

# The University of New Mexico Faculty Senate

## Faculty Senate Meeting Agenda March 22, 2016 3:00 P.M. Scholes Hall Roberts Room

### AGENDA TOPICS

3:00 1. Approval of Agenda

2. Acceptance of the [February 23, 2016 Minutes](#)

3:05 3. [Posthumous Degree For Markel Byrd](#)

3:10 4. Faculty Senate President's Report

### TYPE OF ITEMS/ PRESENTER(S)

**Action:**  
FS President Stefan Posse

**Action:**  
FS President Stefan Posse

**Information:**  
Dean Kate Krause

**Information:**  
FS President Stefan Posse

### CONSENT AGENDA TOPICS

3:25 7. Form C from the Curricula Committee

**Action:**  
FS President-Elect Pamela Pyle

[C1678 MPH - Health Systems, Services, and Policy Concentration](#)  
[C1789 BS Nuclear Engineering](#)  
[C1783 Art Education Minor](#)  
[C1682 Master of Engineering in Civil Engineering](#)  
[C1415 MS in Physical Education Exercise Science Concentration](#)  
[C1571 GCERT Applied Behavior Analysis: Research Based Interventions for Individuals](#)  
[C1603 Associate of Arts in Criminology](#)  
[C1604 GCERT Instruction for Students with Intensive Social, Language, and Behavioral Needs](#)  
[C1627 Community Health Education Minor \(NEW\)](#)  
[C1644 Master of Accounting Professional Accounting Concentration](#)  
[C1650 PhD in PESES Exercise Science](#)  
[C1690 Bachelor of Science in Environmental Science](#)  
[C1691 Environmental Science Minor](#)  
[C1694 Graduate Certificate in Women Studies](#)  
[C1695 PhD Psychology Quantitative Methodology Concentration & Emphasis](#)  
[C1705 Master of Architecture Plan III](#)  
[C1713 Master of Community and Regional Planning](#)  
[C1714 Bachelor of Arts Environmental Planning and Design Landscape Architecture Concentration](#)  
[C1715 Bachelor of Arts in Music](#)  
[C1721 Ph.D. in Psychology with M.S. Enroute](#)  
[C1722 PhD Psychology Clinical Concentration](#)  
[C1723 CS 108L UNM Core Course \(NEW\)](#)  
[C1727 Master of Accounting Advanced Concentration](#)  
[C1728 Master of Accounting Tax Concentration](#)  
[C1729 Master of Accounting Information Assurance Concentration](#)  
[C1732 \(Dual Degree\) MCRP/MA Latin American Studies](#)  
[C1733 MBA Management Information Systems Concentration](#)  
[C1737 M.A. Economics Plan II](#)  
[C1738 MCRP Indigenous Planning Concentration \(NEW\)](#)  
[C1740 AA Early Childhood Multicultural Education LA](#)  
[C1741 AA PreProfessional Elementary Education \(LA\)](#)  
[C1760 AS Computer Science \(LA\)](#)  
[C1776 M.S. in Mechanical Engineering](#)  
[C1791 Architecture Minor \(NEW\)](#)  
[C1792 Design Studies Minor \(NEW\)](#)  
[C1794 Master of Architecture Track Three](#)  
[C1795 Master of Architecture Track 2.5](#)  
[C1796 Master of Architecture Track Two](#)  
[C1812 MS Chemical Engineering](#)  
[C1779 U.S. and Global Diversity and Inclusion UG Degree](#)  
[C1361 BA Family Studies](#)  
[C1362 Human Development and Family Relations Minor](#)  
[C1667 MS Information Systems & Assurance](#)  
[C1680 MFA in Dance](#)  
[C1683 PhD Biomedical Sciences Infectious Disease & Immunology Concentration](#)  
[C1697 BS Human Development & Family Relations](#)  
[C1698 Family Studies Minor](#)  
[C1699 BS Family and Child Studies Human Development & Family Relations Concentration](#)  
[C1701 BS Family Studies](#)  
[C1702 PhD Latin American Studies w/ MA En Route](#)  
[C1703 PhD Latin American Studies Communication Concentration](#)  
[C1704 MA Latin American Studies](#)  
[C1706 BS Early Childhood Multicultural Education](#)  
[C1708 BS Family and Child Studies Early Childhood Multicultural Ed Licensure PreK to Grade 3 Concent](#)  
[C1709 BS Family and Child Studies Early Childhood Education & Development Concentration](#)  
[C1726 PhD Sociology](#)  
[C1747 MA Spanish/Hispanic Linguistics Concentration](#)  
[C1790 BAA Design Studies Concentration \(NEW\)](#)  
[C1793 BAA PreProfessional Concentration \(NEW\)](#)  
[C1799 Bachelor of Music, Theory and Composition Concentration](#)  
[C1800 Bachelor of Music Education, Instrumental Concentration](#)  
[C1801 Bachelor of Music Education, Vocal Concentration](#)  
[C1811 MS Biomedical Engineering](#)  
[C1813 BSME Mechanical Engineering](#)  
[C1824 Family and Child Studies \(FCS\) Subject Code](#)

**AGENDA TOPICS**

|      |                                                                                                                                    |                                                                                                    |
|------|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| 3:30 | 8. <a href="#">Form D For Graduate Certificate in Race and Social Justice</a>                                                      | <b>Action:</b> Professor Nancy Lopez                                                               |
| 3:35 | 9. Faculty Athletic Representative Report                                                                                          | <b>Information:</b><br>Faculty Representative of NCAA ,<br>Amy Neel                                |
| 3:50 | 10. Talent Managment System-UNMjobs                                                                                                | <b>Information:</b><br>Theresa Ramos, Director of the<br>Office of Faculty Affairs and<br>Services |
| 4:05 | 11. <a href="#">Free Speech Survey</a> Vote                                                                                        | <b>Action:</b> FS President Stefan<br>Posse                                                        |
| 4:15 | 12. Dean of Students<br>- Classroom Management<br>- Handling Disruptive and Disturbing Student Behavior<br>- Resources for Faculty | <b>Information:</b><br>Clery Act Compliance Officer,<br>Rob Burford                                |
| 4:30 | 13. Discussion on Changes in Regent's Policies regarding HSC Governance                                                            | <b>Information:</b> Provost Abdallah,<br>FS President Stefan Posse                                 |
| 5:00 | 14. Adjournment                                                                                                                    |                                                                                                    |

**NOTES:**

1. All faculty are invited to attend Faculty Senate meetings.
2. Full agenda packets are available at <http://www.unm.edu/~facsen/>
3. All information pertaining to the Faculty Senate can be found at <http://www.unm.edu/~facsen/>
4. Questions should be directed to the Office of the Secretary, Scholes 103, 277-4664
5. Information found in agenda packets is in draft form only and may not be used for quotes or dissemination of information until approved by the Faculty Senate.

Current user: ctorres / **Comments (14)** / Form Transaction Log  
**Curriculum Workflow**



[Link to Curricula Forms Process Manual](#)

**DEGREE/PROGRAM CHANGE  
 FORM C**  
 Form Number: C1415



Fields marked with \* are required

Name of Initiator: Ann Gibson Email: [alg@unm.edu](mailto:alg@unm.edu) Phone Number: 505 277-8173 Date: 08-24-2014  
 Associated Forms exist?\* Yes Initiator's Title\* Associate Professor: Health Exercise & Sports Scie  
 Faculty Contact\* Ann Gibson Administrative Contact\* Todd Seidler  
 Department\* HESS Admin Email\* tseidler@unm.edu  
 Branch Admin Phone\* 277-2783

Proposed effective term

Semester Fall Year 2016

**Course Information**

Select Appropriate Program\* Graduate Degree Program  
 Name of New or Existing Program\* MS in Physical Education - Exercise Science Concentration  
 Select Category \* Concentration Degree Type MS  
 Select Action Revision

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***  
 See current catalog for format within the respective college (upload a doc/pdf file)

[Current and proposed POS - MS in PE - Exercise Science.pdf](#)

☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.

**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

The changes to the MS (Exercise Science) curriculum are two-fold: (A) Adjust credit hours for the UG/GR course PE-P 470/502 from 3 to 4 cr hr  
 This is a cross-listed class and the cr hrs need to match at both the UG and GR level. (B) We have made PE-P 544 Physiology of Resistance  
 Training a required course at the graduate level (MS and PhD) in order to address requests commonly received during exit interviews with our  
 students.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty  
 workload implications.\*** (upload a doc/pdf file)

[Justification for MSc Ex Sci changes for Form C.pdf](#)

☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.

**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)

**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)

[Approve and Sign Off](#)

[Send back to Initiator \(Ann Gibson\)  
 Comment on this Form](#)

[Committee Review](#)



Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001

Proposed changes to Ex Sci MSc Curriculum as approved by HESS faculty August 2013

1. Rename PE-P 501 from “Intermediate Exercise Physiology” to “Advanced Exercise Physiology”; this will become a graduate only course as it will be dropped from UG curriculum (Form “A” accompanying packet)
2. Sunset PE-P 536 Biochemistry Lab (Form “A” accompanying packet)
3. Replace PE-P 535 with new course PE-P 527 Metabolic Considerations of Exercise Physiology as much of the research in our field is focusing on metabolic aspects of exercise; additionally, the field is going more molecular and this revised course will prepare the students to better follow the trends in the field.
4. Add new course PE-P 544 Physiology of Resistance Training to curriculum given new programmatic capabilities to support pursuit of strength and conditioning careers
5. Note proposed change to PE-P 502 Designs for Fitness from a 3 cr class to a 4 cr class given the enormous amount of theoretical and practical skill now required for fitness industry careers and certifications

In a nutshell, our Ex Sci grad curriculum has not changed in at least the past 14 years, but the field has changed substantially. We believe our proposed curricular modifications reflect these changes and student feedback gathered over the past 4 years. Proposed changes to the MSc curriculum complement concurrently proposed changes to the PhD and Undergraduate curricula.

Many of our Exercise Science undergrads apply for the MSc in Exercise Science or the Generalized MSc in Physical Education. Until the proposed changes are made, there are few, if any, Exercise Science related 500-level courses they can take as they already took the cross-listed undergraduate course.

Additionally, we are limited by lab space and the need to comply with Fire Marshall caps; given the fact that Designs is a cross-listed course (PE-P 470/502) and required by Exercise Science and Athletic Training, enrollment can easily surpass the Fire Code cap. Therefore, we need to officially create lab sections as indicated in the PEP470/502 Form “A” in order to accommodate everyone and make the practical skill development meaningful.

There is no anticipated need for new faculty to address these proposed changes. By creating lab sections for PEP470/502 we will be better able to utilize the existing facilities and remain within the confines of the Fire Code capacity limitations. Furthermore, adjusting the cr hr from 3 to 4 (PEP470/502) will, finally, recognize the amount of faculty and student time and effort inherent in teaching, learning and mastering the hands-on skills required of those pursuing a career or advanced education in Exercise Science/Physiology. In terms of long-range planning, the need for lab sections will require coordinated scheduling efforts. At the MSc level, there is a 1 cr hr increase in total credit hours required for graduation which will potentially increase departmental revenue.



### MS in Physical Education - Exercise Science

#### **CURRENT PROGRAM OF STUDY (34 CREDIT HOURS)**

##### **REQUIRED COURSES (28 Credit Hours)**

|                                                            |   |
|------------------------------------------------------------|---|
| EDPY 603 Applied Statistical Design and Analysis           | 3 |
| : Note: Currently substituting EDPY 511 for EDPY 603       | 3 |
| EDPY 505 Conducting Qualitative Educational Research       | 3 |
| <b>or</b>                                                  |   |
| PEP 507 Research Design in HPER                            | 3 |
| PEP 500 Exercise Science Seminar                           | 1 |
| PEP 501 Intermediate Exercise Physiology                   | 3 |
| PEP 502 Designs for Fitness                                | 3 |
| PEP 503 EKG Interpretation                                 | 3 |
| PEP 508 Exercise Testing and Interpretation                | 3 |
| PEP 530 Laboratory Procedures and Instrumentation in Appli | 3 |
| PEP 532 Body Composition                                   | 3 |
| PEP 696 Internship                                         | 3 |

Elective courses (6 cr hr)\*

6

[Elective courses from MS Exercise Science \(below\)](#)

or related disciplines (e.g. Nutr, Biol, Biom, Chem, etc.)  
may be substituted for any required courses that were  
taken prior to acceptance into MSc program

##### **MS EXERCISE SCIENCE ELECTIVES**

PEP 523 Biomechanics  
PEP 528 Neuromuscular Performance  
PEP 535 Exercise Biochemistry  
PEP 579 Sports Physiology  
PEP 587 Physical Activity and Aging  
PEP 625 Writing for Professional Publication  
PEP 627 Seminar in Applied Physiology  
PEP 593 Selected Topics:  
Exercise Biochemistry Laboratory  
Exercise Endocrinology  
Exercise in Extreme Environments  
Pediatric Exercise Physiology

\* Advisor approval required; POS committee  
approval required for course substitutions

#### **PROPOSED PROGRAM OF STUDY (35 CREDIT HOURS)**

##### **REQUIRED COURSES (32 Credit Hours)**

|                                                                |   |
|----------------------------------------------------------------|---|
| EDPY 603 Applied Statistical Design and Analysis               | 3 |
| or                                                             |   |
| EDPY 511 Intro Educational Statistics                          | 3 |
| EDPY 505 Conducting Quantitative Educational Research          | 3 |
| <b>or</b>                                                      |   |
| PEP 507 Research Design in HPER                                | 3 |
| PEP 500 Exercise Science Seminar                               | 1 |
| PEP 501 Advanced Exercise Physiology                           | 3 |
| PEP 502 Designs for Fitness                                    | 4 |
| PEP 503 EKG Interpretation                                     | 3 |
| PEP 508 Exercise Testing and Interpretation                    | 3 |
| PEP 530 Laboratory Procedures and Instrumentation in Applied P | 3 |
| PEP 532 Body Composition                                       | 3 |
| PEP 544 Physiology of Resistance Training                      | 3 |
| PEP 696 Internship                                             | 3 |

Elective course options (3 cr hr)\*

3

[Elective courses from MS PE - Exercise Science \(below\)](#)

or related disciplines (e.g. Nutr, Biol, Biom, Chem, etc.)  
may be substituted for any required courses that were taken  
prior to acceptance into MSc program

##### **MS PE - EXERCISE SCIENCE ELECTIVES**

PEP 528 Neuromuscular Performance  
PEP 527 Metabolic Considerations of Exercise Science  
PEP 562 Exercise in Extreme Environments  
PEP 579 Sports Physiology  
PEP 587 Physical Activity and Aging  
PEP 593 Selected Topics:

\* Advisor approval required; POS committee approval  
required for course substitutions

Current user: ctorres / **Comments (8)** / Form Transaction Log

## Curriculum Workflow



[Link to Curricula Forms Process Manual](#)

### DEGREE/PROGRAM CHANGE FORM C Form Number: C1789



Fields marked with \* are required

Name of Initiator: Gary Cooper Email: [garywc@unm.edu](mailto:garywc@unm.edu) Phone Number: 505 277-2557 Date: 10-30-2015  
**Associated Forms exist?\*** No **Initiator's Title\*** Associate Professor: Chemical & Nuclear Engineerin  
**Faculty Contact\*** Gary Cooper **Administrative Contact\*** Elaine Finke  
**Department\*** Nuclear Engineering **Admin Email\*** [efinke01@unm.edu](mailto:efinke01@unm.edu)  
**Branch** Main **Admin Phone\*** 277-2692

Proposed effective term

Semester **Fall** Year **2016**

### Course Information

**Select Appropriate Program\*** Undergraduate Degree Program **Name of New or Existing Program\*** BS Nuclear Engineering  
**Select Category \*** Major Degree Type BS  
 Select Action **Revision**

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***  
 See current catalog for format within the respective college (upload a doc/pdf file)

[Proposed Wording Changes\\_BS Nuclear Engineering.docx](#)

☒ Does this change affect other departmental program/branch campuses? If yes, indicate below.

**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

Technically we are adding a general technical elective which could be fulfilled by a nuclear engineering course but just as likely might be a mathematics class, mechanical engineering class, etc. However, the requirement for a general technical elective has always been required (until erroneously eliminated in the recent reduction in hours. Thus, we are not increasing workloads on any outside department beyond what they have always supported in the past.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)

[Justifications for Changes to the BS Nuclear Engineering Program.docx](#)

☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.

**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)

**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)

[Approve and Sign Off](#)

[Send back to Initiator \(Gary Cooper\)  
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[Committee Review](#)



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Curriculum in Nuclear Engineering

~~The Bachelor of Science Program in Nuclear Engineering is accredited by the Engineering Accreditation Commission of ABET.~~

The Bachelor of Science Nuclear Engineering Program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

~~Credit h~~Hours required for graduation: 124 <sup>(15)</sup>

|                                           |                                                                            | Credit Hours |
|-------------------------------------------|----------------------------------------------------------------------------|--------------|
| First Year                                | First Semester                                                             |              |
| NE 101                                    | Introduction to Nuclear Engineering                                        | 1            |
| CHEM 121                                  | General Chemistry                                                          | 3            |
| CHEM 123L                                 | General Chemistry Laboratory                                               | 1            |
| ENGL 110<br>(or ENGL 112;<br>or ENGL 113) | Accelerated Composition<br>(or Composition II;<br>or Enhanced Composition) | 3            |
| MATH 162                                  | Calculus I                                                                 | 4            |
|                                           | Core Humanities Elective <sup>(24)</sup>                                   | 3            |
|                                           |                                                                            | 15           |
|                                           | Second Semester                                                            |              |
| PHYC 160                                  | General Physics                                                            | 3            |
| CHEM 122                                  | General Chemistry II                                                       | 3            |
| CHEM 124L                                 | General Chemistry II Laboratory                                            | 1            |
| MATH 163                                  | Calculus II                                                                | 4            |
| ENGL 120                                  | Composition III                                                            | 3            |

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|         |                                                  |           |
|---------|--------------------------------------------------|-----------|
| CS 151L | Computer Programming Fundamentals for Non-Majors | 3         |
|         |                                                  | <b>17</b> |

**Second Year      First Semester**

|          |                                    |           |
|----------|------------------------------------|-----------|
| NE 230   | Principles of Radiation Protection | 3         |
| PHYC 161 | General Physics                    | 3         |
| MATH 264 | Calculus III                       | 4         |
| ENGL 219 | Technical and Professional Writing | 3         |
| ECON 105 | Introductory Macroeconomics        | 3         |
|          |                                    | <b>16</b> |

**Second Semester**

|            |                                              |           |
|------------|----------------------------------------------|-----------|
| NE 213     | Laboratory Electronics for Nuclear Engineers | 3         |
| NE 231     | Principles of Nuclear Engineering            | 3         |
| NE 314     | Thermodynamics and Nuclear Systems           | 3         |
| NE 371     | Nuclear Materials Engineering                | 2         |
| MATH **316 | Applied Ordinary Differential Equations      | 3         |
|            |                                              | <b>14</b> |

**Third Year      First Semester**

|           |                                                        |   |
|-----------|--------------------------------------------------------|---|
| NE 311    | Introduction to Transport Phenomena                    | 3 |
| NE 315    | Nuclear Engineering Analysis and Calculations          | 3 |
| NE **323L | Radiation Detection and Measurement                    | 3 |
| CE 202    | Engineering Statics                                    | 3 |
|           | Nuclear Engineering Technical Elective <sup>(34)</sup> | 3 |

15

Second Semester

|         |                                                                   |   |
|---------|-------------------------------------------------------------------|---|
| NE 312  | Unit Operations                                                   | 3 |
| NE 313L | Introduction to Laboratory Techniques for Nuclear Engineering     | 3 |
| NE *330 | Nuclear Engineering Science                                       | 3 |
|         | <del>Nuclear Engineering</del> Technical Elective <sup>(44)</sup> | 3 |
|         | Core Fine Arts Elective <sup>(2)</sup>                            | 3 |

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15

Fourth Year <sup>(52)</sup> <sup>(62)</sup> First Semester

|          |                                            |   |
|----------|--------------------------------------------|---|
| NE *410  | Nuclear Reactor Theory                     | 3 |
| NE 462   | Monte Carlo Techniques for Nuclear Systems | 3 |
| NE 464   | Thermal-Hydraulics of Nuclear Systems      | 3 |
| NE *497L | Nuclear Engineering Computational Methods  | 3 |
|          | Core Humanities Elective <sup>(24)</sup>   | 3 |

15

Second Semester

|          |                                                             |   |
|----------|-------------------------------------------------------------|---|
| NE *413L | Nuclear Engineering Laboratory I                            | 3 |
| NE 452   | Senior Seminar                                              | 1 |
| NE 470   | Nuclear Fuel Cycle and Materials                            | 3 |
| NE 498L  | Nuclear Engineering Design                                  | 4 |
|          | Core Second Language <sup>(24)</sup>                        | 3 |
|          | Core Social and Behavioral Science Elective <sup>(24)</sup> | 3 |

## Footnotes:

<sup>(15)</sup> To count towards graduation credit hours, each course must be completed with a grade of "C-" or better. Courses used to fulfill the UNM Core Curriculum require a grade of "C" or better.

<sup>(24)</sup> Students should consult the UNM catalog, LoboTrax, or an advisor to obtain a list of acceptable courses to fulfill the core curriculum requirements. These courses may be taken whenever convenient.

~~<sup>(2)</sup> Students must file an application for the B.S.N.E. degree prior to the completion of 95 credit hours of applicable courses.~~

~~<sup>(3)</sup> Students are encouraged to take the Fundamentals of Engineering (FE) Examination during their senior year. This is the first formal step toward professional registration.~~

<sup>(34)</sup> The NE Technical Elective is chosen from a list of approved upper-division nuclear engineering courses with the approval of the student's advisor.

~~<sup>(5)</sup> To count towards graduation credit hours, each course must be completed with a grade of "C-" or better. Courses used to fulfill the UNM Core Curriculum require a grade of "C" or better.~~

<sup>(4)</sup> The Technical Elective is chosen from a list of approved upper-division technical courses with the approval of the student's advisor.

<sup>(5)</sup> Students must file an application for the B.S.N.E. degree prior to the completion of 95 credit hours of applicable courses.

<sup>(6)</sup> Students are encouraged to take the Fundamentals of Engineering (FE) Examination during their senior year. This is the first formal step toward professional registration.

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#### Reasons for Requested Changes to the BS Nuclear Engineering Program

1. The change to the accreditation statement is required to conform to the specific wording required by the engineering accrediting board: ABET.
2. We are changing the required technical electives from two nuclear engineering specific courses to one nuclear engineering technical elective and one general technical elective. When we submitted the original change in our program to reduce the number of required hours, we reduced the number of technical electives from two nuclear engineering technical electives and one general technical elective to two total technical electives. The intent had been to require one nuclear engineering technical elective and one general technical elective. Somehow, in submitting the Form C, the requirement was erroneously listed as two nuclear engineering technical electives. Thus, this change is to correct that original mistake. The faculty believe that because we have a diverse student population, that they need a wider choice of technical electives than they would have if limited to nuclear engineering courses alone. This change required adding a footnote.
3. The remaining changes are simply rearranging the footnotes and do not change anything in the program.

Other than as noted in the “effect on other departmental programs” there are no budgetary or workload issues.

Current user: ctorres / **Comments (6)** / Form Transaction Log**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1783

Fields marked with \* are required

Name of Initiator: Claudia Valdes Email: [cxvaldes@unm.edu](mailto:cxvaldes@unm.edu) Phone Number: 505 277-5861 Date: 10-30-2015

Associated Forms exist?\* No Initiator's Title\* Associate Professor: Art Art History

Faculty Contact\* Nancy Pauly

Administrative Contact\* Claudia Valdes

Department\* Art and Art History

Admin Email\* [cxvaldes@unm.edu](mailto:cxvaldes@unm.edu)

Branch Main

Admin Phone\* 277-5861

Proposed effective term

Semester Fall Year 2016

**Course Information**

Select Appropriate Program\* Undergraduate Degree Program

Name of New or Existing Program\* Art Education Minor

Select Category \* Minor Degree Type

Select Action Deletion

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

Delete Minor Study in Art Education. This minor is insufficient in providing knowledge and preparation to teach art in elementary schools. Students with an elementary education degree with this minor compete for jobs with art education majors who are much more qualified for those positions. There has been only student in the minor in the last 15 years. The faculty does not believe the minor serves any useful purpose. There are not students currently enrolled in the minor, thus no accommodations need to be made. There are no current students enrolled in this program. No accommodations need to met.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[Approve and Sign Off](#)[Send back to Initiator \(Claudia Valdes\)  
Comment on this Form](#)[Committee Review](#)

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**Current user: ctorres / Comments (11) / Form Transaction Log**  
**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1682

Fields marked with \* are required

Name of Initiator: Mark Charles Stone Email: [stone@unm.edu](mailto:stone@unm.edu) Phone Number: 505 277-0115 Date: 09-30-2015Associated Forms exist?\*  Initiator's Title\* Associate Professor: Civil Engineering Civil Engr

Faculty Contact\* Mark Stone

Administrative Contact\* Nicole Bingham

Department\* Civil Engineering

Admin Email\* [nicluna@unm.edu](mailto:nicluna@unm.edu)

Branch

Admin Phone\* 505 277-6633

Proposed effective term

Semester  Year **Course Information**Select Appropriate Program\* 

Name of New or Existing Program\* Master of Engineering in Civil Engineering

Select Category\*  Degree Type MENGSelect Action **Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[FormC\\_MENG\\_2015\\_revisedcatalogtextV2.docx](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

This proposal is for minor revisions to an existing program. Two substantial changes are proposed. (1) We propose dropping the requirement for two semesters of graduate seminar, which has proven to be burdensome for the students in the program who are primarily fulltime working professionals. (2) We propose changing to a Plan III degree option to eliminate the exit exam requirement. The exam creates an additional burden for students and faculty while testing students on knowledge that they have already demonstrated through their coursework.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[FormC\\_MENG\\_2015\\_justification.docx](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)**Approve and Sign Off****Send back to Initiator (Mark Charles Stone)**  
**Comment on this Form****Committee Review**

Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001

## Existing Catalog Text

### Master of Engineering in Civil Engineering

The Master of Engineering (M.Eng.) in Civil Engineering degree meets the needs of students and practitioners who seek a practice-oriented engineering degree, and is based on course work only without a written thesis or defense. The engineering profession is requesting that students be provided more exposure to engineering design and practice beyond those currently available to undergraduate students. This would specifically include additional training in the traditional studies of engineering science and design, along with expanded emphasis on communication skills (both written and oral) and engineering management.

The M.Eng. degree requirements are:

1. 33 credit hours total, plus 2 credit hours of CE 691 (Seminar).
2. At least 15 credit hours of practice-oriented-content graduate level civil engineering classes shall constitute the student's core.
3. At least 12 elective credit hours of course work from within or outside the department which support the student's area of interest;
4. At least 6 credit hours of classes in program/project management.
5. A maximum of 12 credit hours can be taken under non-degree status
6. At least 18 credit hours must be numbered 500 or higher
7. Not more than 15 credit hours can be taken from a single instructor
8. General UNM limits, including transfer credit, course work from a single professor, and time of completion.

## Proposed Catalog Text

### Master of Engineering in Civil Engineering

The Master of Engineering (MENG) in Civil Engineering degree is a coursework-only (*Plan III*) degree with a focus on professional practice. Graduate study leading to the MENG degree will be offered within or by combining six focus areas of civil engineering: construction engineering, environmental engineering, geotechnical engineering, structural engineering and material science, transportation engineering, and water resources-hydraulic engineering.

The MENG degree requirements are:

1. 33 credit hours of graduate coursework.
2. 15 credit hours of practice-oriented civil engineering classes.
3. 12 additional credit hours of coursework that support the student's area of interest.
4. 6 additional credit hours that advance the student's management skillset.
5. A maximum of 12 credit hours can be taken in transfer and/or non-degree graduate student status.
6. At least 18 credit hours must be numbered 500 or higher
7. Not more than 15 credit hours can be taken from a single instructor
8. General UNM limits, including transfer credit, course work from a single professor, and time of completion.

**Justification for the program**

The MENG exit exam creates an additional burden for students and faculty while testing students on knowledge that they have already demonstrated through their coursework. The CE seminar is focused on the graduate research program and thus is not highly relevant for the practice-oriented MENG degree program. Further, the CE seminar is consistently over-capacity and thus removal of this requirement will help students to complete their programs in a timely manner.

There will be no impact on other departmental programs/branch campuses.

**Impact on long-range planning**

The proposed change is well aligned with the long-range plans of UNM, Graduate Studies, SOE, and the CE department. Specifically, the changes will promote increased enrollment in the CE MENG degree program by simplifying the requirements and removal of a barrier from graduation. The existing MENG exit exam under our Plan II option is confusing, intimidating for students, and difficult to administer in a fair and consistent manner. The CE graduate programs committee is working to develop a comprehensive outcomes assessment in anticipation of this request being approved. The outcomes assessment will be coordinated with the SOE Dean's Office and Graduate Studies.

**Detailed budget analysis and faculty workload implications**

There will be no budget impacts from the proposed changes outside of the anticipated increase in enrollment within the MENG degree program. There will be no impact on faculty workload other than the reduced service requirement associated with serving on MENG exit exams.

**Current user: ctorres / Comments (14) / Form Transaction Log**  
**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1415

Fields marked with \* are required

Name of Initiator: Ann Gibson Email: [alg@unm.edu](mailto:alg@unm.edu) Phone Number: 505 277-8173 Date: 08-24-2014  
**Associated Forms exist?\*** Yes  **Initiator's Title\*** Associate Professor: Health Exercise & Sports Scie  
**Faculty Contact\*** Ann Gibson **Administrative Contact\*** Todd Seidler  
**Department\*** HESS **Admin Email\*** tseidler@unm.edu  
**Branch** **Admin Phone\*** 277-2783

**Proposed effective term**Semester  Year **Course Information**

**Select Appropriate Program\***   
**Name of New or Existing Program\*** MS in Physical Education - Exercise Science Concentration  
**Select Category \***  Degree Type MS  
Select Action

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***  
See current catalog for format within the respective college (upload a doc/pdf file)

[Current and proposed POS - MS in PE - Exercise Science.pdf](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

The changes to the MS (Exercise Science) curriculum are two-fold: (A) Adjust credit hours for the UG/GR course PE-P 470/502 from 3 to 4 cr hr  
This is a cross-listed class and the cr hrs need to match at both the UG and GR level. (B) We have made PE-P 544 Physiology of Resistance  
Training a required course at the graduate level (MS and PhD) in order to address requests commonly received during exit interviews with our  
students.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)

[Justification for MSc Ex Sci changes for Form C.pdf](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[Approve and Sign Off](#)[Send back to Initiator \(Ann Gibson\)](#)  
[Comment on this Form](#)[Committee Review](#)

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Proposed changes to Ex Sci MSc Curriculum as approved by HESS faculty August 2013

1. Rename PE-P 501 from “Intermediate Exercise Physiology” to “Advanced Exercise Physiology”; this will become a graduate only course as it will be dropped from UG curriculum (Form “A” accompanying packet)
2. Sunset PE-P 536 Biochemistry Lab (Form “A” accompanying packet)
3. Replace PE-P 535 with new course PE-P 527 Metabolic Considerations of Exercise Physiology as much of the research in our field is focusing on metabolic aspects of exercise; additionally, the field is going more molecular and this revised course will prepare the students to better follow the trends in the field.
4. Add new course PE-P 544 Physiology of Resistance Training to curriculum given new programmatic capabilities to support pursuit of strength and conditioning careers
5. Note proposed change to PE-P 502 Designs for Fitness from a 3 cr class to a 4 cr class given the enormous amount of theoretical and practical skill now required for fitness industry careers and certifications

In a nutshell, our Ex Sci grad curriculum has not changed in at least the past 14 years, but the field has changed substantially. We believe our proposed curricular modifications reflect these changes and student feedback gathered over the past 4 years. Proposed changes to the MSc curriculum complement concurrently proposed changes to the PhD and Undergraduate curricula.

Many of our Exercise Science undergrads apply for the MSc in Exercise Science or the Generalized MSc in Physical Education. Until the proposed changes are made, there are few, if any, Exercise Science related 500-level courses they can take as they already took the cross-listed undergraduate course.

Additionally, we are limited by lab space and the need to comply with Fire Marshall caps; given the fact that Designs is a cross-listed course (PE-P 470/502) and required by Exercise Science and Athletic Training, enrollment can easily surpass the Fire Code cap. Therefore, we need to officially create lab sections as indicated in the PEP470/502 Form “A” in order to accommodate everyone and make the practical skill development meaningful.

There is no anticipated need for new faculty to address these proposed changes. By creating lab sections for PEP470/502 we will be better able to utilize the existing facilities and remain within the confines of the Fire Code capacity limitations. Furthermore, adjusting the cr hr from 3 to 4 (PEP470/502) will, finally, recognize the amount of faculty and student time and effort inherent in teaching, learning and mastering the hands-on skills required of those pursuing a career or advanced education in Exercise Science/Physiology. In terms of long-range planning, the need for lab sections will require coordinated scheduling efforts. At the MSc level, there is a 1 cr hr increase in total credit hours required for graduation which will potentially increase departmental revenue.

### MS in Physical Education - Exercise Science

#### **CURRENT PROGRAM OF STUDY (34 CREDIT HOURS)**

##### **REQUIRED COURSES (28 Credit Hours)**

|                                                            |   |
|------------------------------------------------------------|---|
| EDPY 603 Applied Statistical Design and Analysis           | 3 |
| : Note: Currently substituting EDPY 511 for EDPY 603       | 3 |
| EDPY 505 Conducting Qualitative Educational Research       | 3 |
| <b>or</b>                                                  |   |
| PEP 507 Research Design in HPER                            | 3 |
| PEP 500 Exercise Science Seminar                           | 1 |
| PEP 501 Intermediate Exercise Physiology                   | 3 |
| PEP 502 Designs for Fitness                                | 3 |
| PEP 503 EKG Interpretation                                 | 3 |
| PEP 508 Exercise Testing and Interpretation                | 3 |
| PEP 530 Laboratory Procedures and Instrumentation in Appli | 3 |
| PEP 532 Body Composition                                   | 3 |
| PEP 696 Internship                                         | 3 |

Elective courses (6 cr hr)\*

6

[Elective courses from MS Exercise Science \(below\)](#)

or related disciplines (e.g. Nutr, Biol, Biom, Chem, etc.)  
may be substituted for any required courses that were  
taken prior to acceptance into MSc program

##### **MS EXERCISE SCIENCE ELECTIVES**

PEP 523 Biomechanics  
PEP 528 Neuromuscular Performance  
PEP 535 Exercise Biochemistry  
PEP 579 Sports Physiology  
PEP 587 Physical Activity and Aging  
PEP 625 Writing for Professional Publication  
PEP 627 Seminar in Applied Physiology  
PEP 593 Selected Topics:  
Exercise Biochemistry Laboratory  
Exercise Endocrinology  
Exercise in Extreme Environments  
Pediatric Exercise Physiology

\* Advisor approval required; POS committee  
approval required for course substitutions

#### **PROPOSED PROGRAM OF STUDY (35 CREDIT HOURS)**

##### **REQUIRED COURSES (32 Credit Hours)**

|                                                                |   |
|----------------------------------------------------------------|---|
| EDPY 603 Applied Statistical Design and Analysis               | 3 |
| or                                                             |   |
| EDPY 511 Intro Educational Statistics                          | 3 |
| EDPY 505 Conducting Quantitative Educational Research          | 3 |
| <b>or</b>                                                      |   |
| PEP 507 Research Design in HPER                                | 3 |
| PEP 500 Exercise Science Seminar                               | 1 |
| PEP 501 Advanced Exercise Physiology                           | 3 |
| PEP 502 Designs for Fitness                                    | 4 |
| PEP 503 EKG Interpretation                                     | 3 |
| PEP 508 Exercise Testing and Interpretation                    | 3 |
| PEP 530 Laboratory Procedures and Instrumentation in Applied P | 3 |
| PEP 532 Body Composition                                       | 3 |
| PEP 544 Physiology of Resistance Training                      | 3 |
| PEP 696 Internship                                             | 3 |

Elective course options (3 cr hr)\*

3

[Elective courses from MS PE - Exercise Science \(below\)](#)

or related disciplines (e.g. Nutr, Biol, Biom, Chem, etc.)  
may be substituted for any required courses that were taken  
prior to acceptance into MSc program

##### **MS PE - EXERCISE SCIENCE ELECTIVES**

PEP 528 Neuromuscular Performance  
PEP 527 Metabolic Considerations of Exercise Science  
PEP 562 Exercise in Extreme Environments  
PEP 579 Sports Physiology  
PEP 587 Physical Activity and Aging  
PEP 593 Selected Topics:

\* Advisor approval required; POS committee approval  
required for course substitutions

Current user: ctorres / **Comments (15)** / Form Transaction Log

## Curriculum Workflow



[Link to Curricula Forms Process Manual](#)

### DEGREE/PROGRAM CHANGE FORM C Form Number: C1571



Fields marked with \* are required

Name of Initiator: Susan Copeland Email: [susanrc@unm.edu](mailto:susanrc@unm.edu) Phone Number: 505 277-0628 Date: 11-10-2014

Associated Forms exist?\* Yes Initiator's Title\* Professor: Educational Specialties

Faculty Contact\* Susan Copeland

Administrative Contact\* Gloria Carol

Department\* Educational Specialties

Admin Email\* [gcarol@unm.edu](mailto:gcarol@unm.edu)

Branch

Admin Phone\* 277-8950

Proposed effective term

Semester Summer Year 2016

#### Course Information

Select Appropriate Program\* Graduate Degree Program

Name of New or Existing Program\* GCERT Applied Behavior Analysis: Research Based Interventions for Individuals who Have Behavioral Ch

Select Category\* Certificate Degree Type GCERT

Select Action Revision

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[Current and Proposed Catalog View-2.docx](#)

☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.

**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

We are making two revision requests. The first request is to revise one of the requirements for the transcribed Graduate Certificate in Applied Behavior Analysis. The transcribed Graduate Certificate in Applied Behavior Analysis: Research Based Interventions for Individuals who Have Behavioral Challenges currently includes a requirement that students take a final comprehensive exam. This requirement was included to provide students with practice in preparing for the national Behavior Analyst Certification exam. Unfortunately, we have not been able to locate a practice exam that is of sufficient quality and that encompasses information in all the areas covered in the BCBA exam. We are requesting that the requirement for the comprehensive practice exam be deleted from the certificate requirements. The second request is to add unique course numbers for three classes within the program. This first class for which we are requesting a unique course number is SPCD 597 Ethics and Professionalism in Applied Behavior Analysis (has been taught as a topics class and we are now requesting a permanent number/title for it). This addition is required because of changes by the Behavior Analyst Certification Board to certification requirements. Since we created the transcribed graduate certificate in ABA, the Behavior Analyst Certification Board changed the requirements for receiving certification as a Board Certified Behavior Analyst (BCBA) such that individuals seeking this certification must now take a 3 hour graduate course in ethics. The second class we are requesting a unique course number for is SPCD 594 Advanced Field Experience in Applied Behavior Analysis (It has been taught using Dr. Megan Griffin's fieldwork class number, and we are now requesting a permanent number/title for it). The Form Bs for these two additions are attached. The third class for which we are requesting a unique course number is SPCD 594L Advanced Field Experience in Applied Behavior Analysis-Lab. This course has also been taught using Dr. Megan Griffin's fieldwork class number. We are now requesting a permanent number/title for the course. Adding these classes will not change faculty workloads because each of these classes is currently being taught by Dr. Megan Griffin as a part of her normal course load.

[597\\_syllabus.docx](#)

[594L\\_syllabus.docx](#)

[594\\_syllabus.docx](#)

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)

[Impact on Other Departments.docx](#)

☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.

**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)

**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)

[Approve and Sign Off](#)

[Send back to Initiator \(Susan Copeland\)  
Comment on this Form](#)

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## **Impact of Proposed Changes to GCERT Applied Behavior Analysis: Research Based Interventions for Individuals who Have Behavioral Challenges**

### **Impact on Other Departments**

We checked the catalog for course offerings in Psychology and also with the Chair of that department. There were no courses offered in either fieldwork in applied behavior analysis or ethics in applied behavior analysis.

### **Impact on Long-Range Planning, Faculty Workload, and Budget**

The proposed changes to the certificate program have no effect on long-range planning. The two courses (see Form Bs) are ones that have already been taught under a generic number, and we are only requesting that these courses be assigned a formal course number.

There will be no change in faculty workload related to the proposed changes. These courses are already part of Dr Megan Griffin's faculty workload. We are simply asking that the courses be assigned a formal course number/title.

Finally, there are no budget considerations as a result of the proposed changes. The courses are already a part of Dr. Griffin's workload so will not create a change in budget. Also, removing the requirement that students complete a practice exam has no budgetary impact.

## **Current and Proposed Catalog View GCERT Applied Behavior Analysis**

### **Current View**

#### **Graduate Certificate in Applied Behavior Analysis**

##### **Research-based Interventions for Individuals with Disabilities who have Behavioral Challenges**

The Graduate Certificate in Applied Behavior Analysis (ABA): Research-based Interventions for Individuals with Disabilities who have Behavioral Challenges is designed to prepare in-service special and general education teachers and related professionals as well as community providers (e.g., behavior therapists, developmental specialists, early interventionists) to conduct behavioral assessment with children and adults in need of behavior intervention services, provide behavior analytic interpretation of the results, and design and implement appropriate behavior interventions based on assessment results that will be implemented in home, school, and community settings.

The Graduate Certificate program is open to students pursuing a graduate degree in Special Education and in other related fields (e.g., Psychology) at the University of New Mexico and to individuals who minimally hold a bachelor's degree and are interested in advanced training in behavioral analysis and intervention.

The certificate offers two options, each developed prospectively with the designated faculty certificate advisor:

- **Option I:** Students successfully complete a minimum of 12 credit hours of coursework and an approved final capstone project or (2) Students successfully complete the requirements of (1) and also successfully complete an additional 6 credit hours of advanced field experience to fulfill the field experience requirements for credentialing as a Board Certified Behavior Analyst (BCBA).
- **Option II:** Completion of this program prepares a student to sit for the national credentialing exam for BCBAs.

|              |                                                                  |           |
|--------------|------------------------------------------------------------------|-----------|
|              | <b>Prerequisites for Options 1 and 2</b>                         |           |
| SPCD<br>510  | Special Education Law                                            | 3         |
| SPCD<br>519  | Applied Behavioral Analysis in the Classroom                     | 3         |
| SPCD<br>582  | Teaching Students with Intensive Communication Needs             | 3         |
|              | <b>Required Course Work for Option I</b>                         | <b>12</b> |
| SPCD<br>505  | Seminar in Special Education: Advanced Applied Behavior Analysis | 3         |
| SPCD<br>594  | Advanced Field Experience                                        | 3         |
| SPCD<br>619  | The Application of ABA to Academic Research in Special Education | 3         |
| Elective     | approved by faculty certificate advisor                          | 3         |
|              | <b>Required Course Work for Option II</b>                        | <b>18</b> |
| SPCD<br>505  | Seminar in Special Education: Advanced Applied Behavior Analysis | 3         |
| SPCD<br>594L | Advanced Field Experience                                        | 9         |
| SPCD<br>619  | The Application of ABA to Academic Research in Special Education | 3         |
| Elective     | approved by faculty certificate advisor                          | 3         |

### **Proposed View (changed items are bolded)**

Graduate Certificate in Applied Behavior Analysis

Research-based Interventions for Individuals with Disabilities who have Behavioral Challenges

The Graduate Certificate in Applied Behavior Analysis (ABA): Research-based Interventions for Individuals with Disabilities who have Behavioral Challenges is

designed to prepare in-service special and general education teachers and related professionals as well as community providers (e.g., behavior therapists, developmental specialists, early interventionists) to conduct behavioral assessment with children and adults in need of behavior intervention services, provide behavior analytic interpretation of the results, and design and implement appropriate behavior interventions based on assessment results that will be implemented in home, school, and community settings.

The Graduate Certificate program is open to students pursuing a graduate degree in Special Education and in other related fields (e.g., Psychology) at the University of New Mexico and to individuals who minimally hold a bachelor's degree and are interested in advanced training in behavioral analysis and intervention.

The certificate offers two options, each developed **and documented** prospectively with the designated faculty certificate advisor:

- **Option I:** Students successfully complete a minimum of 12 credit hours of coursework and an approved final capstone project. Completion of Option I results in a transcribed graduate certificate but does not result in eligibility to sit for the national credentialing exam as a Board Certified Behavior Analysts (BABC).
- **Option II:** Students successfully complete the requirements of **Option I** and also successfully complete an additional 6 credit hours of advanced field experience to fulfill the field experience requirements for credentialing as a Board Certified Behavior Analyst (BCBA). **Only completion of Option II prepares a student to sit for the national credentialing exam for CBAs.**

|             | Prerequisites for Options 1 and 2                    |   |
|-------------|------------------------------------------------------|---|
| SPCD<br>510 | Special Education Law                                | 3 |
| SPCD<br>519 | Applied Behavioral Analysis in the Classroom         | 3 |
| SPCD<br>582 | Teaching Students with Intensive Communication Needs | 3 |

|                      |                                                                  |           |
|----------------------|------------------------------------------------------------------|-----------|
|                      | Required Course Work for Option I                                | <b>12</b> |
| SPCD<br>505          | Seminar in Special Education: Advanced Applied Behavior Analysis | 3         |
| <b>SPCD<br/>594</b>  | <b>Advanced Field Experience in Applied Behavior Analysis</b>    | 3         |
| SPCD<br>619          | The Application of ABA to Academic Research in Special Education | 3         |
| <b>SPCD<br/>597</b>  | <b>Ethics and Professionalism in Applied Behavior Analysis</b>   | 3         |
|                      | Required Course Work for Option II                               | <b>18</b> |
| SPCD<br>505          | Seminar in Special Education: Advanced Applied Behavior Analysis | 3         |
| <b>SPCD<br/>594</b>  | <b>Advanced Field Experience in Applied Behavior Analysis</b>    | 3         |
| <b>SPCD<br/>594L</b> | <b>Advanced Field Experience in Applied Behavior Analysis</b>    | 6         |
| SPCD<br>619          | The Application of ABA to Academic Research in Special Education | 3         |
| <b>SPCD<br/>597</b>  | <b>Ethics and Professionalism in Applied Behavior Analysis</b>   | 3         |

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## Curriculum Workflow



[Link to Curricula Forms Process Manual](#)

### DEGREE/PROGRAM CHANGE FORM C Form Number: C1603



Fields marked with \* are required

**Name of Initiator:** Jami Lynn Huntsinger **Email:** [jamilynn@unm.edu](mailto:jamilynn@unm.edu) **Phone Number:** 505 925-8623 **Date:** 02-17-2015  
**Associated Forms exist?\*** No **Initiator's Title\*** Assistant Professor: Valencia County Branch  
**Faculty Contact\*** Jami L. Huntsinger **Administrative Contact\*** Jami L. Huntsinger  
**Department\*** Communication, Humanities, English, and Social Sciences **Admin Email\*** jamillynn  
**Branch** Valencia **Admin Phone\*** 505-925-8622

**Proposed effective term**

Semester **Fall** Year **2016**

### Course Information

**Select Appropriate Program\*** Undergraduate Degree Program  
**Name of New or Existing Program\*** Associate of Arts in Criminology  
**Select Category \*** Major Degree Type AA  
 Select Action **Revision**

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***  
 See current catalog for format within the respective college (upload a doc/pdf file)

[CRIMINOLOGY Update 2016.docx](#)

☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.

**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

To articulate AA in Criminology degree at UNM Valencia with the BA in Criminology at Main Campus

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)

[Justification.docx](#)

☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.

**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)

**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)

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- A. **Justification for the Change in the Program:** Importantly, UNM Valencia is articulating requirements in the Associate of Arts in Criminology with Main Campus requirements in the BA in Criminology. Many of our students major in this degree program. They either use it as a terminal Associate degree program or a transfer degree program in Criminology at UNM Main Campus
- B.
- C. **Impact on Long-range Planning:** The long range plan in the Division of CHES is to continue to update programs to articulate requirements with UNM Main Campus requirements, a student-centered approach to education which encourages retention and completion of the degree program
- D. **Detailed Budget Analysis:** Since we already offer this degree program and all courses added, there are no new expenses.
- E. **Faculty Workload Implications:** There is no impact on faculty as all courses Criminology are already being taught. We use UNM Main Campus learning outcomes and course descriptions already, so no new curriculum development is need.

# Associate of Arts in Criminology Program Description

The Sociology Department at the University of New Mexico offers a specialized program in Criminology, designed to give students a comprehensive introduction to the field. Courses focus on the characteristics, nature, causes, and consequences of crime and giving particular attention to the criminal justice system. Basic instruction includes completing core requirements and courses in sociological theory.

## Career and Educational Advancement Opportunities

The Associate of Arts in Criminology is a transfer program designed to prepare students for completing a BA in Criminology. Employment opportunities include careers in criminology, including law enforcement, corrections, crime prevention, law, social work, or counseling. Students must earn a grade of “C” or better in all pre-admission course work; a grade-point average of 2.25 is required for regular admittance to a criminology major.

## Program Requirements

Total credit hours required: 61 (see checklist for specific requirements). Please refer to The University of New Mexico Core Curriculum for a list of allowable core curriculum elective courses.

## Program Learning Goals

This program provides students with quality instruction to facilitate mastery of the knowledge, skills, and behaviors necessary to continue their studies in a Bachelor’s degree in Criminology. Course syllabi describe the learning objectives that contribute to the program learning goals and explain how students’ learning is evaluated.

Upon successful completion of the required courses for the associate arts in criminology, our students will be able to:

1. Demonstrate a knowledge of effective communication in writing, speaking, and/or language.
2. Demonstrate an ability to apply concepts in history, political science, sociology, psychology, and/or anthropology.
3. Demonstrate an ability to apply concepts in fine arts, religion, philosophy, and or literature.
4. Complete the first two years of a Bachelor of Arts Criminology.

## Learning Objectives

1. Demonstrate knowledge of effective communication in writing, speaking, philosophy, and/or language.
2. Demonstrate ability to apply concepts in history, economics, political science, sociology, psychology, and/or anthropology.
3. Demonstrate ability in mathematics and physical/natural sciences.
4. Complete the first two years of a BA in Criminology.

## Contact and Advising Information

Information about the Associate of arts in Criminology Degree Program is available from Advisement Center at 505.925.8560 or [vcadvise@unm.edu](mailto:vcadvise@unm.edu), or the Communication, Humanities, English & Social Sciences Chair, Dr. Danizete Martinez, at 505.925.8728 or [danizete@unm.edu](mailto:danizete@unm.edu).

## Course Prerequisites

Students must meet prerequisites by achievement of minimum placement scores on the COMPASS or ACT or through completion of course work.

**Course:** ENGL 100 & UNIV 101, ENGL 111/ENGL 112 or place into ENGL 110 or ENGL 113;

**Credit hours:** 4&3; 3&3; **COMPASS/ACT Minimum Scores:** 75/19

**Course:** MATH 101/102 or MATH 120 – or place into MATH 121; **Credit hours:** 3 & 1; **COMPASS/ACT Minimum Scores:** 55/22



# Associate of Arts in Criminology Degree Requirements

The following are the course requirements for completion of an Associate of Arts in Criminology degree. Students should see an advisor to customize their educational plans.

## Area Semester Grade Credits

### Writing and Speaking: (9-10 credits)

ENGL 110 or 112 or 113 \_\_\_\_\_ 3 or 3 or 4

ENGL 120 \_\_\_\_\_ 3

\_\_\_\_\_ 3

Select an additional course from CJ 130, PHIL 156, ENGL 219, or ENGL 220.

### Math: (3 credits)

STAT 145 \_\_\_\_\_ 3

### Physical and Natural Sciences: (7-8 credits)

\_\_\_\_\_ 4

\_\_\_\_\_ 3 or 4

Select two courses from the UNM Core Curriculum, one of which must include a lab.

### Social and Behavioral Sciences: (6 credits)

\_\_\_\_\_ 3

\_\_\_\_\_ 3

Select two courses from the UNM Core Curriculum in Social and Behavioral Sciences (except those required in Criminology requirements) such as ANTH, ECON, POLS, PSY or SOC.

### Humanities: (6 credits)

\_\_\_\_\_ 3

\_\_\_\_\_ 3

Select two courses from the UNM Core Curriculum in Humanities.

### Fine Arts: (3 credits)

\_\_\_\_\_ 3

Select one course from the UNM Core Curriculum in Fine Arts.

### Foreign Language: (3 credits)

\_\_\_\_\_

Select one course from the UNM Core Curriculum in Foreign Language. Suggested: SPAN 101 OR 102

### Criminology Core Requirements: (12 credits)

SOC 101 \_\_\_\_\_ 3

SOC 205 \_\_\_\_\_ 3

SOC 213 \_\_\_\_\_ 3

SOC 211 OR SOC 216 \_\_\_\_\_ 3

### Elective Requirements (12 credits)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(To articulate with the University of New Mexico, students should choose a Minor. Therefore, 8 of the 12 hours should be within the same academic field. Students should consult with advisor about choosing a minor that best fits their major.

**Total Required: (61 credits)** Students transferring to four-year institutions other than the University of New Mexico should be aware that core curriculum requirements may not necessarily met upon the completion of this degree.

**Current user: ctorres / Comments (11) / Form Transaction Log**  
**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1604

Fields marked with \* are required

Name of Initiator: Huaqing Qi Email: [hqi@unm.edu](mailto:hqi@unm.edu) Phone Number: 505 277-4452 Date: 02-18-2015Associated Forms exist?\*  Initiator's Title\* Associate Professor: Educational Specialties Ed Sp

Faculty Contact\* Huaqing Qi

Administrative Contact\* Gloria Carol

Department\* Educational Specialties

Admin Email\* [gcarol@unm.edu](mailto:gcarol@unm.edu)

Branch

Admin Phone\* 2778950

Proposed effective term

Semester  Year **Course Information**Select Appropriate Program\* 

Name of New or Existing Program\* GCERT Instruction for Students with Intensive Social, Language, and Behavioral Needs

Select Category\*  Degree Type GRSelect Action **Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[1Final ASD Proposed title change.docx](#)[Final ASD Proposed title change .docx](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

The reasons for the title change of the graduate certificate are to (a) reflect more explicitly the content of the graduate certificate, and (b) be consistent with the Fifth Edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), which was released in May 2013. In addition, students who graduate from this certificate program will be able to demonstrate their expertise in autism spectrum disorder to potential employers.

[The reasons for the title change of the graduate certificate are to.docx](#)**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[Form C #1604.COE flow 001.pdf](#)[final\\_budget.docx](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[Approve and Sign Off](#)[Send back to Initiator \(Huaqing Qi\)  
Comment on this Form](#)[Committee Review](#)

Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001

# CURRICULUM FORM CHECKLIST

Complete this form and submit with curricular forms A, B, C, D

Form C # 1604

## Program Level

☒ Individual faculty member initiates form

☒ Form provided to all program faculty (including affiliated faculty in other departments)

☒ Minimum one week for program faculty to review form and syllabus

☒ Program faculty vote on form at meeting or electronically

☒ If approved, documentation of program vote and form sent to Department Chair

Program Coordinator Initials Den  
Date 5/13/15

Note: If not approved, send form back to initiating faculty member with comments for revision

## Department Level

☒ Chair reviews for accuracy and completeness

☒ Form provided to all departmental faculty for minimum of one week

☒ Department votes on forms at meeting or electronically

☒ If approved, documentation of department vote and form sent to Department Chair

☒ Chair sends an e-mail indicating faculty vote and departmental approval to the Scheduling Coordinator

Department Chair Initials RL  
Date 5/13/15

Note: If not approved, send form back to initiating faculty member with comments for revision

Which form should I use?  
(Manual is attached)

### Form A

Minor change in existing, active undergraduate and graduate courses (e.g. name or course number)

### Form B

New course request for undergraduate and graduate courses

### Form C

Substantial changes or revisions to graduate and undergraduate courses, degrees, majors, minors, concentrations, emphases, and transcribed certificates

### Form D

New graduate degrees and new transcribed graduate certificates

| Current (As Published)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Proposed (As Changed)                                                  |    |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |  |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |
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| <p><b>Graduate Certificate in Instruction for Students with Intensive Social, Language, and Behavioral Needs</b></p> <p>The Graduate Certificate in Instruction for Students with Intensive Social, Language, and Behavioral Needs is designed for in-service general education and special education teachers, related service professionals (e.g., speech/language pathologist), and parents wishing to acquire advanced instructional skills and knowledge in the area of communication, social, and behavioral interventions for students with significant support needs. The Graduate Certificate program is open to students pursuing a graduate degree in Special Education and in other related fields (e.g., Speech Language Pathology, Family Studies, Early Childhood Education) at the University of New Mexico, and to individuals who minimally hold a bachelor’s degree and are interested in having specialized training in working with students with social, language, and behavioral needs (e.g., students with autism spectrum disorders [ASD]). To obtain the certificate, students must successfully complete a minimum of 18 credit hours and an approved final capstone project.</p> <table><tr><th colspan="2">Required Course Work</th><th>18</th></tr><tr><td>SPCD 519</td><td>Applied Behavioral Analysis in the Classroom</td><td>3</td></tr><tr><td>SPCD 552</td><td>Teaching Students with Intellectual Disability and Severe Disabilities</td><td>3</td></tr><tr><td>SPCD 582</td><td>Teaching Students with Intensive Communication Needs</td><td>3</td></tr><tr><td>SPCD 583</td><td>Introduction to Autism Spectrum Disorders</td><td>3</td></tr><tr><td>SPCD 584</td><td>Research and Teaching/Intervention in Autism Spectrum Disorders</td><td>3</td></tr><tr><td>SPCD 595</td><td>Advanced Field Experience</td><td>3</td></tr></table> | Required Course Work                                                   |    | 18 | SPCD 519 | Applied Behavioral Analysis in the Classroom | 3 | SPCD 552 | Teaching Students with Intellectual Disability and Severe Disabilities | 3 | SPCD 582 | Teaching Students with Intensive Communication Needs | 3 | SPCD 583 | Introduction to Autism Spectrum Disorders | 3 | SPCD 584 | Research and Teaching/Intervention in Autism Spectrum Disorders | 3 | SPCD 595 | Advanced Field Experience | 3 | <p><b>Graduate Certificate in Autism Spectrum Disorder</b></p> <p>The Graduate Certificate in Autism Spectrum Disorder is designed for in-service general education and special education teachers, related service professionals (e.g., speech/language pathologist), and parents wishing to acquire advanced instructional skills and knowledge in the area of communication, social, and behavioral interventions for students with significant support needs. The Graduate Certificate program is open to students pursuing a graduate degree in Special Education and in other related fields (e.g., Speech Language Pathology, Family Studies, Early Childhood Education) at the University of New Mexico, and to individuals who minimally hold a bachelor’s degree and are interested in having specialized training in working with students with social, language, and behavioral needs (e.g., students with autism spectrum disorders [ASD]). To obtain the certificate, students must successfully complete a minimum of 18 credit hours and an approved final capstone project.</p> <table><tr><th colspan="2">Required Course Work</th><th>18</th></tr><tr><td>SPCD 519</td><td>Applied Behavioral Analysis in the Classroom</td><td>3</td></tr><tr><td>SPCD 552</td><td>Teaching Students with Intellectual Disability and Severe Disabilities</td><td>3</td></tr><tr><td>SPCD 582</td><td>Teaching Students with Intensive Communication Needs</td><td>3</td></tr><tr><td>SPCD 583</td><td>Introduction to Autism Spectrum Disorders</td><td>3</td></tr><tr><td>SPCD 584</td><td>Research and Teaching/Intervention in Autism Spectrum Disorders</td><td>3</td></tr><tr><td>SPCD 595</td><td>Advanced Field Experience</td><td>3</td></tr></table> | Required Course Work |  | 18 | SPCD 519 | Applied Behavioral Analysis in the Classroom | 3 | SPCD 552 | Teaching Students with Intellectual Disability and Severe Disabilities | 3 | SPCD 582 | Teaching Students with Intensive Communication Needs | 3 | SPCD 583 | Introduction to Autism Spectrum Disorders | 3 | SPCD 584 | Research and Teaching/Intervention in Autism Spectrum Disorders | 3 | SPCD 595 | Advanced Field Experience | 3 |
| Required Course Work                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                        | 18 |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |  |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |
| SPCD 519                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Applied Behavioral Analysis in the Classroom                           | 3  |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |  |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |
| SPCD 552                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Teaching Students with Intellectual Disability and Severe Disabilities | 3  |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |  |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |
| SPCD 582                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Teaching Students with Intensive Communication Needs                   | 3  |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |  |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |
| SPCD 583                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Introduction to Autism Spectrum Disorders                              | 3  |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |  |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |
| SPCD 584                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Research and Teaching/Intervention in Autism Spectrum Disorders        | 3  |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |  |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |
| SPCD 595                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Advanced Field Experience                                              | 3  |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |  |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |
| Required Course Work                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                        | 18 |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |  |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |
| SPCD 519                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Applied Behavioral Analysis in the Classroom                           | 3  |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |  |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |
| SPCD 552                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Teaching Students with Intellectual Disability and Severe Disabilities | 3  |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |  |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |
| SPCD 582                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Teaching Students with Intensive Communication Needs                   | 3  |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |  |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |
| SPCD 583                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Introduction to Autism Spectrum Disorders                              | 3  |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |  |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |
| SPCD 584                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Research and Teaching/Intervention in Autism Spectrum Disorders        | 3  |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |  |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |
| SPCD 595                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Advanced Field Experience                                              | 3  |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |  |    |          |                                              |   |          |                                                                        |   |          |                                                      |   |          |                                           |   |          |                                                                 |   |          |                           |   |



Current user: ctorres / **Comments (11)** / Form Transaction Log

## Curriculum Workflow



[Link to Curricula Forms Process Manual](#)

DEGREE/PROGRAM CHANGE  
FORM C  
Form Number: C1627



Fields marked with \* are required

Name of Initiator: Christina Marie Perry Email: [cperry2@unm.edu](mailto:cperry2@unm.edu) Phone Number: 505 277-5151 Date: 03-02-2015

Associated Forms exist?\*  Initiator's Title\* Associate Professor: Health Exercise & Sports Scie

Faculty Contact\* Christina Perry

Administrative Contact\* Todd Seidler

Department\* HESS

Admin Email\* [tseidler@unm.edu](mailto:tseidler@unm.edu)

Branch

Admin Phone\* 505-277-5151

Proposed effective term

Semester  Year

### Course Information

Select Appropriate Program\*

Name of New or Existing Program\* Community Health Education Minor (NEW)

Select Category\*  Degree Type UG

Select Action

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[revproposed catalog CHED Minor.docx](#)

☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.

**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

The proposed 18-credit hour community health education minor provides opportunities for students of any major to gain expertise in a content area of community health education and to complement a related major area of study. Over the past five years, students from across campus, majoring in psychology, exercise science, nursing and nutrition, have inquired about a minor in community health education. The faculty believes that offering a minor will provide an area of study that not only complements an array of majors across campus, but provides a field of expertise not obtained elsewhere at UNM. In addition, this minor may also serve as a focus area for students enrolled in the Liberal Arts and Integrative Studies degree programs.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)

[Justification and budget.docx](#)  
[checklist HED minor.pdf](#)

☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.

**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)

**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)

[Approve and Sign Off](#)

[Send back to Initiator \(Christina Marie Perry\)  
Comment on this Form](#)

[Committee Review](#)



Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001

# Proposed Catalog

## Community Health Education Minor

### Catalog description

An 18-credit hour non-teaching undergraduate minor in Community Health Education is offered to students majoring in all disciplines except Health Education. Students pursuing this minor should plan to enroll in the required courses during the fall and spring semesters since undergraduate courses in health education are seldom offered during the summer sessions. Students should contact an advisor at the Center for Student Success in Travelstead Hall for more information.

### Community Health Education Minor – 18 credit hours required

#### A. Core Requirements – 9 credit hours

- HED 260-3cr Foundations of Health Promotion
- HED 362-3cr Introduction to Health Behavior
- HED 451-3cr Prevention Strategies in Community Health

#### B. Elective Courses (select) – 9 credit hours

Students are encouraged to select courses that complement their major field of study and that support their individual interests and career goals. At least 3 hours of the elective courses must be 300 level or above.

##### -One credit hour course list

- HED 209 Education for HIV/Aids Prevention
- HED 247 Consumer Health
- HED 306 Conflict Mediation
- HED 310 Injury Prevention
- HED 321 Violence Prevention
- HED 445 Strategies for Prevention of Substance Abuse

##### -Three credit hour course list

- HED 171 Personal Health Management
- HED 212 Fundamentals of Human Sexuality
- HED 333 Emotional Health and Interpersonal Relationships
- HED 371 Introduction to Public and Community Health
- HED 383 Principles of Epidemiology
- HED 473 Health Issues of Death & Dying
- HED 487/587 Physical Activity and Aging
- HED 477/577 Stress Management
- HED 482 Social Determinants and Multicultural Health

The Community Health Education minor will complement majors of study in, but not limited to, nutrition, exercise science, and other health related fields.

### **Justification, budget implications and faculty workloads**

The proposed 18-credit hour community health education minor provides opportunities for students of any major to gain expertise in a content area of community health education and to complement a related major area of study. Over the past five years, students from across campus, majoring in psychology, exercise science, nursing and nutrition, have inquired about a minor in community health education. The faculty believes that offering a minor will provide an area of study that not only complements an array of majors across campus, but provides a field of expertise not obtained elsewhere at UNM. In addition, this minor may also serve as a focus area for students enrolled in the Liberal Arts and Integrative Studies degree programs.

The proposed 18-credit hour minor does not duplicate any existing program minor at UNM and *utilizes standing courses in the current health education curriculum*. By instituting this minor there will be no budgetary or curricular changes required. The required courses in the community health education minor are currently taught by four core HED faculty (3 tenured), one full-time lecturer III instructor, three part-time instructors and 2 teaching assistants.

**Current user: ctorres / Comments (10) / Form Transaction Log**  
**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1644

Fields marked with \* are required

Name of Initiator: Tina Armijo Email: [tmarmijo@unm.edu](mailto:tmarmijo@unm.edu) Phone Number: 505 277-1890 Date: 05-29-2015Associated Forms exist?\*  Initiator's Title\* Unit Administrator: ASM Dept of Accounting

Faculty Contact\* Leslie Oakes

Administrative Contact\* Tina Armijo

Department\* Anderson School of Management

Admin Email\* [tmarmijo@unm.edu](mailto:tmarmijo@unm.edu)

Branch Main

Admin Phone\* 277-1890

Proposed effective term

Semester  Year **Course Information**Select Appropriate Program\* 

Name of New or Existing Program\* Master of Accounting- Professional Accounting Concentration

Select Category \*  Degree TypeSelect Action **Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[Form C - MACCT Professional 2015\\_CatalogDesc.docx](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

Students are currently only able to take the two introductory courses (pre-requisites) as a non-degree student. Or they may take them at another institution with approval from the MACCT advisor. If they take them at another institution in New Mexico they may follow the New Mexico articulation agreement for course selection. This puts a burden on international students and students on financial aid because they are not admitted to a program as non-degree and so are not taking them at UNM or not entering the program. This change alleviates that problem.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[20150604110315324.pdf](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[Approve and Sign Off](#)[Send back to Initiator \(Tina Armijo\)](#)  
[Comment on this Form](#)[Committee Review](#)

Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001



## Form C1644 Master of Accounting Professional Concentration

| <i><b>Old Catalog Description</b></i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <i><b>Proposed Catalog Description</b></i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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| <p>The <b>Professional Concentration</b> is designed for individuals who have a non-accounting undergraduate degree and wish to enter public accounting as a certified professional. The Professional Concentration requires two prerequisites consisting of an introductory financial accounting course, and an introductory managerial accounting course prior to admission in the program and consists of 27 credit hours of specified graduate accounting coursework, plus 6 credit hours of specified graduate non-accounting coursework.</p> <p><b>Course requirements:</b> Students may complete the two prerequisites by taking MGMT 502 and MGMT 503. Students should visit with the accounting faculty advisor about other coursework that will satisfy the prerequisite requirements. Students must complete the following courses: MGMT 540, 541, 542, 543, 544, 546, 549, 550, 559, 640 or 643<sup>1</sup>, and 626<sup>2</sup></p> <p><sup>1</sup>Students must complete either MGMT 640 or 643.</p> <p><sup>2</sup>Students must visit with the accounting faculty advisor and request written approval for alternate graduate coursework that will satisfy the MGMT 626 requirement. Students who have completed MGMT 326 at Anderson at the undergraduate level should not take MGMT 626 and must visit with the accounting faculty advisor about which graduate course to take instead of MGMT 626.</p> | <p>The <b>Professional Concentration</b> is designed for individuals who have a non-accounting undergraduate degree and wish to enter public accounting as a certified professional. The Professional Concentration requires the successful completion of two introductory courses consisting of a preliminary financial accounting course and a preliminary managerial accounting course taken prior to or after admission to the program and consists of 27 credit hours of specified graduate accounting coursework, plus 6 credit hours of specified graduate non-accounting coursework.</p> <p><b>Course requirements:</b> Students may complete the two introductory courses by taking MGMT 502 and MGMT 503 at the Anderson School. Students not completing the introductory courses at Anderson should consult with the accounting faculty advisor about other course work that will fulfill the introductory course requirements prior to taking any courses. Students must complete the following courses: MGMT 540, 541, 542, 543, 544, 546, 549, 550 or 554<sup>1</sup>, 559, 640 or 643<sup>2</sup>, and 626<sup>3</sup>.</p> <p><sup>1</sup>Students must complete either MGMT 550 or 554.</p> <p><sup>2</sup>Students must complete either MGMT 640 or 643.</p> <p><sup>3</sup>Students must visit with the accounting faculty advisor and request written approval for alternate graduate coursework that may satisfy the MGMT 626 requirement. Students who have completed MGMT 326 at Anderson at the undergraduate level should not take MGMT 626 and must visit with the accounting faculty advisor about which graduate course to take instead of MGMT 626.</p> |

## Form C1644 Master of Accounting Professional Concentration

|                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>The GMAT/GRE is waived for students who have a BBA from an AACSB accredited school with a minimum of 3.25 GPA in all upper division coursework. Students granted the waiver must also attend the Anderson School Writing workshop. Students must fulfill all other admission requirements.]</p> | <p>The GMAT/GRE is waived for students who have a B.B.A. from an AACSB-accredited school with a minimum of 3.25 GPA in all upper-division coursework. Students granted the waiver must also attend the Anderson School Writing workshop. Students must fulfill all other admission requirements.</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## FORM C Degree/Program Change

Anderson School of Management internal approval form

Name of Initiator: Tina Armijo Email: tmarmijo@unm.edu Date: 11/13/2014

Phone: 277-1890 Initiator's Rank/Title: Unit Administrator

Associated Forms Exist: Yes **No**

Faculty Contact: Leslie Oakes Administrative Contact: Tina Armijo

Department: Department of Accounting

Admin Email: tmarmijo@unm.edu Admin Phone: 277-1890

Branch: Main

Proposed effective term Semester: Fall Year: 2015

### Course Information

Circle Program: UG **GR**

Name of new or existing program: Master of Accounting, Professional Concentration

Select Category: Degree Major Minor **Concentration**

Certificate Emphasis Department Subject code

UG Core Course

Degree type: Masters

Select Action: New **Revision** Deletion Name Change

**Exact Title and Requirements as they should appear in the catalog:**

This concentration is designed for individuals who have a non-accounting undergraduate degree and wish to enter public accounting as a certified professional. The Professional Concentration requires the successful completion of two introductory courses consisting of an introductory financial accounting course and an introductory managerial accounting course with a B or better and 27 credit hours of specified graduate accounting coursework, plus 6 credit hours of specified graduate non-accounting coursework.

Course requirements: Students may complete the two introductory courses by taking MGMT 502 and MGMT 503. Students not completing the introductory courses at Anderson should consult with the accounting faculty advisor about other course work that will fulfill the introductory course requirements prior to taking any courses. The six hours of introductory course work are in addition to 33 hours of

Updated 7/2014, DFM

course work required to complete the program. Students must complete the following courses: MGMT 540, 541, 542, 543, 544, 546, 549, 550, 559, 640 or 643 (2), and 626 (3).

(1) Students must complete either 544 or 550

(2) Students must complete either MGMT 640 or 643.

(3) Students must visit with the accounting faculty advisor and request written approval for alternate graduate coursework that may satisfy the MGMT 626 requirement. Students who have completed MGMT 326 at Anderson at the undergraduate level should not take MGMT 626 and must visit with the accounting faculty advisor about which graduate course to take instead of MGMT 626.

The GMAT/GRE is waived for students who have a B.B.A. from an AACSB-accredited school with a minimum of 3.25 GPA in all upper-division coursework. Students granted the waiver must also attend the Anderson School Writing workshop. Students must fulfill all other admission requirements.

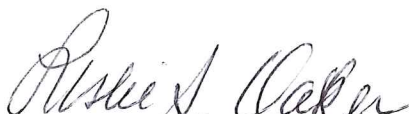
Does this change affect other departmental program/branch campuses? Yes \_\_\_\_ No X

Reason(s) for request:

Students are currently only able to take the two introductory courses (pre-requisites) as a non-degree student. Or they may take them at another institution with approval from the MACCT advisor. If they take them at another institution in New Mexico they may follow the New Mexico articulation agreement for course selection. This puts a burden on international students and students on financial aid because they are not admitted to a program as non-degree and so are not taking them at UNM or not entering the program. This change alleviates that problem.

There will not be additional faculty workloads as the courses are already being offered with room for additional students if needed.

Statements that include justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications:

 11-6-14  
Approved Dept. Chair Date

 11/25/14  
Approved Curriculum Comm Chair Date

 11/25/14  
Approved Associate Dean Date

 5-29-15  
Submitted by Date

Current user: ctorres / **Comments (6)** / Form Transaction Log**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)
**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1650


Fields marked with \* are required

Name of Initiator: Ann Gibson Email: [alg@unm.edu](mailto:alg@unm.edu) Phone Number: 505 277-8173 Date: 07-21-2015

**Associated Forms exist?\*** Yes **Initiator's Title\*** Associate Professor: Health Exercise & Sports Scie

**Faculty Contact\*** Ann Gibson **Administrative Contact\*** Todd Seidler

**Department\*** HESS **Admin Email\*** [tseidler@unm.edu](mailto:tseidler@unm.edu)

**Branch** Main **Admin Phone\*** 277-2783

**Proposed effective term**Semester **Fall** Year **2016****Course Information**

**Select Appropriate Program\*** Graduate Degree Program

**Name of New or Existing Program\*** PhD in PESES - Exercise Science

**Select Category \*** Concentration Degree Type PhD

Select Action **Revision**

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***  
See current catalog for format within the respective college (upload a doc/pdf file)

[Current and proposed POS - PhD in PESES.pdf](#)
☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.
**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

The reasons for this requested curricular change are several: 1. Reduce number of credit hrs from 73 + Dissertation to 72 + Dissertation 2. Switch some of the formerly required and elective courses to increase likelihood of courses making 3. Rename PEP 501 from Intermediate Exercise Physiology to Advanced Exercise Physiology; this will become a graduate only course as it will be dropped from UG curriculum 4. Sunset PEP 536 Biochemistry Lab 5. Replace PEP 536 with new course PEP 628 Cellular & Molecular Mechanisms as much of the research in our field is going molecular 6. Add new course PEP 544 Physiology of Resistance Training to curriculum given new programmatic capabilities to support pursuit of strength and conditioning careers 7. Identify appropriate supporting area classes (24 cr hrs total) and denote that no more than 12 credit hours from Exercise Science electives will count toward the 72 credit hour total 8. Note proposed change to PEP Designs for Fitness to a 4 cr class from a 3 cr class given the enormous amount of theoretical and practical skill now required for fitness industry careers and certifications In a nutshell, our Ex Sci grad curriculum has not changed in at least the past 14 years, but the field has changed substantially. We believe our proposed curricular modifications reflect these changes and student feedback gathered over the past 4 years. Many of our Exercise Science undergrads apply for the Generalized MSc in Physical Education. Until the proposed changes are made, there are few, if any, Exercise Science related 500-level courses they can take as they already took the cross-listed undergraduate course. Additionally, we are limited by lab space and the need to comply with Fire Marshall caps; given the fact that Designs is a cross-listed course (PEP 470/502) and required by Exercise Science and Athletic Training, enrollment can easily surpass the Fire Code cap. Therefore, we need to officially create lab sections in order to accommodate everyone and make the practical skill development meaningful.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)

[Justification of Ex Sci changes.pdf](#)
☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.

**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)

**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)

[Approve and Sign Off](#)[Send back to Initiator \(Ann Gibson\)](#)[Committee Review](#)



Proposed changes to Ex Sci PhD Curriculum as approved in HESS Faculty meeting August 2013

1. Reduce number of credit hrs from 73 + Dissertation to 72 + Dissertation
2. Switch some of the formerly required and elective courses to increase likelihood of courses “making”
3. Rename PE-P 501 from “Intermediate Exercise Physiology” to “Advanced Exercise Physiology”; this will become a graduate only course as it will be dropped from UG curriculum
4. Sunset PE-P 536 Biochemistry Lab
5. Replace PE-P 536 with new course PE-P 628 Cellular & Molecular Mechanisms as much of the research in our field is “going molecular”
6. Add new course PE-P 544 Physiology of Resistance Training to curriculum given new programmatic capabilities to support pursuit of strength and conditioning careers
7. Identify appropriate supporting area classes (24 cr hrs total) and denote that no more than 12 credit hours from Exercise Science electives will count toward the 72 credit hour total
8. Note proposed change to PE-P Designs for Fitness to a 4 cr class from a 3 cr class given the enormous amount of theoretical and practical skill now required for fitness industry careers and certifications

In a nutshell, our Ex Sci grad curriculum has not changed in at least the past 14 years, but the field has changed substantially. We believe our proposed curricular modifications reflect these changes and student feedback gathered over the past 4 years.

Many of our Exercise Science undergrads apply for the Generalized MSc in Physical Education. Until the proposed changes are made, there are few, if any, Exercise Science related 500-level courses they can take as they already took the cross-listed undergraduate course.

Additionally, we are limited by lab space and the need to comply with Fire Marshall caps; given the fact that Designs is a cross-listed course (PE-P 470/502) and required by Exercise Science and Athletic Training, enrollment can easily surpass the Fire Code cap. Therefore, we need to officially create lab sections in order to accommodate everyone and make the practical skill development meaningful.



## PhD in PESES: Concentration in Exercise Science; POS Worksheet

### Current (73 cr hr + Dissertation)

| <b>Required Core Courses (13 Cr Hrs)</b>            | <b>cr hrs</b> |
|-----------------------------------------------------|---------------|
| PE-P 500 Exercise Science Seminar                   | 1             |
| PE-P 505 Found for a Professional Philosophy        | 3             |
| OR                                                  |               |
| PEP 541 Ethics Sports & Fitness                     |               |
| PEP 507 Research Design in HPER <b>OR</b>           |               |
| EDPY 505 Conducting Quantitative Educational Rese   | 3             |
| PEP 604 Dissertation Seminar                        | 3             |
| PEP 625 Writing for Professional Publication        | 3             |
| <b>Exercise Science Courses (36 Cr Hrs)</b>         | 3             |
| PEP 501 Intermediate Exercise Physiology            | 3             |
| PEP 502 Designs for Fitness                         | 3             |
| PEP 503 EKG Interpretation                          | 3             |
| PEP 508 Exercise Testing and Interpretation         | 3             |
| PEP 530 Laboratory Procedures and Instrumentation i | 3             |
| PEP 535 Exercise Biochemistry                       | 3             |
| PEP 627 Seminar in Applied Physiology               | 3             |
| PEP 691 Problems                                    | 3             |
| PEP 696 Internship                                  | 6             |
| Exercise Science elective **                        | 3             |
| Exercise Science elective **                        | 3             |
| <b>Biomedical/Technologies (13 Cr Hrs)</b>          |               |
| BIOMED 510 Physiology (required)                    | 3             |
| OLIT Elective **                                    | 3             |
| Elective **                                         | 3             |
| Elective **                                         | 3             |
| <b>Research/Statistics (12 Cr Hrs)</b>              |               |
| Elective in Research/Statistics **                  |               |
| EDPY 603 Applied Statistical Design and Analysis*   | 3             |
| EDPY 604 Multiple Regression Techniques as Applie   | 3             |
| EDPY 606 Multivariate Analysis                      | 3             |

### Proposed Minimum of 72 credits + Dissertation

| <b>Required Core Courses (12 Cr Hrs)</b>            | <b>cr hrs</b> |
|-----------------------------------------------------|---------------|
| EDPY 630 College Teaching Seminar                   | 3             |
| PE-P 541 Ethics Sports & Fitness                    | 3             |
| PE-P 507 Research Design in HPER                    | 3             |
| OR                                                  |               |
| EDPY 505 Conducting Quantitative Educational Rese   |               |
| PEP 604 Dissertation Seminar                        | 3             |
| <b>Exercise Science Courses (36 Cr Hrs)</b>         |               |
| PEP 501 Advanced Exercise Physiology                | 3             |
| PEP 508 Exercise Testing and Interpretation         | 3             |
| PEP 527 Metabolic Considerations of Exercise Scienc | 3             |
| PEP 528 Neuromuscular Performance                   | 3             |
| PEP 530 Laboratory Procedures and Instrumentation i | 3             |
| PEP 532 Body Composition                            | 3             |
| PEP 544 Physiology of Resistance Training           | 3             |
| PEP 562 Exercise in Extreme Environments            | 3             |
| PEP 625 Writing for Professional Publication        | 3             |
| PEP 627 Seminar in Applied Physiology               | 3             |
| PEP 628 Cellular & Molecular Mechanisms             | 3             |
| Exercise Science elective **                        | 3             |
| <b>Supporting Areas (24 Cr Hrs)**</b>               |               |
| <i>Approved Exercise Science Electives</i>          |               |
| <i>Note: maximum 12 PE-P cr hrs will be applied</i> |               |
| PEP 502 Designs for Fitness                         | 4             |
| PEP 503 EKG Interpretation                          | 3             |
| PEP 579 Sports Physiology                           | 3             |
| PEP 691 Problems                                    | 3             |
| PEP 696 Internship                                  | 3-6           |
| <i>Research/Statistics (* = required course)</i>    |               |
| EDPY 511 Intro Educational Statistics               | 3             |
| EDPY 603 Applied Statistical Design and Analysis*   | 3             |
| EDPY 604 Multiple Regression Techniques as Applie   | 3             |
| Research/Statistics Elective **                     | 3             |
| <i>Biomedical/Technologies (* = required)</i>       |               |
| BIOMED 510 Physiology                               | 3             |
| <i>Electives **</i>                                 |               |
| NUTR/BIOL/BIOM/CHEM/ECE/MSET                        | 3-15          |

\*\* Advisor approval required; POS committee approval required for substitutions



**Current user: ctorres / Comments (7) / Form Transaction Log**  
**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1690

Fields marked with \* are required

Name of Initiator: Brian Vineyard Email: [vineyard@unm.edu](mailto:vineyard@unm.edu) Phone Number: 505 277-2140 Date: 10-05-2015

Associated Forms exist?\* Yes Initiator's Title\* Sr Academic Advisor: Arts Sciences Advisement

Faculty Contact\* Laura Crossey

Administrative Contact\* Brian Vineyard

Department\* EPS

Admin Email\* [vineyard@unm.edu](mailto:vineyard@unm.edu)

Branch

Admin Phone\* 639-2096

Proposed effective term

Semester Fall Year 2016

**Course Information**

Select Appropriate Program\* Undergraduate Degree Program

Name of New or Existing Program\* Bachelor of Science in Environmental Science

Select Category \* Major Degree Type Undergraduate

Select Action Revision

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[ENVS BS 2016-17 - Major.pdf](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.

Reason(s) for Request\* (enter text below or upload a doc/pdf file)

No

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[2016-17 Environmental Science Curriculum Redesign proposal.pdf](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[Approve and Sign Off](#)[Send back to Initiator \(Brian Vineyard\)  
Comment on this Form](#)[Committee Review](#)

Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001

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## **Bachelor of Science in Environmental Science**

### **Required Courses**

ENVS 101, 102L (or EPS 101, 105L), 315, 320L, 321L, 322L, 323L, 324, 430L, EPS 401 & 490 and 12 additional credit hours in Earth and Planetary Sciences (excluding 493 and 495) or other approved courses (of which no more than 4 credit hours may be below 300).

**(Total = 44 credit hours)**

### **Supporting Math/Science Required Courses**

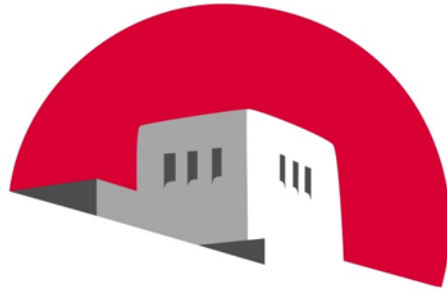
CHEM 121/123L, 122/124L; MATH 162, 163; PHYC 160, 161; BIOL 123/124L (or higher), CS 151L (or 152L), and 3 additional credit hours from: Chemistry (above 124L), Mathematics (above 163), Physics (above 161), Biology (above 124L), Astronomy (270 or above) or, with permission, from selected Geography or Engineering courses. An additional advanced math class selected from: 264, 311, 314, or 316 is strongly encouraged.

**(Total = 32 credit hours)**

ENGL 219 or 220 or 290 is required.

No minor study is required for students completing the B.S. program, although an optional minor or second major may be selected.

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# THE UNIVERSITY *of* NEW MEXICO

COLLEGE *of*  
ARTS & SCIENCES

*Department of Earth & Planetary Sciences*



# **Environmental Science Curriculum Redesign**

**proposed for 2016-17 academic year**

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- 3. Introduction**
- 5. Faculty Workload and Budgetary Impacts**
- 6. Proposed new ENVS Major and Minor requirements**
- 7. B.S. in Environmental Science: College Algebra Ready - Four Year Roadmap**
- 8. B.S. in Environmental Science: Learning Outcomes Matrix**
- 9. Proposed Syllabi**

|                  |                                                                  |
|------------------|------------------------------------------------------------------|
| <b>ENVS 315</b>  | <b>Statistics and Data Analysis (Replaces EPS 428 &amp; 433)</b> |
| <b>ENVS 320L</b> | <b>Environmental Systems (Replaces ENVS 330)</b>                 |
| <b>ENVS 321L</b> | <b>Earth Materials and Critical Zone Geology</b>                 |
| <b>ENVS 322L</b> | <b>Life and the Earth System</b>                                 |
| <b>ENVS 323L</b> | <b>Water in the Earth System</b>                                 |
| <b>ENVS 324</b>  | <b>Earth's Climatic Environment (Replaces EPS 436)</b>           |
| <b>ENVS 430L</b> | <b>Advanced Environmental Science (lab officially added)</b>     |

Assembled by:

Joseph Galewsky  
Gary Weissmann  
David Gutzler  
Brian Vineyard

February 2015 to September 2015

## INTRODUCTION

The Earth & Planetary Sciences (EPS) Department proposes a major revision to its B.S. degree program in Environmental Science (ENVS), with corresponding revisions to the ENVS undergraduate minor. The ENVS major was initiated in 2000 within the EPS Department to complement its eponymous B.S. and B.A. majors that emphasize field geology. ENVS was designed to "incorporate quantitative studies of the various interactions between the solid earth, oceans, atmosphere and biological processes taking place" within the whole Earth system. Since the implementation of ENVS, the degree program has grown to numerical parity with the EPS B.S. program: our most recent numbers indicate 195 declared ENVS majors and 148 declared EPS majors. ENVS offers one of the most popular physical science class in the A&S core curriculum (ENVS 101, The Blue Planet), which enrolled 1459 students in AY 2014-15. As we had hoped, ENVS graduates have moved into a very broad spectrum of career activities, ranging from graduate studies in the "hard sciences" to professional pursuits in the field of environmental sciences or in other areas, such as business, law and journalism. The ENVS curriculum is a success.

ENVS was developed 15 years ago with no new resources from the college. Existing courses were organized into the best curriculum we could cobble together, using an extensive list of groups of classes to loosely organize a course of study. The EPS department's instructional resources were stretched to accommodate just two new classes that formed the only upper division requirements for the new major. Given the success of the major, the addition of new faculty with degree-related expertise within the department, and the experience we have gained with the major over the past 15 years, we are now in a position to undertake a major revision to address aspects of the ENVS curriculum that need augmentation. We propose to develop a much firmer, objectives-driven sequence of required upper division courses that will explicitly carry the ENVS prefix in the UNM course catalog. Several of these courses are newly developed to serve ENVS majors; several others are adaptations of existing, popular EPS upper division courses now taken by most ENVS majors. We propose relatively modest changes to the ENVS minor that are consistent with the redesign of the major.

From the Student and Advisement perspective, this new curriculum will greatly help with long term degree planning and, as a related consequence, likely shorten student's average time to completion. Currently, with the structure of our Environmental Science curriculum, students know that they are required to complete 30 hours total from the seven different groups, but the sub-requirement of at least 6 hours within 4 different groups often proves to be very challenging to plan for past the current semester. The eventual selections made by many students, based largely on only the remaining groups needed, and offerings available, can lead to a lack of full exposure to what this new curriculum considers core concepts of this degree. This currently existing shortcoming is being rectified with the revised structure of our new curriculum designed to closely match our current Earth & Planetary Sciences degree format in that it has a more extensive required degree core sequence, which is composed of courses specifically offered in designated terms. We are however still asking for the completion of 12 additional hours of major electives (the same as EPS), which maintains the added benefit our degrees possess by allowing students to further study topics of added personal interest to them beyond the core concepts, and fully utilize the vast knowledge and experience provided by the faculty. Furthermore, this new degree core structure will also allow ENVS majors the extensive cohort style learning benefits currently available to all EPS majors.

## **Faculty Workload and Budgetary Impacts**

In order to cover the new classes, the EPS faculty members have had several detailed discussions about how to arrange our regular teaching rotations. Recently hired faculty members, Corrine Myers and Lindsay Lowe Worthington, have already committed to teaching the new ENVS 322L and ENVS321L courses, respectively, as part of their regular teaching rotations. In order to free up additional faculty time to support the new curriculum, we propose to sunset the following classes:

ENVS 330 (Environmental Systems), replaced by ENVS 320L (Environmental Systems).

EPS 428 (Applied Mathematics for Earth and Environmental Sciences) and  
EPS 433 (Statistics and Data Analysis), replaced by ENVS 315 (Statistics and Data Analysis)

EPS 436 (Climate Dynamics), replaced by ENVS 324 (Earth's Climatic Environment)

The EPS faculty have identified current faculty members who will teach the new courses, no new faculty lines are required to cover the new curriculum.

In order to support the new laboratory components of the curriculum, we are requesting an additional 2 full time (20 hr/week) teaching assistants. This will allow us to support the new labs without compromising our current introductory lab offerings for non-majors, which are currently already oversubscribed. If no new TA resources are available, the new curriculum may still be supported by reducing the number of introductory labs in order to support our ENVS majors.

---

## **Bachelor of Science in Environmental Science**

### **Required Courses**

ENVS 101, 102L (or EPS 101, 105L), 315, 320L, 321L, 322L, 323L, 324, 430L, EPS 401 & 490 and 12 additional credit hours in Earth and Planetary Sciences (excluding 493 and 495) or other approved courses (of which no more than 4 credit hours may be below 300).

**(Total = 44 credit hours)**

### **Supporting Math/Science Required Courses**

CHEM 121/123L, 122/124L; MATH 162, 163; PHYC 160, 161; BIOL 123/124L (or higher), CS 151L (or 152L), and 3 additional credit hours from: Chemistry (above 124L), Mathematics (above 163), Physics (above 161), Biology (above 124L), Astronomy (270 or above) or, with permission, from selected Geography or Engineering courses. An additional advanced math class selected from: 264, 311, 314, or 316 is strongly encouraged.

**(Total = 32 credit hours)**

ENGL 219 or 220 or 290 is required.

No minor study is required for students completing the B.S. program, although an optional minor or second major may be selected.

---

## **Minor Study Requirements**

### **Minor in Environmental Science**

A total of at least 18 credit hours distributed as follows:

1. ENVS 101 & 102L (or EPS 101 & 105L), and ENVS 320L.

Plus at least 10 additional credit hours selected from ENVS 315, 321L, 322L, 323L, 324, or 430L; EPS 201L, 251, 333, 352, 410, 415, 439, 455L, 462, 476, 481L, or 485L; GEOG 381L; or other approved courses. Only one course numbered 299 or below may count toward this requirement.



| Course Subject and Title                       | Credit Hrs. | Major    | Minor or 2nd Major | Core      | Upper Div. | Min. Grade | Notes |
|------------------------------------------------|-------------|----------|--------------------|-----------|------------|------------|-------|
| <b>Semester One:</b>                           |             |          |                    |           |            |            |       |
| ENVS 101/102L or EPS 101/105L                  | 4           | 4        | 4                  | 4         |            | C          |       |
| BIOL 123/124L                                  | 4           | 4        |                    |           |            | C          |       |
| MATH 121                                       | 3           |          | 3                  |           |            | C          |       |
| 1st English Composition                        | 3           |          | 3                  |           |            | C          |       |
| Freshman Academic Choice                       | 3           |          |                    |           |            | CR         |       |
| <b>Total:</b>                                  | <b>17</b>   | <b>8</b> | <b>0</b>           | <b>10</b> | <b>0</b>   |            |       |
| <b>Advisement: How to use the Degree Audit</b> |             |          |                    |           |            |            |       |
| <i>(anytime after the 10th week)</i>           |             |          |                    |           |            |            |       |

|                                                            |           |           |          |          |          |   |  |
|------------------------------------------------------------|-----------|-----------|----------|----------|----------|---|--|
| <b>Semester Three:</b>                                     |           |           |          |          |          |   |  |
| ENVS 320L                                                  | 4         | 4         |          | 4        |          | C |  |
| MATH 162                                                   | 4         | 4         |          |          |          | C |  |
| PHYC 160                                                   | 3         | 3         |          |          |          | C |  |
| CHEM 122/124L                                              | 4         | 4         |          |          |          | C |  |
| <b>Total</b>                                               | <b>15</b> | <b>15</b> | <b>0</b> | <b>0</b> | <b>4</b> |   |  |
| <b>Transferred into the College of Arts &amp; Sciences</b> |           |           |          |          |          |   |  |
| <i>(once semester grades are in)</i>                       |           |           |          |          |          |   |  |

|                              |           |           |          |          |           |   |          |
|------------------------------|-----------|-----------|----------|----------|-----------|---|----------|
| <b>Semester Five:</b>        |           |           |          |          |           |   |          |
| ENVS 315                     | 3         | 3         |          | 3        |           | C |          |
| ENVS 322L                    | 4         | 4         |          | 4        |           | C |          |
| ENVS Elective                | 3         | 3         |          | 3        |           | C |          |
| Supportive Elective          | 3         | 3         |          | 3        |           | C |          |
| Core Requirement             | 3         |           | 3        |          |           | C | See List |
| <b>Total</b>                 | <b>16</b> | <b>13</b> | <b>0</b> | <b>3</b> | <b>13</b> |   |          |
| <b>Visit Career Services</b> |           |           |          |          |           |   |          |

|                                                         |           |          |          |          |          |    |                     |
|---------------------------------------------------------|-----------|----------|----------|----------|----------|----|---------------------|
| <b>Semester Seven:</b>                                  |           |          |          |          |          |    |                     |
| ENVS 324                                                | 3         | 3        |          | 3        |          | C  |                     |
| ENVS Elective                                           | 3         | 3        |          | 3        |          | C  |                     |
| Core Requirement                                        | 3         |          | 3        |          |          | C  | See List            |
| Core Requirement                                        | 3         |          | 3        |          |          | C  | See List            |
| Upper-Division Elective                                 | 3         |          |          | 3        |          | CR | EPS 493 Recommended |
| <b>Total</b>                                            | <b>15</b> | <b>6</b> | <b>0</b> | <b>6</b> | <b>9</b> |    |                     |
| <b>Advisement: Departmental Check-In / Senior Visit</b> |           |          |          |          |          |    |                     |

| Course Subject and Title                        | Credit Hrs. | Major    | Minor or 2nd Major | Core     | Upper Div. | Min. Grade | Notes |
|-------------------------------------------------|-------------|----------|--------------------|----------|------------|------------|-------|
| <b>Semester Two:</b>                            |             |          |                    |          |            |            |       |
| CHEM 121/123L                                   | 4           | 4        |                    | 4        |            | C          |       |
| CS 151L or 152L                                 | 3           | 3        |                    |          |            | C          |       |
| MATH 153                                        | 5           |          |                    |          |            | C          |       |
| 2nd English Composition                         | 3           |          |                    | 3        |            | C          |       |
| <b>Total:</b>                                   | <b>15</b>   | <b>7</b> | <b>0</b>           | <b>7</b> | <b>0</b>   |            |       |
| <b>Advisement: Enhanced Degree Audit skills</b> |             |          |                    |          |            |            |       |

|                                                    |           |           |          |          |          |   |  |
|----------------------------------------------------|-----------|-----------|----------|----------|----------|---|--|
| <b>Semester Four:</b>                              |           |           |          |          |          |   |  |
| ENVS 321L                                          | 4         | 4         |          |          | 4        | C |  |
| MATH 163                                           | 4         | 4         |          |          |          | C |  |
| PHYC 161                                           | 3         | 3         |          |          |          | C |  |
| ENGL 219 or 220                                    | 3         | 3         |          | 3        |          | C |  |
| Second Language                                    | 3         |           |          | 3        |          | C |  |
| <b>Total</b>                                       | <b>17</b> | <b>14</b> | <b>0</b> | <b>6</b> | <b>4</b> |   |  |
| <b>Advisement: Attend Departmental Orientation</b> |           |           |          |          |          |   |  |
| <i>(within the 4th to 12th week)</i>               |           |           |          |          |          |   |  |

|                                                            |           |           |          |          |           |   |          |
|------------------------------------------------------------|-----------|-----------|----------|----------|-----------|---|----------|
| <b>Semester Six:</b>                                       |           |           |          |          |           |   |          |
| ENVS 323L                                                  | 4         | 4         |          |          | 4         | C |          |
| ENVS Elective                                              | 3         | 3         |          |          | 3         | C |          |
| ENVS Elective                                              | 3         | 3         |          |          | 3         | C |          |
| Core Requirement                                           | 3         |           |          | 3        |           | C | See List |
| Core Requirement                                           | 3         |           |          | 3        |           | C | See List |
| <b>Total</b>                                               | <b>16</b> | <b>10</b> | <b>0</b> | <b>6</b> | <b>10</b> |   |          |
| <b>Complete Graduation Workshop &amp; Apply for degree</b> |           |           |          |          |           |   |          |
| <b>Advisement: Departmental Check-In</b>                   |           |           |          |          |           |   |          |
| <i>(after 4th week)</i>                                    |           |           |          |          |           |   |          |

|                                                                                                    |            |           |          |           |           |    |                     |
|----------------------------------------------------------------------------------------------------|------------|-----------|----------|-----------|-----------|----|---------------------|
| <b>Semester Eight:</b>                                                                             |            |           |          |           |           |    |                     |
| ENVS 430L                                                                                          | 4          | 4         |          |           | 4         | C  |                     |
| EPS 401                                                                                            | 1          | 1         |          |           | 1         | C  |                     |
| EPS 490                                                                                            | 1          | 1         |          |           | 1         | C  |                     |
| Upper-Division Elective                                                                            | 3          |           |          |           | 3         | CR | EPS 495 Recommended |
| <b>Additional hours may be needed this term for scholarship or discounted tuition requirements</b> |            |           |          |           |           |    |                     |
| <b>Total</b>                                                                                       | <b>9</b>   | <b>6</b>  | <b>0</b> | <b>0</b>  | <b>9</b>  |    |                     |
| <b>Advisement: Senior Visit</b>                                                                    |            |           |          |           |           |    |                     |
| <b>Visit Graduation Fair</b>                                                                       |            |           |          |           |           |    |                     |
| <b>Degree Total</b>                                                                                | <b>120</b> | <b>79</b> | <b>0</b> | <b>38</b> | <b>49</b> |    |                     |

\*No minor study is required for students completing the B.S. program, although an optional minor or second major may be selected.

| Learning Outcome/objective                                                                                                                                                                 | ENVS CORE CLASSES                                     |                                                       |                                                                            |                                                                |                                                           |                                                  |                                                                                  |                                                          |                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                            | The Blue Planet<br>(ENVS 101)                         | The Blue Planet<br>Lab (ENVS 102L)                    | Fall<br>ENVS 320L (4):<br>Environmental<br>Systems (*formerly<br>ENVS 330) | Spring<br>ENVS 321L (4):<br>Earth Materials /<br>Critical Zone | Fall<br>ENVS 322L (4): Life<br>and the Earth<br>Systems   | Fall<br>ENVS 315 Statistics<br>in Earth Sciences | Spring<br>ENVS 323L (4):<br>Water in the Earth<br>System                         | Fall<br>ENVS 324 (3):<br>Earth's Climatjc<br>Environment | Spring<br>ENVS 430L: Ad-<br>vanced Environ-<br>mental Systems /<br>Environmental<br>Field Methods |
| <b>Pre-Requisites</b>                                                                                                                                                                      | 3<br>None                                             | 1                                                     | 4<br>ENVS 101/102 OR EPS<br>101/105L; MATH 121                             | 4<br>ENVS 320L; CHEM<br>121/122L; MATH 150<br>OR MATH 153      | 4<br>ENVS 321L; MATH 150<br>OR MATH 153; BIOL<br>123/124L | 3                                                | 4<br>ENVS321L OR EPS304L;<br>MATH 162; PHYC 160;<br>CS151L; ENVS 315<br>MATH 163 | 3<br>ENVS323L; MATH 163;<br>PHYC 160                     | 4<br>ENVS 324                                                                                     |
| <b>Co-Requisites</b>                                                                                                                                                                       | None                                                  |                                                       |                                                                            |                                                                |                                                           | MATH 162                                         |                                                                                  |                                                          |                                                                                                   |
| <b>CLASSES YOU SHOULD BE TAKING</b>                                                                                                                                                        | MATH 121 or MATH<br>150 or MATH 153;<br>CHEM 121/123L | MATH 121 OR MATH<br>150 OR MATH 153;<br>CHEM 121/123L | CHEM 122/124L                                                              | MATH 162                                                       | PHYC 160                                                  |                                                  | MATH 163                                                                         |                                                          |                                                                                                   |
|                                                                                                                                                                                            | Staff                                                 |                                                       | Weissmann<br>Scuderi<br>Schmandt                                           | Fischer<br>Worthington-Lowe<br>Meyer                           | Myers<br>Scuderi                                          | Gutzler<br>Galewsky<br>Myers                     | Weissmann<br>Galewsky                                                            | Gutzler<br>Fawcett                                       | Crossey                                                                                           |
| P1. Students will be able to evaluate conservation of mass, momentum and energy transformations in Earth's Systems                                                                         | Introduced                                            | Introduced                                            | Practiced                                                                  | Practiced                                                      | Practiced                                                 |                                                  | Practiced                                                                        | Mastered -<br>Evaluated                                  |                                                                                                   |
| P2. Students will be able to analyze the role of Earth Materials (rocks and minerals) and Earth Structure (plate tectonics) in Earth Systems.                                              | Introduced                                            | Introduced                                            | Practiced                                                                  | Practiced                                                      | Practiced                                                 |                                                  | Practiced                                                                        |                                                          | Mastered -<br>Evaluated                                                                           |
| P3. Students will be able to evaluate a landscape to infer active and past processes and current and past climates.                                                                        |                                                       |                                                       | Introduced                                                                 | Practiced                                                      |                                                           |                                                  | Practiced                                                                        |                                                          | Mastered -<br>Evaluated                                                                           |
| P4. Students will be able to evaluate interactions between different spheres (Atmosphere, hydrosphere, biosphere, geosphere)                                                               | Introduced                                            | Introduced                                            | Practiced                                                                  | Practiced                                                      | Practiced                                                 |                                                  | Practiced                                                                        | Practiced                                                | Mastered -<br>Evaluated                                                                           |
| P5. Students will be able to evaluate atmospheric processes and impacts of global climate change on atmospheric systems.                                                                   | Introduced                                            | Introduced                                            | Practiced                                                                  | Practiced                                                      | Practiced                                                 |                                                  | Practiced                                                                        | Mastered -<br>Evaluated                                  |                                                                                                   |
| P6. Students will be able to evaluate case studies on environmental and scientific ethics and be able to define ethical behavior in science.                                               |                                                       |                                                       | Introduced                                                                 | Practiced                                                      | Practiced                                                 | Practiced                                        | Practiced                                                                        | Practiced                                                | Mastered -<br>Evaluated                                                                           |
| P7. Students will be able to apply the scientific method to analyze a problem in Environmental Sciences.                                                                                   | Introduced                                            | Introduced                                            | Practiced                                                                  | Practiced                                                      | Practiced                                                 | Practiced                                        | Practiced                                                                        | Practiced                                                | Mastered -<br>Evaluated                                                                           |
| P8. Students will be able to analyze the impact of the biosphere, through the process of evolution and ecology, on the Earth System.                                                       | Introduced                                            | Introduced                                            | Practiced                                                                  |                                                                | Practiced/<br>Mastered - Evalu-                           |                                                  |                                                                                  |                                                          | Mastered -<br>Evaluated                                                                           |
| <b>Skills:</b>                                                                                                                                                                             |                                                       |                                                       |                                                                            |                                                                |                                                           |                                                  |                                                                                  |                                                          |                                                                                                   |
| <b>Computational Skills:</b>                                                                                                                                                               |                                                       |                                                       |                                                                            |                                                                |                                                           |                                                  |                                                                                  |                                                          |                                                                                                   |
| S1. Students will be able to apply algebraic equations to solve Environmental Science problems.                                                                                            | Introduced                                            | Introduced                                            | Introduced                                                                 | Practiced                                                      |                                                           | Practiced                                        | Practiced                                                                        | Practiced                                                | Mastered -<br>Evaluated                                                                           |
| S2. Students will be able to apply basic statistics to analyze a data set.                                                                                                                 | Introduced                                            | Introduced                                            | Introduced                                                                 | Practiced                                                      | Practiced                                                 | Practiced/<br>Mastered - Evalu-                  | Practiced                                                                        | Practiced                                                | Practiced                                                                                         |
| S3. Students will be able to evaluate and generate data for use in time series and geospatial analysis.                                                                                    |                                                       |                                                       | Introduced                                                                 |                                                                | Practiced                                                 | Practiced                                        | Practiced                                                                        | Practiced                                                | Mastered -<br>Evaluated                                                                           |
| S4. Students will be able to solve derivatives and integrals as related to Environmental Sciences, and evaluate differential equations analytically or numerically.                        |                                                       |                                                       | Introduced                                                                 | Practiced                                                      |                                                           |                                                  | Practiced                                                                        | Practiced                                                | Mastered -<br>Evaluated                                                                           |
| S5. Students will be able to write equations and evaluate fluxes in an Earth system using finite difference solutions.                                                                     |                                                       |                                                       | Introduced                                                                 |                                                                |                                                           |                                                  | Practiced                                                                        |                                                          | Mastered -<br>Evaluated                                                                           |
| S6. Students will be able to apply and evaluate geochemical reactions in a natural system using geochemical modeling software.                                                             |                                                       |                                                       | Introduced                                                                 | Practiced                                                      |                                                           |                                                  | Practiced                                                                        |                                                          | Mastered -<br>Evaluated                                                                           |
| S7. Students will be able to demonstrate proficiency in using 3D analysis and visualization software.                                                                                      |                                                       |                                                       |                                                                            | Introduced                                                     |                                                           |                                                  | Practiced                                                                        |                                                          | Mastered -<br>Evaluated                                                                           |
| <b>GIS skills:</b>                                                                                                                                                                         |                                                       |                                                       |                                                                            |                                                                |                                                           |                                                  |                                                                                  |                                                          |                                                                                                   |
| S8. Students will be able to download data from a reliable source and create relevant maps using the data.                                                                                 |                                                       |                                                       | Introduced                                                                 |                                                                | Practiced                                                 | Practiced                                        | Practiced                                                                        | Practiced                                                | Mastered -<br>Evaluated                                                                           |
| S9. Students will be able to place spatial data into a GIS database.                                                                                                                       |                                                       |                                                       | Introduced                                                                 |                                                                | Practiced                                                 | Practiced                                        | Practiced                                                                        |                                                          | Mastered -<br>Evaluated                                                                           |
| S10. Students will be able to make measurements of slope, aspect, and gradients using GIS tools, and they will be able to create derivative maps (e.g., drainage basins delineation, etc). | Introduced                                            | Introduced                                            |                                                                            |                                                                |                                                           | Practiced                                        | Practiced                                                                        |                                                          | Mastered -<br>Evaluated                                                                           |
| <b>Field methods:</b>                                                                                                                                                                      |                                                       |                                                       |                                                                            |                                                                |                                                           |                                                  |                                                                                  |                                                          |                                                                                                   |
| S11. Students will be able to produce a detailed map of a study site and place this into a GIS format.                                                                                     |                                                       |                                                       | Introduced                                                                 |                                                                |                                                           |                                                  | Practiced                                                                        |                                                          | Mastered -<br>Evaluated                                                                           |
| S12. Students will be able to follow protocols for acquiring field data (e.g., geochemical protocols, water level sampling)                                                                | Introduced                                            | Introduced                                            |                                                                            | Practiced                                                      | Practiced                                                 |                                                  | Practiced                                                                        |                                                          | Mastered -<br>Evaluated                                                                           |
| <b>Geochemistry skills:</b>                                                                                                                                                                |                                                       |                                                       |                                                                            |                                                                |                                                           |                                                  |                                                                                  |                                                          |                                                                                                   |
| S13. Students will be able to apply concepts in interexchange equilibrium, thermodynamics, redox, solution chemistry, and organic chemistry to geochemical problems.                       |                                                       |                                                       | Introduced                                                                 | Practiced                                                      |                                                           |                                                  | Practiced                                                                        |                                                          | Mastered -<br>Evaluated                                                                           |
| <b>Communication and writing skills</b>                                                                                                                                                    |                                                       |                                                       |                                                                            |                                                                |                                                           |                                                  |                                                                                  |                                                          |                                                                                                   |
| S14. Students will be able to write a clear and concise report using proper grammar and spelling.                                                                                          |                                                       |                                                       | Introduced                                                                 | Practiced                                                      | Practiced                                                 |                                                  | Practiced                                                                        | Practiced                                                | Mastered -<br>Evaluated                                                                           |
| S15. Students will be able to present material in a concise oral or poster format.                                                                                                         |                                                       |                                                       | Introduced                                                                 |                                                                | Practiced                                                 |                                                  |                                                                                  |                                                          | Mastered -<br>Evaluated                                                                           |
| S16. Students will be able to find and synthesize published works (library research)                                                                                                       |                                                       |                                                       | Introduced                                                                 |                                                                | Practiced                                                 |                                                  | Practiced                                                                        | Practiced                                                | Mastered -<br>Evaluated                                                                           |

**\*\* outcomes P1-P7 (top of list) should be assessible for the programmatic assessment**

# Proposed New Course Syllabi

|                  |                                                                  |
|------------------|------------------------------------------------------------------|
| <b>ENVS 315</b>  | <b>Statistics and Data Analysis (Replaces EPS 428 &amp; 433)</b> |
| <b>ENVS 320L</b> | <b>Environmental Systems (Replaces ENVS 330)</b>                 |
| <b>ENVS 321L</b> | <b>Earth Materials and Critical Zone Geology</b>                 |
| <b>ENVS 322L</b> | <b>Life and the Earth System</b>                                 |
| <b>ENVS 323L</b> | <b>Water in the Earth System</b>                                 |
| <b>ENVS 324</b>  | <b>Earth's Climatic Environment (Replaces EPS 436)</b>           |
| <b>ENVS 430L</b> | <b>Advanced Environmental Science (lab officially added)</b>     |

## **PROPOSED SYLLABUS**

### **COURSE:** ENVS 315: Statistics in Earth Sciences

**Instructor:**

**Email:**

**Office Location:**

**Office Phone:**

**Office Hours:**

**Course Credits:** 3

**Class Meeting Day(s):**

**Class Time:**

**Class Location / Room:**

**Term/Semester:** Fall XX

**Course Description:** Statistical analysis plays an important role in understanding Earth Systems. In this class we will explore basic statistical representations of earth science data, matrix algebra, and multivariate data analysis and Fourier analysis. You will gain a basic understanding of probability and statistics, with particular application to Earth Science data analysis. You will conduct this work in the Excel software environment, thus becoming more familiar with spreadsheet-based analysis. You will also explore ethical data analysis practices.

**Pre-Requisites:** None

**Co-Requisites:** MATH 162

### **Course Objectives and Student Learning Outcomes:**

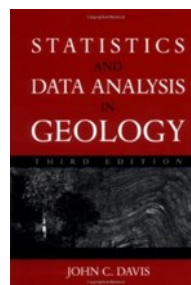
When you complete this course, you will be able to do the following:

1. Quantify uncertainties using basic principles of probability, and assess the statistical significance of calculations based on limited samples of data  
[Learning Outcomes P6, P7] [Skill Outcome S2]
2. Apply basic statistics to analyze a data set  
[Learning Outcomes P6, P7] [Skill Outcome S2, S8]
3. Evaluate time series quantitatively using standard data analysis techniques  
[Learning Outcome P7] [Skill Outcome S3, S8]
4. Assess spatial variance and understand statistical terminology associated with geographic information systems  
[Learning Outcome P7] [Skill Outcomes S8, S9, S10]

### **Proposed Textbook and Supplies:**

**Required:** *Statistics and Data Analysis in Geology*,  
**3<sup>rd</sup> Edition**, 2002

by John C. Davis (Wiley)



**Recommended:** A Statistics Cookbook (Schaum's outline is a venerable and inexpensive one)

### **Other books:**

*Data Analysis in the Earth Sciences*, G. Middleton (Prentice Hall, 2000)  
*Introduction to Linear Algebra in Geology*, J. Ferguson (Chapman & Hall, 1994)  
*Mathematics: A simple tool for geologists*, D. Waltham (Chapman & Hall, 1994)  
*Fourier Analysis of Time Series: An Introduction*, P. Bloomfield (Wiley, 2000)  
*Spectral Analysis in Geophysics*, M. Båth (Elsevier, 1978)  
*Statistical Methods in the Atmospheric Sciences*, D. Wilks (Academic, 1995)  
*Statistical Analysis in Climate Research*, von Storch and Zwiers (Cambridge, 1999)  
*Matlab Recipes for Earth Sciences*, M.H. Trauth (Springer 2007)  
*Spatiotemporal Data Analysis*, G. Eschel (Princeton, 2012)

## Expected Course Format:

The course will be conducted using a combination of lecture and homework exercises. Work will include:

**Readings from the Davis textbook**, plus supplemental handouts from the instructor

### Homework assignments:

Six homework sets will be assigned, as listed on the following course schedule pages. The homework will involve both hand calculations and spreadsheet calculations using Excel.

**...no credit for homework turned in late!**

### Exams:

1 midterm, 1 final exam, in class on the dates shown on the course outline that follows.

## Expected Course Requirements and Grading:

|                                  |     |
|----------------------------------|-----|
| <b><i>Homework Exercises</i></b> | 40% |
| <b><i>Midterm Exam</i></b>       | 25% |
| <b><i>Final Exam</i></b>         | 35% |

**Grading Scale:** A+ (97 -100), A (93-96), A- (90-92), B+ (87-89), B (83-86), B- (80-82), C+ (77-79), C (73-76), C- (70-72), D+ (67-69), D (63-66), D- (60-62), F (0-59)

- decimal portions will be rounded up if over 0.5, down if below 0.5

**\*\* I reserve the right to modify the strict point system for grading.**

## Email / Internet Access Policy:

**All students are required to have a university e-mail account.** We will be using UNM LEARN as a course tool and it requires a UNM NetID account for access. Also, I will email updates/changes to the class and reminders or help for assignments during the duration of the class. You will need to use your UNM email (or forward that email) to get these announcements. **YOU NEED TO USE UNM LEARN IN ORDER TO BE SUCCESSFUL IN THIS CLASS!**

## Accommodation Statement:

Accessibility Services (Mesa Vista Hall 2021, 277-3506) provides academic support to students who have disabilities. If you think you need alternative accessible formats for undertaking and completing coursework, you should contact this service right away to assure your needs are met in a timely manner. If you need local assistance in contacting Accessibility Services, see the Bachelor and Graduate Programs office. I will make every effort to work things out with you if (**and only if**) you give me advance notice.

**Course Outline:** Lecture schedule is approximate; deadlines and exam dates are fixed

| <u>week</u>         | <u>dates</u> | <u>topic</u>                                                                  | <u>[pg/Davis 3ed]</u> | <u>coursework</u>  |
|---------------------|--------------|-------------------------------------------------------------------------------|-----------------------|--------------------|
| <b>1</b>            |              | <b>Introduction to Probability and Statistics (Ch 1, 2)</b>                   |                       |                    |
|                     | M            | Introduction to probability                                                   | [1-24]                |                    |
|                     | W            | <b>Discussion:</b> Introduction to Excel                                      |                       |                    |
|                     | F            | <i>no class on this day</i>                                                   |                       |                    |
| <b>2</b>            |              | <b>Probability (Ch 2)</b>                                                     |                       |                    |
|                     | M            | <i>MLK holiday; no class</i>                                                  |                       |                    |
|                     | W            | <b>Discussion:</b> Laws of probability; Frequentist vs Bayesian approaches    |                       | <b>HW 1 posted</b> |
|                     | F            | Distributions and random variables                                            | [25-33]               |                    |
| <b>3</b>            |              | <b>Summary statistics (Ch 2)</b>                                              |                       |                    |
|                     | M            | Measures of central tendency and spread                                       | [34-39]               |                    |
|                     | W            | <b>Discussion:</b> HW1; estimates of average, spread, and correlation         |                       |                    |
|                     | F            | Multivariate analysis: Covariance and correlation                             | [40-50]               | <b>HW 1 due</b>    |
| <b>4</b>            |              | <b>Assessment of confidence and significance (Ch 2)</b>                       |                       |                    |
|                     | M            | Normal distributions; Central Limits Theorem                                  | [50-59]               |                    |
|                     | W            | <b>Discussion:</b> significance tests, significant digits, and random numbers |                       | <b>HW 2 posted</b> |
|                     | F            | Null hypotheses; significance tests; confidence intervals                     | [60-74]               |                    |
| <b>5</b>            |              | <b>Analysis of variance; non-normally distributed data (Ch 2)</b>             |                       |                    |
|                     | M            | F-distribution; Analysis of variance (ANOVA)                                  | [75-92]               |                    |
|                     | W            | <b>Discussion:</b> HW2; ANOVA                                                 |                       |                    |
|                     | F            | c2, Gamma distributions; non-normally distributed data                        | [92-107]              | <b>HW 2 due</b>    |
| <b>6</b>            |              | <b>Sequences of data; time series analysis (Ch 4)</b>                         |                       |                    |
|                     | M            | Sequences & runs of data; missing data;                                       | [159-191]             |                    |
|                     | W            | <b>Discussion:</b> Intro to time series analysis; Poisson distribution        |                       | <b>HW 3 posted</b> |
|                     | F            | Least-squares curve fitting                                                   | [191-227]             |                    |
| <b>7</b>            |              | <b>Linear regression (Ch 4, 6)</b>                                            |                       |                    |
|                     | M            | Linear regression                                                             | [191-227]             |                    |
|                     | W            | <b>Discussion:</b> HW3; regression                                            |                       |                    |
|                     | F            | Multiple regression                                                           | [461-470]             | <b>HW 3 due</b>    |
| <b>8</b>            |              | <b>Review / Midterm exam</b>                                                  |                       |                    |
|                     | M            | makeup/catchup                                                                |                       |                    |
|                     | W            | <b>Discussion:</b> review for midterm exam                                    |                       |                    |
|                     | F            | <b>Midterm exam in class</b>                                                  |                       | <b>exam</b>        |
| <b>Spring Break</b> |              |                                                                               |                       |                    |
| <b>9</b>            |              | <b>Time series: time domain vs frequency domain analysis</b>                  |                       |                    |
|                     | M            | Autocorrelation, autocovariance; intro to Fourier series                      | [243-268]             |                    |
|                     | W            | <b>Discussion:</b> discuss midterm exam; basic trigonometry review            |                       | <b>HW 4 posted</b> |
|                     | F            | Spectral analysis: Fourier's theorem                                          | [268-277]             |                    |
| <b>10</b>           |              | <b>Introduction to spectral analysis (Ch 4)</b>                               |                       |                    |
|                     | M            | Power spectrum                                                                | [275-277]             |                    |
|                     | W            | <b>Discussion:</b> HW4; periodograms, power spectra                           |                       |                    |
|                     | F            | Smoothing; tradeoff between resolution & confidence                           | <b>handout</b>        | <b>HW 4 due</b>    |

|           |   |                                                                         |           |             |
|-----------|---|-------------------------------------------------------------------------|-----------|-------------|
| <b>11</b> |   | <b>Spectral analysis - continued</b>                                    |           |             |
|           | M | Significance of spectral peaks                                          | handout   |             |
|           | W | <b>Discussion:</b> spectral smoothing; assessment of spectral peaks     |           | HW 5 posted |
|           | F | Cross-spectral analysis                                                 | handout   |             |
| <b>12</b> |   | <b>Introduction to eigenanalysis (Ch 3)</b>                             |           |             |
|           | M | Matrix algebra, determinants, inverse                                   | [123-141] |             |
|           | W | <b>Discussion:</b> HW5; systems of linear equations                     |           |             |
|           | F | Introduction to eigenvectors                                            | [141-153] | HW 5 due    |
| <b>13</b> |   | <b>Eigenanalysis - continued (Ch 3, 6)</b>                              |           |             |
|           | M | Principal components analysis; eigenvectors                             | [509-525] |             |
|           | W | <b>Discussion:</b> EOFs and PCs                                         |           | HW 6 posted |
|           | F | Principal components analysis, part II                                  | [509-525] |             |
| <b>14</b> |   | <b>Spatial Analysis (Ch 5)</b>                                          |           |             |
|           | M | Directional and spherical data                                          | [316-341] |             |
|           | W | <b>Discussion:</b> HW6                                                  |           |             |
|           | F | Contouring / Trend surfaces                                             | [380-407] | HW 6 due    |
| <b>15</b> |   | <b>Spatial Analysis - continued</b>                                     |           |             |
|           | M | Introductory concepts of kriging                                        | [416-428] |             |
|           | W | <b>Discussion:</b> return HW6, summary of temporal and spatial analysis |           |             |
|           | F | review for final exam                                                   |           |             |

**Final Exam** (according to final exam schedule)

## **PROPOSED SYLLABUS**

### **COURSE: ENVS 320L: Environmental Systems (Replaces ENVS 330)**

**Instructor:**

**Email:**

**Office Location:**

**Office Phone:**

**Office Hours:**

**Course Credits:** 4

**Class Meeting Day(s):**

**Class Time:**

**Class Location / Room:**

**Term/Semester:** Fall XX

**Course Description:** Analysis of environmental science data focusing on local water, soil, atmospheric, and bedrock systems and comparisons to analogous systems around the world. In-class exercises, outdoor data collection trips, and laboratory exercises provide hands-on experience with collection of physical and chemical data, mapping, data base development, and basic statistical and geospatial analysis.

**Pre-Requisites:** ENVS 101 (The Blue Planet) or EPS 101 (How the Earth Works); ENVS 102L (The Blue Planet Lab) or EPS 105L (How the Earth Works Lab); MATH 121 (College Algebra)

**Co-Requisites:** None

### **Course Objectives and Student Learning Outcomes:**

When you complete this course, you will be able to do the following:

Students will be able to describe the general characteristics of each of the principal components of the Earth System (geosphere, hydrosphere, atmosphere, and biosphere).

*Links to Programmatic Objectives P1, P2, and P4.*

Students will be able to describe and conceptually model the conservation of mass, momentum, and energy in Earth Systems, and students will be able to analyze fluxes of energy and key elements and compounds, including water, carbon, and nitrogen (biogeochemical cycles), between the principal components of the Earth System through use of box models, simple Excel spreadsheets, and graphing.

*Links to Programmatic Objectives P1, P2, P4, and P5 and Skills Objectives S1, S2, S5, and S6.*

Students will be able to apply simple (algebraic-based) mathematical models to define Earth system processes. Students will begin to use calculus principles used to describe Earth system processes.

*Links to Skills Objective S1, S4.*

Students will be able to apply common tools used in Environmental Science, such as interpretation of maps, graphs, figures, and box models to enable analysis and synthesis of data collected in the field.

*Links to Programmatic objectives P3, P6 and P7 and Skills Objectives S1, S8, S9, S10, S11, S12 and S13.*

Students will be able to employ common software for scientific work, such as word processing, spreadsheet programs, and presentation software.

*Links to Skills Objectives S3, S10 and S15.*

Students will be able to search, read and report on literature related to Environmental Science, and students will be able to present this material in a concise manner (specifically in a poster presentation).

*Links to Skills Objectives S14, S15, and S16.*

Students will be able to explain and describe some principles of ethics in the conduct and application of science, within the academic and professional arenas.

○ *Links to Programmatic Objective P6.*

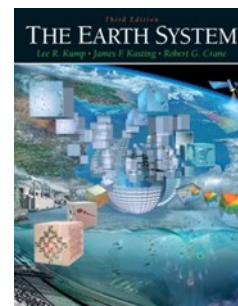


## Proposed Textbook and Supplies:

### ***The Earth System, Third Edition***, 2009

by Lee R. Kump, James F. Kasting, and Robert G. Crane

Supplemented by course pack tailored to modules.



## Expected Course Format:

The course and laboratory exercises are organized into 4 modules with a required data collection field trip during each module as part of the lab component. Each module follows a similar sequence beginning with a brief introduction to the relevant local environment, the questions to be investigated, and development of a data collection plan. Once data are collected different principles will be introduced at the beginning of the week progressing toward application of those principles to newly collected data and public data by the end of the week. Frequent (1-2 per week) in-class exercises will focus on quantitative analysis drawing from basic statistics, mechanics, chemistry, and geospatial analysis. The lecture portion of the course will incorporate data collected in the lab course and place the local environmental systems in a global and temporally evolving perspective. Additionally, the lecture portion will include exercises related to application of principles of conservation of mass, momentum, and energy at various scales (from global to local scales) and feedback loops.



## Expected Course Requirements and Grading:

|                                                                  |           |                                                                  |
|------------------------------------------------------------------|-----------|------------------------------------------------------------------|
| <b><i>In-Class Exercise Write-ups and Homework Exercises</i></b> | 20%       | Several homework assignments during the course of the semester.  |
| <b><i>Laboratory Exercise/Module Write-ups</i></b>               | 15%       | A final write-up will be required for each of the 4 lab modules. |
| <b><i>Exams</i></b>                                              | 25% total | Two midterm exams                                                |
|                                                                  | 15%       | Final Exam (Comprehensive)                                       |
| <b><i>Participation</i></b>                                      | 5%        | Evaluated on participation in activities.                        |
| <b><i>Final Project</i></b>                                      | 20%       | Poster presentation and related assignments.                     |

**Grading Scale:** A+ (97 -100), A (93-96), A- (90-92), B+ (87-89), B (83-86), B- (80-82), C+ (77-79), C (73-76), C- (70-72), D+ (67-69), D (63-66), D- (60-62), F (0-59)

## Email / Internet Access Policy:

**All students are required to have a university e-mail account.** We will be using UNM LEARN as a course tool and it requires a UNM NetID account for access. Also, I will email updates/changes to the class and reminders or help for assignments during the duration of the class. You will need to use your UNM email (or forward that email) to get these announcements. **YOU NEED TO USE UNM LEARN IN ORDER TO BE SUCCESSFUL IN THIS CLASS!**

## Attendance Policy:

Regular and punctual attendance is required. UNM *Pathfinder* policies apply, which in part means instructor drops based on non-attendance are possible. This policy applies regardless of the grading option you have chosen.

## Accommodation Statement:

Accessibility Services (Mesa Vista Hall 2021, 277-3506) provides academic support to students who have disabilities. If you think you need alternative accessible formats for undertaking and completing coursework, you should contact this service right away to assure your needs are met in a timely manner. If you need local assistance in contacting Accessibility Services, see the Bachelor and Graduate Programs office.

## Draft Schedule of Topics:

### Module 1 – Physical aspects of surface water transport and riparian environments.

#### Lecture portion topics:

- Systems science introduction
- Hydrologic cycle exercises and box models;
- Basics of feedback loops;
- Basic statistics primer exercises;
- Measurement of surface water discharge;
- Riparian ecology; and
- General GIS applications and computer management.

#### Lab portion:

- Field notebook methods;
- Field data collection and observations at the Bosque;
  - Tree height, density, and diameter measurements;
  - GPS waypoint collection techniques.
- Stream gaging exercise (field trip to small local stream for gaging);
- Application of basic statistics to field data (distributions, central estimators, variance, etc.);
- Data downloading from governmental agency sources (e.g., stream gage data and aerial photographs; and
- Introduction to Geographic Information Systems (GIS) software.

## **Module 2 – Sandia Crest vegetation change and climate.**

### Lecture portion topics:

- Global energy balance;
- Atmospheric circulation patterns and relationship to NM climate;
- Atmospheric processes and weather (e.g., orographic effects);
- Local insolation calculations; and
- Climate variability.

### Lab portion topics:

- Basic orienteering with map and compass;
- Temperature data collection as functions of elevation and time (download data from sensors placed in the field).
- Field observations of vegetation relationships relative to slope and aspect in the Sandias, and observations of tree density and mortality.
- Field observations of soil textures along the Rio Grande to Sandia Crest transect (to be used in Module 3).
- Remote sensing exercises to evaluate vegetation distributions from Landsat data (e.g., NDVI and EVI), change in vegetation, and influence of insolation on vegetation distribution (modeled using tools in ArcGIS)

## **Module 3 – Alluvial fans/foothills geomorphology.**

### Lecture portion topics:

- Fluvial and hillslope processes and the influence and evidence of past climate changes;
  - Drainage network evolution and stream order;
  - Controls on deposition and erosion.
- Weathering (geosphere / atmosphere interactions) and soil development; and
- Rio Grande Rift development and influence of faults and structures on groundwater recharge.

### Laboratory portion topics:

- Field mapping exercises on terraces and alluvial fans at Sandia foothills;
- Drainage basin mapping and evaluation;
  - Sediment source area delineation
  - Drainage basin geomorphic metrics and stream order calculations;
- Locating springs using aerial photography;
- Evaluation of soil textures along transect and relationship to fluvial/alluvial geomorphology.

## **Module 4 – Bosque, geochemistry focus.**

### Lecture portion concepts:

- Geochemistry principles – anion/cation balance, chemical equilibrium;
- Geochemical sampling and water quality;
- Natural and anthropogenic sources of constituents in groundwater; and
- Groundwater resources and movement.
- Statistical analyses – probability, correlation, regression, ANOVA.

### Lab portion concepts:

- Field geochemical measurement and sampling methods;
- Laboratory processing and evaluation of samples;
- Basic geochemical modeling and chemical charge balance; and
- Statistical analysis of geochemical results.

## **Summary week – Establish links between modules.**

## **PROPOSED SYLLABUS**

### **COURSE:** ENVS 321L: Earth Materials and Critical Zone Geology

**Instructor:**

**Email:**

**Office Location:**

**Office Phone:**

**Office Hours:**

**Course Credits:** 4

**Class Meeting Day(s):**

**Class Time:**

**Class Location / Room:**

**Term/Semester:** Spring XX

**Course Description:** Rocks and minerals form a critical foundation for all Earth's systems, and understanding the chemical composition and physical characteristics of these Earth's materials is important for work in Environmental Sciences. This course covers rock and mineral formation, chemistry, stability, and transformations on Earth's surface, focusing on processes related to the "critical zone", or uppermost crust.

**Pre-Requisites:** ENVS 320L (Environmental Systems); CHEM 121/123L (General Chemistry 1 and lab); MATH 150 (Pre-calculus) or MATH 153 (Pre-calculus and Trigonometry)

**Co-Requisites:** None

### **Course Objectives and Student Learning Outcomes:**

When you complete this course, you will be able to do the following:

Differentiate different rock types (e.g., igneous, metamorphic, and sedimentary), identify basic minerals in these rocks, and explain their environments of formation and interpret their plate tectonic context.

*Links to Programmatic Objectives P1, P2, and Skills Objectives S1, S13, and S14.*

Employ knowledge of isotopic systems to calculate age of rocks and interpret processes of formation

*Links to Programmatic Objectives P1, and Skills Objectives S1, S2, S13*

Employ knowledge of mineral and rock formation to assess the fundamental causes and types of physical and chemical weathering

*Links to Programmatic Objectives P1, P2, P4 and P7 and Skills Objectives S1, S6, S12, and S13*

Apply knowledge of the genesis of different secondary weathering products and soils to analyze the origin and evolution of diverse landforms and associated surficial processes.

*Links to Programmatic Objectives P2, P3, P4 and P7 and Skills Objectives S1, S6, S12, and S13*

Map and interpret various soil morphological, chemical and mineralogical properties, describe and classify soil horizons, and interpret the formation of soil profiles in diverse landscapes and climate regimes.

*Links to Programmatic Objectives P2, P3, P4 and P7 and Skills Objectives S12*

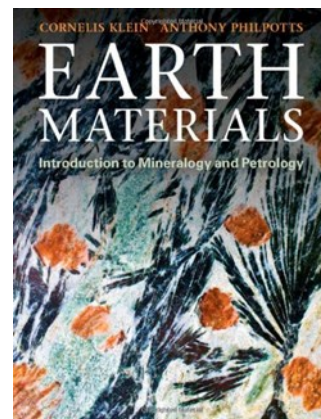
### **Proposed Textbook and Supplies:**

***Earth Materials: Introduction to Mineralogy and Petrology*, 2012**

by Cornelis Klein and Anthony Philpotts

\*\*\* or similar textbook, to be determined.

Supplemented by course pack tailored to course material.



## Expected Course Format:

The course is divided into a lecture/activity section and a laboratory section. In the lecture portion, students will cover information relevant to several topics related to Earth Materials including mineral formation and geochemistry, rock formation, the rock cycle tied to plate tectonics, radiometric age dating, weathering, and soils and geomorphology. The laboratory portion of the class provides training on skills needed to assess rocks and minerals in the field and in the laboratory, including sections focused on microscopy, hand sample analysis, field data collection, and field mapping.

## Expected Course Requirements and Grading:

|                                                    |           |                                                                 |
|----------------------------------------------------|-----------|-----------------------------------------------------------------|
| <b><i>Homework Exercises</i></b>                   | 20%       | Several homework assignments during the course of the semester. |
| <b><i>Laboratory Exercise/Module Write-ups</i></b> | 25%       | A final write-up will be required for each lab exercise.        |
| <b><i>Exams</i></b>                                | 25% total | Midterm Exam                                                    |
|                                                    | 30%       | Final Exam                                                      |

**Grading Scale:** A+ (97 -100), A (93-96), A- (90-92), B+ (87-89), B (83-86), B- (80-82), C+ (77-79), C (73-76), C- (70-72), D+ (67-69), D (63-66), D- (60-62), F (0-59)

- decimal portions will be rounded up if over 0.5, down if below 0.5

## Email / Internet Access Policy:

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## Attendance Policy:

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## Accommodation Statement:

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## **Draft Schedule of Topics:**

### **Lecture Portion:**

- Introduction to Earth Materials
- Minerals – building blocks of rocks.
- Geochemistry – analyses of rocks
- The rock cycle
  - Magma and igneous rocks
  - Metamorphic rocks
  - Sedimentary rocks and depositional environments
  - Global tectonics – plates and plumes
- Earth materials as time keepers
- Weathering of Earth Materials
  - Physical weathering
  - Chemical weathering
- Soil science
  - Formation of soils – geomorphology
  - Soil classification
  - Soils in different climates
  - Soils and landforms
  - Impacts of climate change on soils
  - Field trip based – alluvial fans, terraces, pediments, hillslopes
- Earth surface materials
  - Soil morphological properties
  - Secondary minerals

### **Laboratory Portion:**

- Igneous minerals
  - Hand specimen based
- Igneous rocks
  - Hand specimens
  - Petrographic microscope
- Magma chamber and magma differentiation
  - Quantitative exercise
- Metamorphic minerals
  - Hand specimens
- Metamorphic rocks
  - Hand specimens and thin sections
- Sedimentary Rocks (clastic and chemical)
  - Hand specimen and thin sections
- Surface materials and processes
  - Field trip based – fluvial, eolian, mass movement
- Terrestrial landforms
  - Field trip based – alluvial fans, terraces, pediments, hillslopes
- Earth surface materials
  - Soil morphological properties
  - Secondary minerals

## **PROPOSED SYLLABUS**

**COURSE:** ENVS 322L: Life and the Earth System

**Instructor:** Corinne Myers

**Email:** cemyers@unm.edu

**Office Location:**

**Office Phone:**

**Office Hours:**

**Course Credits:** 4

**Class Meeting Day(s):** MWF

**Class Time:**

**Class Location / Room:**

**Term/Semester:** Fall XX

**Course Description:** Investigation of the co-evolution of the Earth and life, including origins and evolution of life, ecology and biogeography, biogeochemical cycles, and the impact of a dynamic Earth environment on major radiations and extinctions. In-class discussions and exercises, labs, and field trips are geared towards establishing expertise in hypothesis generation, data collection, basic statistical analysis, and visualization and spatial analysis using a GIS.

**Pre-Requisites:** BIOL 123 (Biology for Health Related Sciences and Non-Majors); BIO 124L (Lab); ENVS 101 (The Blue Planet); ENVS 102L (The Blue Planet Lab); MATH 150 (Pre-Calculus Mathematics) or MATH 153 (Pre-Calculus and Trigonometry); ENVS 320L (Environmental Systems); ENVS 321L (Earth Materials)

**Co-Requisites:** None

### **Course Objectives and Student Learning Outcomes:**

When you complete this course, you will be able to do the following:

Students will be able to describe feedbacks between life the other spheres (geosphere, hydrosphere, atmosphere), including specific examples of how life impacts the abiotic Earth environment and how the abiotic environment impacts life over short and long spatiotemporal scales.

*Links to Programmatic Objectives P1, P2, P4, P8.*

Students will be able to define basic principles and concepts of the origin of life, biodiversity, ecology, and evolution. Students will be able to identify processes uniquely occurring in evolution vs. ecology and analyze the linkages between them.

*Links to Programmatic Objectives P1, P8.*

Students will be able to define ways in which human behaviors impact the biosphere. Students will be able to analyze the potential consequences of human impacts at appropriate spatiotemporal scales within both an evolutionary and ecological context.

*Links to Programmatic Objectives P1, P5, P6.*

Students will be able to apply common tools used in Environmental Science, such as interpretation of maps, graphs, figures, and statistical models to enable analysis and synthesis of data collected in the field and from online databases.

*Links to Programmatic Objectives P6, P7; Skills Objectives S2, S3, S8, S9.*

Students will be able to employ common software for scientific work, such as word processing, spreadsheet programs, presentation software, and basic data visualization and spatial analysis in a GIS.

*Links to Programmatic Objective P7; Skills Objectives S2, S3, S8, S9.*

Students will be able to search, read and report on literature related to Environmental Science, and students will be able to present this material in a concise manner (e.g. in an oral presentation and/or a written report).

Links to Programmatic Objective P7, and Skills Objectives S14, S15, S16.

Students will be able to apply scientific methods to a research question in Environmental Science, as well as explain the impact of science in their daily lives and expected careers.

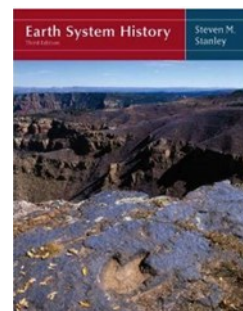
Links to Programmatic Objective P1, P4, P6, P7; Skills Objectives S2, S3, S12, S14, S15.

## Proposed Textbook and Supplies:

***Earth System History, Third Edition*, 2008**

by Steven M. Stanley (4<sup>th</sup> ed just came out Feb 2014...?)

Supplemented by course packet including relevant primary literature.



## Expected Course Format:

The course and lab are divided into five themes that highlight different aspects of the biosphere within the larger Earth system. Lectures will introduce new concepts in biology, including ecology, evolutionary theory, and biogeochemical cycling, and practice identifying, reading, and analyzing primary literature. Labs will introduce basic techniques in biological environmental science, including data collection (from fieldwork, museums, and online databases), basic statistical analysis, and visualization/spatial analysis using a GIS. Labs will enable application of these techniques in both independently (e.g., through guided exercises and short write-ups) and synthesized through a multi-week research project. Students will synthesize material by analyzing human impacts on the biosphere and other components of the Earth system in a research paper and final oral debate with classmates on consequences and strategies to mitigate these effects.

## Expected Course Requirements and Grading:

|                                                                         |                  |                                                                                           |
|-------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------------|
| <b><i>In-Class Exercises, Presentations, and Homework Exercises</i></b> | 20%              | Several homework or in-class assignments during the course of the semester.               |
| <b><i>Laboratory Exercise/Module Write-ups</i></b>                      | 20%              | Each lab is accompanied by a written exercise or write-up.                                |
| <b><i>Exams</i></b>                                                     | 20% total<br>15% | One midterm exam<br>Final Exam (Comprehensive)                                            |
| <b><i>Participation</i></b>                                             | 5%               | Evaluated on participation in activities.                                                 |
| <b><i>Research Paper and Presentation</i></b>                           | 20% total<br>10% | Research paper<br>Participation in final debate/discussion on human impacts on biosphere. |



## **Email / Internet Access Policy:**

**All students are required to have a university e-mail account.** We will be using UNM LEARN as a course tool and it requires a UNM NetID account for access. Also, I will email updates/changes to the class and reminders or help for assignments during the duration of the class. You will need to use your UNM email (or forward that email) to get these announcements. **YOU NEED TO USE UNM LEARN IN ORDER TO BE SUCCESSFUL IN THIS CLASS!**

## **Attendance Policy:**

Regular and punctual attendance is required. UNM *Pathfinder* policies apply, which in part means instructor drops based on non-attendance are possible. This policy applies regardless of the grading option you have chosen.

## **Accommodation Statement:**

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## **DRAFT SCHEDULE OF TOPICS**

### **Module 1 – Habitable planet and early life.**

#### Lecture topics:

- What is life?
- Abiotic conditions necessary to produce/sustain life
- Is the Earth unique?
- Origins and early life – great oxygenation event
- Issues of spatial and temporal scale

#### Lab topics:

- Data collection and hypothesis testing in biological sciences
- Origins and early life
- Basic statistical analysis: central tendencies, probability/distributions, correlation, t-tests

## **Module 2 – Abiotic-biotic feedbacks and nutrient cycling.**

### Lecture topics:

- Major biogeochemical cycles (C, N, P, some on Fe, S); including sources and sinks, residence times in reservoirs, historical and human perturbations to the system
- Major environmental cycles and impact on life –
  - Atmosphere/cryosphere – greenhouse/icehouse cycles, Milankovich cycles
  - Lithosphere – plate tectonics, volcanism, dynamic topography
  - Hydrosphere – ocean oxygenation and circulation
- Life's impact on the environment – build-up of oxygen (photosynthesis/respiration), biomineralization, bioturbation, weathering, erosion

### Lab topics:

- Stella biogeochemical modeling
- GIS map of nutrient sources/sinks
- Species' distribution change across Pleistocene climate changes (e.g., SERC exercise or ENM)
- Biological weathering and/or bioturbation experiment

## **Module 3 – Genealogical Hierarchy: evolution, causes/consequences of major radiations and extinctions.**

### Lecture topics:

- Genealogical individuals – genes, chromosomes, germ-line cells, organisms, demes, species, clades; linked through the transfer of information via reproduction
- Taxonomy vs. phylogeny; homology
- Species definitions (sexual vs. asexual reproduction)
- Theory of evolution
- Evolutionary mechanisms: mutation, genetic drift, gene flow, natural selection, sorting, etc.
- Speciation – descent with modification, mate recognition, sympatric, allopatric (parapatric, peripatric); factors promoting and inhibiting
- Extinction – local, regional, global, mass extinction; factors promoting or inhibiting

### Lab topics:

- Taxonomy and identification of homology
- Morphological and genetic coding and phylogenetic analysis
- Natural selection (e.g. moths selection simulation)
- Population Genetics (e.g., population change by allele combo, “mating game”)

## **Module 4 – Ecological Hierarchy: energy transfer in ecosystems, population and species ecology, biogeography.**

### Lecture topics:

Ecological individuals – proteins, somatic cells, organisms, avatars, ecosystems/communicates, biosphere/regional biota; linked through the transfer of matter and energy via interaction with the environment  
autotrophy vs. heterotrophy; trophic levels, food chains/webs  
metabolism  
environmental niches  
biotic interactions – competition, mutualism, commensalism, parasitism, etc  
dispersal – home range vs. chance events, migration, vicariance  
population ecology and life history traits  
species ecology and biogeographic traits  
impact of ecological hierarchy on evolution via natural selection

### Lab topics:

Population ecology – predator/prey interactions, density dependence/carrying capacity, life history tables; (e.g., simulation experiments)  
Species ecology – elevational vs. latitudinal diversity gradients, Earth's major biomes, niches and climate change;  
Collecting data from online scientific databases for GIS visualization and spatial analysis (maybe ENM?); basic stats  
Fieldtrip – ecosystem function and/or diversity counting; collect data for later GIS visualization and spatial analysis

## **Module 5 – Synthesis: Humans and the biosphere.**

### Lecture topics:

Challenges to biota today – climate change (ocean acidification), habitat degradation/loss, biotic invasions  
Human impacts on biosphere – over-population, over-harvest, pollution, landscape changes, introduced species  
Conservation biology – global biosphere connections, genetic bottlenecks, species extinction before discovery, effective habitat/wilderness protection, efficacy of restoration and re-wilding, policy/advocacy/ESA and other regulations

### Lab topics:

Multi-week final project: Are we headed towards a 6<sup>th</sup> mass extinction?  
In groups, review primary scientific literature, as well as policy decisions and debates on this issue; codify arguments for/against, consequences of various styles of action/inaction, etc.  
Final lab: debate and “what should we do about it” policy discussion; final write-up on consequences of inaction on the biosphere and other Earth system components

## **PROPOSED SYLLABUS**

### **COURSE:** ENVS 323L: Water in the Earth System

**Instructor:**

**Email:**

**Office Location:**

**Office Phone:**

**Office Hours:**

**Course Credits:** 4

**Class Meeting Day(s):**

**Class Time:**

**Class Location / Room:**

**Term/Semester:** Spring XX

**Course Description:** Quantitative treatment of the global hydrologic cycle and links to the broader Earth System, including precipitation, evapotranspiration, infiltration, runoff and subsurface flow; global change and hydrology; catchment and hillslope hydrology; hydrologic system-ecosystem interactions; water chemistry evolution.

**Pre-Requisites:** ENVS 321L (Earth Materials) or EPS 304L (Sedimentology and Stratigraphy); MATH 162 (Calculus I); PHYC 160 (General Physics I).

**Co-Requisites:** MATH 163 (Calculus I)

### **Course Objectives and Student Learning Outcomes:**

When you complete this course, you will be able to do the following:

Analyze, critically interpret, and evaluate (both qualitatively and quantitatively) water and energy movement and related processes in the hydrologic cycle, including evaluation of precipitation, stream flow, and groundwater data using concepts of fluid dynamics.

*Links to Programmatic Objectives P1, P2, P3, P4, P5, and P7, and Skills Objectives S1, S2, S3, S4, S5, S6, S7, S8, and S11.*

Evaluate and construct simple numerical models of water movement in Earth Systems.

*Links to Programmatic Objectives P1 and P4, and Skills Objectives S1, S2, S4, and S5.*

Describe how a changing climate may impact water quantity and quality.

*Links to Programmatic Objective P5 and Skills Objectives S1, S2, S3, S4, and S5.*

Analyze chemical constituents in water and assess evolution of the water composition.

*Links to Programmatic objectives P1, P3 and P4 and Skills Objectives S1, S3, S4, S5, S6, S8, S9, and S12.*

Students will be able to employ common software for scientific work, such as MATLAB, word processing, spreadsheet programs, and presentation software.

*Links to Programmatic Objectives P7 and Skills Objectives S1, S3, S4, S5, S7, S9 and S14.*

Students will be able to search, read and report on literature related to Hydrology.

*Links to Skills Objectives S14 and S16.*

Students will be able to explain and describe some principles of ethics in the conduct and application of science, within the academic and professional arenas.

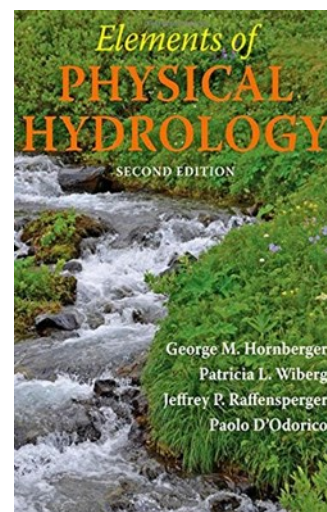
*Links to Programmatic Objective P6.*

### **Proposed Textbook and Supplies:**

***Elements of Physical Hydrology, 2nd Edition, 2014***

by George M. Hornberger, Patricia L. Wiberg, Jeffrey P. Raffensperger, and Paolo D'Ordorico

Supplemented by on-line materials and exercises.



## Expected Course Format:

The lecture portion of the class will focus on theoretical aspects of physical hydrology, including dynamics of freshwater flow throughout the Earth system and statistical techniques for analyzing data. The lab portion of the class will involve hands-on data collection and analysis from a variety of field settings and from laboratory physical and computational experiments. The lab portion will also include an introduction to MATLAB programming.

## Expected Course Requirements and Grading:

|                                                                  |           |                                                                  |
|------------------------------------------------------------------|-----------|------------------------------------------------------------------|
| <b><i>In-Class Exercise Write-ups and Homework Exercises</i></b> | 25%       | Several homework assignments during the course of the semester.  |
| <b><i>Laboratory Exercise/Module Write-ups</i></b>               | 25%       | A final write-up will be required for each of the 4 lab modules. |
| <b><i>Exams</i></b>                                              | 20% total | Midterm Exam                                                     |
|                                                                  | 25%       | Final Exam (Comprehensive)                                       |
| <b><i>Participation</i></b>                                      | 5%        | Evaluated on participation in activities.                        |

**Grading Scale:** A+ (97 -100), A (93-96), A- (90-92), B+ (87-89), B (83-86), B- (80-82), C+ (77-79), C (73-76), C- (70-72), D+ (67-69), D (63-66), D- (60-62), F (0-59)

- decimal portions will be rounded up if over 0.5, down if below 0.5



## Email / Internet Access Policy:

**All students are required to have a university e-mail account.** We will be using UNM LEARN as a course tool and it requires a UNM NetID account for access. Also, I will email updates/changes to the class and reminders or help for assignments during the duration of the class. You will need to use your UNM email (or forward that email) to get these announcements. **YOU NEED TO USE UNM LEARN IN ORDER TO BE SUCCESSFUL IN THIS CLASS!**

## Attendance Policy:

Regular and punctual attendance is required. UNM *Pathfinder* policies apply, which in part means instructor drops based on non-attendance are possible. This policy applies regardless of the grading option you have chosen.

## Accommodation Statement:

Accessibility Services (Mesa Vista Hall 2021, 277-3506) provides academic support to students who have disabilities. If you think you need alternative accessible formats for undertaking and completing coursework, you should contact this service right away to assure your needs are met in a timely manner. If you need local assistance in contacting Accessibility Services, see the Bachelor and Graduate Programs office.

## Draft Schedule of Topics (subject to change):

- 1) Intro and Land-Atmosphere Interactions
  - Water balance
  - Precipitation
  - Evapotranspiration
  - Lab: Field sampling of hydrogeologic data**
- 2) Principles of fluid dynamics
  - Forces on fluids
  - Fluid statics
  - Fluid dynamics
  - Energy Loss
  - Laminar and turbulent flows
  - LAB: Introduction to MATLAB (two sessions)**
- 3) Open channel hydraulics
  - Specific energy
  - Discharge measurements using control structures
  - Bed roughness
  - Channel flow equations
  - Measuring flow in natural channels
  - LAB: Stream Gaging (possible field work)**
  - LAB: Geochemical sampling and analysis of surface water**
- 4) Catchment hydrology
  - The hydrograph
  - Flood routing
  - Flood frequency analysis
  - LAB: Muskingum Flood Routing and (or) Flow Duration Curves in MATLAB**
- 5) Groundwater hydraulics
  - Darcy's Law
  - Steady groundwater flow
  - LAB: Groundwater Flow Model ("Antfarm")**
- 6) Groundwater hydrology
  - Flow nets
  - Regional groundwater flow
  - Well hydrographs
  - LAB: Groundwater Flow Models in MATLAB**
- 7) Water Chemistry in Natural Systems
  - Geochemical sampling
  - Geochemical evolution of surface and groundwaters
  - LAB: Geochemical modeling and sampling labs (two labs)**
  - LAB: Contaminant Transport lab (MATLAB)**
- 8) Water in the unsaturated zone
  - Forces
  - Capillary pressure head and the moisture characteristic
  - Vertical water movement
  - Equilibrium profile above a water table
  - Infiltration
  - Evapotranspiration in the unsaturated zone
  - LAB: Soil Moisture and Vadose Zone measurements**
  - LAB: Numerical analysis of 1D Vadose zone flow**
- 9) Catchment hydrology
  - Streamflow hydrographs
  - Runoff separation
  - Catchment models
  - LAB: Synthesis – post-fire flooding**

## **PROPOSED SYLLABUS**

### **COURSE:** ENVS 324: Earth's Climatic Environment

**Instructor:**

**Email:**

**Office Location:**

**Office Phone:**

**Office Hours:**

**Course Credits:** 3

**Class Meeting Day(s):**

**Class Time:**

**Class Location / Room:**

**Term/Semester:** Fall XX

**Course Description:** In this course, you will gain a basic process-based understanding of Earth's climate system. We will practice physics-based problem-solving skills and apply scientific concepts related to understanding the Earth's climatic system. We will evaluate the magnitude and mechanisms of observed and projected climate change, and discuss issues related to the current climate (e.g., El Niño, drought, global warming, etc).

**Pre-Requisites:** ENVS 323L; MATH 163 (Calculus II); PHYC 160 (General Physics I)

**Co-Requisites:** None

### **Course Objectives and Student Learning Outcomes:**

When you complete this course, you will be able to do the following:

Identify the magnitude and mechanisms of observed and projected climate change through analysis of climate data and climate models

*Links to Programmatic Learning Outcome P5 and Skill Objectives S2, S3, S5*

Solve quantitative problems describing flows of energy, water and wind through the climate system using calculus and basic physical principles

*Links to Programmatic Learning Outcome P1, and Skill Objectives S1, S4*

Describe and interpret current issues in climate science (Global warming, Drought, El Nino) using physical principles

*Links to Programmatic Learning Outcome P6 and Skill Objectives S16*

Define central concepts in atmospheric science and use these concepts to diagnose large-scale physical processes that determine atmospheric temperature, humidity, wind and precipitation

*Links to Programmatic Learning Outcome P7 and Skill Objectives S1, S4*

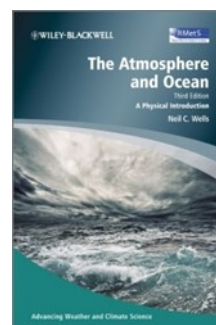
Be able to define and explain mechanisms that drive atmospheric water and energy cycles

*Links to Programmatic Learning Outcome P4 and Skill Objectives S1*

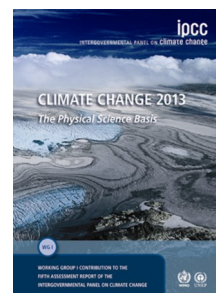
### **Proposed Textbook and Supplies:**

***The Atmosphere and Ocean: A Physical Introduction, Third Edition, 2012***

by Neil C. Wells



**IPCC, Summary for Policymakers, 5<sup>th</sup> Assessment Report**



Supplemented by online course materials.

## Expected Course Format:

The course will be conducted using a combination of lecture and homework exercises. Work will include:

**Readings from the texts** (plus occasional handouts from the instructor)

**Homework assignments:**

Usually assigned on Friday, due at 11 am the following Wednesday

**Exams:**

3 midterms, 1 final exam, in class.

## Expected Course Requirements and Grading:

|                                  |           |                                                                 |
|----------------------------------|-----------|-----------------------------------------------------------------|
| <b><i>Homework Exercises</i></b> | 40%       | Several homework assignments during the course of the semester. |
| <b><i>Exams</i></b>              | 35% total | Midterm exams (3 exams during semester)                         |
|                                  | 25%       | Final Exam (Comprehensive)                                      |

**Grading Scale:** A+ (97 -100), A (93-96), A- (90-92), B+ (87-89), B (83-86), B- (80-82), C+ (77-79), C (73-76), C- (70-72), D+ (67-69), D (63-66), D- (60-62), F (0-59)

- decimal portions will be rounded up if over 0.5, down if below 0.5

\*\* I reserve the right to modify the strict point system for grading.

## Email / Internet Access Policy:

**All students are required to have a university e-mail account.** We will be using UNM LEARN as a course tool and it requires a UNM NetID account for access. Also, I will email updates/changes to the class and reminders or help for assignments during the duration of the class. You will need to use your UNM email (or forward that email) to get these announcements. **YOU NEED TO USE UNM LEARN IN ORDER TO BE SUCCESSFUL IN THIS CLASS!**

## Accommodation Statement:

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## Draft Schedule of Topics and Course Outline:

| <u>week #</u> | <u>topic</u>                                                                       | <u>chapter from text</u> |
|---------------|------------------------------------------------------------------------------------|--------------------------|
| 1             | Introduction / Energy in the Climate System                                        | 1                        |
| 2             | Solar Energy and its Variability                                                   | 1                        |
| 3             | Structure of Ocean and Atmosphere                                                  | 2                        |
| 4             | Radiation, Temperature and Stability                                               | 3                        |
| 5             | Review / Midterm / Intro to Water in the Atmosphere<br><b>Midterm #1 (Ch. 1-3)</b> |                          |
| 6             | Clouds and Precipitation                                                           | 4                        |
| 7             | Global Energy and Water Budgets                                                    | 5                        |
| 8             | Surface Energy Budgets / Vegetation, Topography and Climate                        | 5                        |
| 9             | Review / Midterm / Intro to Winds and Currents<br><b>Midterm #2 (Ch. 4-5)</b>      |                          |
| 10            | Winds and Currents 6                                                               |                          |
| 11            | Ocean/Atmosphere Interaction and Climate Dynamics                                  | 7                        |
| 12            | Fully Coupled Climate System: Atmosphere, Land, Ocean, Cryosphere                  | 8                        |
| 13            | Review / Midterm / Intro to Climate Change<br><b>Midterm #3 (Ch. 6-8)</b>          | 10 / IPCC                |
| 14            | Climate Variability and Change in the Last 2000 Years                              | 10 / IPCC                |
| 15            | Future Climate Change Projections                                                  | IPCC                     |

## **PROPOSED SYLLABUS**

### **COURSE: ENVS 430L: Advanced Environmental Science**

**Instructor:**

**Email:**

**Office Location:**

**Office Phone:**

**Office Hours:**

**Course Credits:** 4

**Class Meeting Day(s):**

**Class Time:**

**Class Location / Room:**

**Term/Semester:** Spring XX

**Course Description:** The course is designed as a capstone experience for ENVS majors and includes work in the field, laboratory, and classroom. We will divide into groups and focus research on different projects related to Environmental Science.

**Pre-Requisites:** ENVS 324

**Co-Requisites:** None

### **Course Objectives and Student Learning Outcomes:**

When you complete this course, you will be able to do the following:

Students will be able to search, read, and synthesize literature related to Environmental Science, and be able to present this material in a written and oral format.

Links to Programmatic Objectives P7 and Skills Objectives S14, S15, S16.

Students will be able to apply quantitative tools and models to address complex problems in Environmental Science.

Links to Programmatic Objectives P4 and P7, and Skills Objectives S1-S7.

Students will be able to apply common tools used in Environmental Science, such as interpretation of maps, graphs, figures, and box models to enable analysis and synthesis of data collected in the field.

Links to Programmatic objectives P2, P3, and P7 and Skills Objectives S1, S8, S9, S10, S11, S12 and S13.

Students will be able to employ common software for scientific work, such as word processing, spreadsheet programs, and presentation software.

Links to Skills Objectives S3, S10 and S15.

Students will be able to devise and execute an appropriate task plan to solve a complex problem in Environmental Science.

Links to Programmatic Objective P7.

Students will be able to apply principles of ethics in the conduct and application of science, within the academic and professional arenas.

Links to Programmatic Objective P6.

### **Proposed Textbook and Supplies:**

No textbook required. All materials will be available on UNM Learn or handed out.

Useful resources:

*Introduction to Environmental Engineering*, by GM Masters

*Applied Hydrogeology*, by CW Fetter

*Global Environment: Water, Air and Geochemical Cycles*, by Berner and Berner

*Energy: Perspectives, Problems and Prospects*, by MB McElroy

*Selected USGS, other Federal reports, NMED, and NMB regional studies*

## Expected Course Format:

The class meets twice weekly in the classroom for lectures, presentations by students in the course, as well as visiting environmental professionals. Class periods are also used for project introduction, progress reports, and exercise review. Lab periods (one afternoon per week) are utilized for project team work, experiential learning activities, including trips to locations in the Albuquerque area for field exercises or adjourn to analytical laboratories on campus for hands-on exercises working on materials we have collected in the field. Exercises will often be performed by teams, but students are responsible for turning in their own, individual materials and contributing appropriately to team efforts. Other assignments (some requiring reading or web access) will be worked on either in groups or independently (as specified). Materials are turned in weekly. There will be three all-day field trips. Attendance on 2 of the 3 is mandatory.

## Expected Course Requirements and Grading:

Graded aspects of the course consist of class participation, weekly exercises, written materials, and oral presentations.

|                                                     |     |
|-----------------------------------------------------|-----|
| <b><i>Short presentations</i></b>                   | 25% |
| <b><i>Homework assignments and short papers</i></b> | 25% |
| <b><i>Participation</i></b>                         | 15% |
| <b><i>Final Project</i></b>                         | 35% |

**Grading Scale:** A+ (97 -100), A (93-96), A- (90-92), B+ (87-89), B (83-86), B- (80-82), C+ (77-79), C (73-76), C- (70-72), D+ (67-69), D (63-66), D- (60-62), F (0-59)

*- decimal portions will be rounded up if over 0.5, down if below 0.5*

## Email / Internet Access Policy:

**All students are required to have a university e-mail account.** We will be using UNM LEARN as a course tool and it requires a UNM NetID account for access. Also, I will email updates/changes to the class and reminders or help for assignments during the duration of the class. You will need to use your UNM email (or forward that email) to get these announcements. **YOU NEED TO USE UNM LEARN IN ORDER TO BE SUCCESSFUL IN THIS CLASS!**

## Attendance Policy:

The class is participatory, and attendance is required unless you have discussed this with the instructor and we have a mutual agreement BEFOREHAND.

## Accommodation Statement:

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## Draft Course Themes:

Write to the Top! You will write short items as well as long. You should write in a professional style unless otherwise indicated.

Am I making myself clear?: You will speak/present to the class.

Walk the walk and talk the talk: You will make and record measurements and observations in a professional manner.

What's going on?: Project-based learning. Background, measurements, analyze, interpret, model, summarize, present.

Professional Development: Learning the business and ethics of Environmental Science. We will have invited speakers as part

**Current user: ctorres / Comments (7) / Form Transaction Log**  
**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1691

Fields marked with \* are required

Name of Initiator: Brian Vineyard Email: [vineyard@unm.edu](mailto:vineyard@unm.edu) Phone Number: 505 277-2140 Date: 10-05-2015

Associated Forms exist?\* Yes Initiator's Title\* Sr Academic Advisor: Arts Sciences Advisement

Faculty Contact\* Laura Crossey

Administrative Contact\* Brian Vineyard

Department\* EPS

Admin Email\* [vineyard@unm.edu](mailto:vineyard@unm.edu)

Branch

Admin Phone\* 639-2096

Proposed effective term

Semester Fall Year 2016

**Course Information**

Select Appropriate Program\* Undergraduate Degree Program

Name of New or Existing Program\* Environmental Science Minor

Select Category \* Minor Degree Type Undergraduate

Select Action Revision

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[ENVS BS 2016-17 - Minor.pdf](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

[REGISTRAR'S NOTE: SEE ATTACHMENT BELOW FOR FOUR-YEAR DEGREE MAP, AND REASON FOR REQUEST.]

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[2016-17 Environmental Science Curriculum Redesign proposal.pdf](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[Approve and Sign Off](#)[Send back to Initiator \(Brian Vineyard\)  
Comment on this Form](#)[Committee Review](#)

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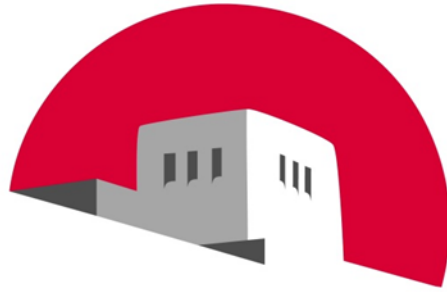
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## **Minor Study Requirements**

### **Minor in Environmental Science**

A total of at least 18 credit hours distributed as follows:

1. ENVS 101 & 102L (or EPS 101 & 105L), and ENVS 320L.
  2. Plus at least 10 additional credit hours selected from ENVS 315, 321L, 322L, 323L, 324, or 430L; EPS 201L, 251, 333, 352, 410, 415, 439, 455L, 462, 476, 481L, or 485L; GEOG 381L; or other approved courses. Only one course numbered 299 or below may count toward this requirement.
-



# THE UNIVERSITY *of* NEW MEXICO

COLLEGE *of*  
ARTS & SCIENCES

*Department of Earth & Planetary Sciences*



# **Environmental Science Curriculum Redesign**

**proposed for 2016-17 academic year**

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- 6. Proposed new ENVS Major and Minor requirements**
- 7. B.S. in Environmental Science: College Algebra Ready - Four Year Roadmap**
- 8. B.S. in Environmental Science: Learning Outcomes Matrix**
- 9. Proposed Syllabi**

|                  |                                                                  |
|------------------|------------------------------------------------------------------|
| <b>ENVS 315</b>  | <b>Statistics and Data Analysis (Replaces EPS 428 &amp; 433)</b> |
| <b>ENVS 320L</b> | <b>Environmental Systems (Replaces ENVS 330)</b>                 |
| <b>ENVS 321L</b> | <b>Earth Materials and Critical Zone Geology</b>                 |
| <b>ENVS 322L</b> | <b>Life and the Earth System</b>                                 |
| <b>ENVS 323L</b> | <b>Water in the Earth System</b>                                 |
| <b>ENVS 324</b>  | <b>Earth's Climatic Environment (Replaces EPS 436)</b>           |
| <b>ENVS 430L</b> | <b>Advanced Environmental Science (lab officially added)</b>     |

Assembled by:

Joseph Galewsky  
Gary Weissmann  
David Gutzler  
Brian Vineyard

February 2015 to September 2015

## INTRODUCTION

The Earth & Planetary Sciences (EPS) Department proposes a major revision to its B.S. degree program in Environmental Science (ENVS), with corresponding revisions to the ENVS undergraduate minor. The ENVS major was initiated in 2000 within the EPS Department to complement its eponymous B.S. and B.A. majors that emphasize field geology. ENVS was designed to "incorporate quantitative studies of the various interactions between the solid earth, oceans, atmosphere and biological processes taking place" within the whole Earth system. Since the implementation of ENVS, the degree program has grown to numerical parity with the EPS B.S. program: our most recent numbers indicate 195 declared ENVS majors and 148 declared EPS majors. ENVS offers one of the most popular physical science class in the A&S core curriculum (ENVS 101, The Blue Planet), which enrolled 1459 students in AY 2014-15. As we had hoped, ENVS graduates have moved into a very broad spectrum of career activities, ranging from graduate studies in the "hard sciences" to professional pursuits in the field of environmental sciences or in other areas, such as business, law and journalism. The ENVS curriculum is a success.

ENVS was developed 15 years ago with no new resources from the college. Existing courses were organized into the best curriculum we could cobble together, using an extensive list of groups of classes to loosely organize a course of study. The EPS department's instructional resources were stretched to accommodate just two new classes that formed the only upper division requirements for the new major. Given the success of the major, the addition of new faculty with degree-related expertise within the department, and the experience we have gained with the major over the past 15 years, we are now in a position to undertake a major revision to address aspects of the ENVS curriculum that need augmentation. We propose to develop a much firmer, objectives-driven sequence of required upper division courses that will explicitly carry the ENVS prefix in the UNM course catalog. Several of these courses are newly developed to serve ENVS majors; several others are adaptations of existing, popular EPS upper division courses now taken by most ENVS majors. We propose relatively modest changes to the ENVS minor that are consistent with the redesign of the major.



From the Student and Advisement perspective, this new curriculum will greatly help with long term degree planning and, as a related consequence, likely shorten student's average time to completion. Currently, with the structure of our Environmental Science curriculum, students know that they are required to complete 30 hours total from the seven different groups, but the sub-requirement of at least 6 hours within 4 different groups often proves to be very challenging to plan for past the current semester. The eventual selections made by many students, based largely on only the remaining groups needed, and offerings available, can lead to a lack of full exposure to what this new curriculum considers core concepts of this degree. This currently existing shortcoming is being rectified with the revised structure of our new curriculum designed to closely match our current Earth & Planetary Sciences degree format in that it has a more extensive required degree core sequence, which is composed of courses specifically offered in designated terms. We are however still asking for the completion of 12 additional hours of major electives (the same as EPS), which maintains the added benefit our degrees possess by allowing students to further study topics of added personal interest to them beyond the core concepts, and fully utilize the vast knowledge and experience provided by the faculty. Furthermore, this new degree core structure will also allow ENVS majors the extensive cohort style learning benefits currently available to all EPS majors.

## **Faculty Workload and Budgetary Impacts**

In order to cover the new classes, the EPS faculty members have had several detailed discussions about how to arrange our regular teaching rotations. Recently hired faculty members, Corrine Myers and Lindsay Lowe Worthington, have already committed to teaching the new ENVS 322L and ENVS321L courses, respectively, as part of their regular teaching rotations. In order to free up additional faculty time to support the new curriculum, we propose to sunset the following classes:

ENVS 330 (Environmental Systems), replaced by ENVS 320L (Environmental Systems).

EPS 428 (Applied Mathematics for Earth and Environmental Sciences) and  
EPS 433 (Statistics and Data Analysis), replaced by ENVS 315 (Statistics and Data Analysis)

EPS 436 (Climate Dynamics), replaced by ENVS 324 (Earth's Climatic Environment)

The EPS faculty have identified current faculty members who will teach the new courses, no new faculty lines are required to cover the new curriculum.

In order to support the new laboratory components of the curriculum, we are requesting an additional 2 full time (20 hr/week) teaching assistants. This will allow us to support the new labs without compromising our current introductory lab offerings for non-majors, which are currently already oversubscribed. If no new TA resources are available, the new curriculum may still be supported by reducing the number of introductory labs in order to support our ENVS majors.

---

## **Bachelor of Science in Environmental Science**

### **Required Courses**

ENVS 101, 102L (or EPS 101, 105L), 315, 320L, 321L, 322L, 323L, 324, 430L, EPS 401 & 490 and 12 additional credit hours in Earth and Planetary Sciences (excluding 493 and 495) or other approved courses (of which no more than 4 credit hours may be below 300).

**(Total = 44 credit hours)**

### **Supporting Math/Science Required Courses**

CHEM 121/123L, 122/124L; MATH 162, 163; PHYC 160, 161; BIOL 123/124L (or higher), CS 151L (or 152L), and 3 additional credit hours from: Chemistry (above 124L), Mathematics (above 163), Physics (above 161), Biology (above 124L), Astronomy (270 or above) or, with permission, from selected Geography or Engineering courses. An additional advanced math class selected from: 264, 311, 314, or 316 is strongly encouraged.

**(Total = 32 credit hours)**

ENGL 219 or 220 or 290 is required.

No minor study is required for students completing the B.S. program, although an optional minor or second major may be selected.

---

## **Minor Study Requirements**

### **Minor in Environmental Science**

A total of at least 18 credit hours distributed as follows:

1. ENVS 101 & 102L (or EPS 101 & 105L), and ENVS 320L.

Plus at least 10 additional credit hours selected from ENVS 315, 321L, 322L, 323L, 324, or 430L; EPS 201L, 251, 333, 352, 410, 415, 439, 455L, 462, 476, 481L, or 485L; GEOG 381L; or other approved courses. Only one course numbered 299 or below may count toward this requirement.

| Course Subject and Title                       | Credit Hrs. | Major    | Minor or 2nd Major | Core      | Upper Div. | Min. Grade | Notes |
|------------------------------------------------|-------------|----------|--------------------|-----------|------------|------------|-------|
| <b>Semester One:</b>                           |             |          |                    |           |            |            |       |
| ENVS 101/102L or EPS 101/105L                  | 4           | 4        | 4                  | 4         |            | C          |       |
| BIOL 123/124L                                  | 4           | 4        |                    |           |            | C          |       |
| MATH 121                                       | 3           |          | 3                  |           |            | C          |       |
| 1st English Composition                        | 3           |          | 3                  |           |            | C          |       |
| Freshman Academic Choice                       | 3           |          |                    |           |            | CR         |       |
| <b>Total:</b>                                  | <b>17</b>   | <b>8</b> | <b>0</b>           | <b>10</b> | <b>0</b>   |            |       |
| <b>Advisement: How to use the Degree Audit</b> |             |          |                    |           |            |            |       |
| <i>(anytime after the 10th week)</i>           |             |          |                    |           |            |            |       |

|                                                            |           |           |          |          |          |   |  |
|------------------------------------------------------------|-----------|-----------|----------|----------|----------|---|--|
| <b>Semester Three:</b>                                     |           |           |          |          |          |   |  |
| ENVS 320L                                                  | 4         | 4         |          | 4        |          | C |  |
| MATH 162                                                   | 4         | 4         |          |          |          | C |  |
| PHYC 160                                                   | 3         | 3         |          |          |          | C |  |
| CHEM 122/124L                                              | 4         | 4         |          |          |          | C |  |
| <b>Total</b>                                               | <b>15</b> | <b>15</b> | <b>0</b> | <b>0</b> | <b>4</b> |   |  |
| <b>Transferred into the College of Arts &amp; Sciences</b> |           |           |          |          |          |   |  |
| <i>(once semester grades are in)</i>                       |           |           |          |          |          |   |  |

|                              |           |           |          |          |           |   |          |
|------------------------------|-----------|-----------|----------|----------|-----------|---|----------|
| <b>Semester Five:</b>        |           |           |          |          |           |   |          |
| ENVS 315                     | 3         | 3         |          | 3        |           | C |          |
| ENVS 322L                    | 4         | 4         |          | 4        |           | C |          |
| ENVS Elective                | 3         | 3         |          | 3        |           | C |          |
| Supportive Elective          | 3         | 3         |          | 3        |           | C |          |
| Core Requirement             | 3         |           | 3        |          |           | C | See List |
| <b>Total</b>                 | <b>16</b> | <b>13</b> | <b>0</b> | <b>3</b> | <b>13</b> |   |          |
| <b>Visit Career Services</b> |           |           |          |          |           |   |          |

|                                                         |           |          |          |          |          |    |                     |
|---------------------------------------------------------|-----------|----------|----------|----------|----------|----|---------------------|
| <b>Semester Seven:</b>                                  |           |          |          |          |          |    |                     |
| ENVS 324                                                | 3         | 3        |          | 3        |          | C  |                     |
| ENVS Elective                                           | 3         | 3        |          | 3        |          | C  |                     |
| Core Requirement                                        | 3         |          | 3        |          |          | C  | See List            |
| Core Requirement                                        | 3         |          | 3        |          |          | C  | See List            |
| Upper-Division Elective                                 | 3         |          |          | 3        |          | CR | EPS 493 Recommended |
| <b>Total</b>                                            | <b>15</b> | <b>6</b> | <b>0</b> | <b>6</b> | <b>9</b> |    |                     |
| <b>Advisement: Departmental Check-In / Senior Visit</b> |           |          |          |          |          |    |                     |

| Course Subject and Title                        | Credit Hrs. | Major    | Minor or 2nd Major | Core     | Upper Div. | Min. Grade | Notes |
|-------------------------------------------------|-------------|----------|--------------------|----------|------------|------------|-------|
| <b>Semester Two:</b>                            |             |          |                    |          |            |            |       |
| CHEM 121/123L                                   | 4           | 4        |                    | 4        |            | C          |       |
| CS 151L or 152L                                 | 3           | 3        |                    |          |            | C          |       |
| MATH 153                                        | 5           |          |                    |          |            | C          |       |
| 2nd English Composition                         | 3           |          |                    | 3        |            | C          |       |
| <b>Total:</b>                                   | <b>15</b>   | <b>7</b> | <b>0</b>           | <b>7</b> | <b>0</b>   |            |       |
| <b>Advisement: Enhanced Degree Audit skills</b> |             |          |                    |          |            |            |       |

|                                                    |           |           |          |          |          |   |  |
|----------------------------------------------------|-----------|-----------|----------|----------|----------|---|--|
| <b>Semester Four:</b>                              |           |           |          |          |          |   |  |
| ENVS 321L                                          | 4         | 4         |          |          | 4        | C |  |
| MATH 163                                           | 4         | 4         |          |          |          | C |  |
| PHYC 161                                           | 3         | 3         |          |          |          | C |  |
| ENGL 219 or 220                                    | 3         | 3         |          | 3        |          | C |  |
| Second Language                                    | 3         |           |          | 3        |          | C |  |
| <b>Total</b>                                       | <b>17</b> | <b>14</b> | <b>0</b> | <b>6</b> | <b>4</b> |   |  |
| <b>Advisement: Attend Departmental Orientation</b> |           |           |          |          |          |   |  |
| <i>(within the 4th to 12th week)</i>               |           |           |          |          |          |   |  |

|                                                            |           |           |          |          |           |   |          |
|------------------------------------------------------------|-----------|-----------|----------|----------|-----------|---|----------|
| <b>Semester Six:</b>                                       |           |           |          |          |           |   |          |
| ENVS 323L                                                  | 4         | 4         |          |          | 4         | C |          |
| ENVS Elective                                              | 3         | 3         |          |          | 3         | C |          |
| ENVS Elective                                              | 3         | 3         |          |          | 3         | C |          |
| Core Requirement                                           | 3         |           |          | 3        |           | C | See List |
| Core Requirement                                           | 3         |           |          | 3        |           | C | See List |
| <b>Total</b>                                               | <b>16</b> | <b>10</b> | <b>0</b> | <b>6</b> | <b>10</b> |   |          |
| <b>Complete Graduation Workshop &amp; Apply for degree</b> |           |           |          |          |           |   |          |
| <b>Advisement: Departmental Check-In</b>                   |           |           |          |          |           |   |          |
| <i>(after 4th week)</i>                                    |           |           |          |          |           |   |          |

|                                                                                                    |            |           |          |           |           |    |                     |
|----------------------------------------------------------------------------------------------------|------------|-----------|----------|-----------|-----------|----|---------------------|
| <b>Semester Eight:</b>                                                                             |            |           |          |           |           |    |                     |
| ENVS 430L                                                                                          | 4          | 4         |          |           | 4         | C  |                     |
| EPS 401                                                                                            | 1          | 1         |          |           | 1         | C  |                     |
| EPS 490                                                                                            | 1          | 1         |          |           | 1         | C  |                     |
| Upper-Division Elective                                                                            | 3          |           |          |           | 3         | CR | EPS 495 Recommended |
| <b>Additional hours may be needed this term for scholarship or discounted tuition requirements</b> |            |           |          |           |           |    |                     |
| <b>Total</b>                                                                                       | <b>9</b>   | <b>6</b>  | <b>0</b> | <b>0</b>  | <b>9</b>  |    |                     |
| <b>Advisement: Senior Visit</b>                                                                    |            |           |          |           |           |    |                     |
| <b>Visit Graduation Fair</b>                                                                       |            |           |          |           |           |    |                     |
| <b>Degree Total</b>                                                                                | <b>120</b> | <b>79</b> | <b>0</b> | <b>38</b> | <b>49</b> |    |                     |

\*No minor study is required for students completing the B.S. program, although an optional minor or second major may be selected.

| Learning Outcome/objective                                                                                                                                                                 | ENVS CORE CLASSES                                     |                                                       |                                                                            |                                                                |                                                           |                                                  |                                                                                  |                                                          |                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                            | The Blue Planet<br>(ENVS 101)                         | The Blue Planet<br>Lab (ENVS 102L)                    | Fall<br>ENVS 320L (4):<br>Environmental<br>Systems (*formerly<br>ENVS 330) | Spring<br>ENVS 321L (4):<br>Earth Materials /<br>Critical Zone | Fall<br>ENVS 322L (4): Life<br>and the Earth<br>Systems   | Fall<br>ENVS 315 Statistics<br>in Earth Sciences | Spring<br>ENVS 323L (4):<br>Water in the Earth<br>System                         | Fall<br>ENVS 324 (3):<br>Earth's Climatjc<br>Environment | Spring<br>ENVS 430L: Ad-<br>vanced Environ-<br>mental Systems /<br>Environmental<br>Field Methods |
| <b>Pre-Requisites</b>                                                                                                                                                                      | 3<br>None                                             | 1                                                     | 4<br>ENVS 101/102 OR EPS<br>101/105L; MATH 121                             | 4<br>ENVS 320L; CHEM<br>121/122L; MATH 150<br>OR MATH 153      | 4<br>ENVS 321L; MATH 150<br>OR MATH 153; BIOL<br>123/124L | 3                                                | 4<br>ENVS321L OR EPS304L;<br>MATH 162; PHYC 160;<br>CS151L; ENVS 315<br>MATH 163 | 3<br>ENVS323L; MATH 163;<br>PHYC 160                     | 4<br>ENVS 324                                                                                     |
| <b>Co-Requisites</b>                                                                                                                                                                       | None                                                  |                                                       |                                                                            |                                                                |                                                           | MATH 162                                         |                                                                                  |                                                          |                                                                                                   |
| <b>CLASSES YOU SHOULD BE TAKING</b>                                                                                                                                                        | MATH 121 or MATH<br>150 or MATH 153;<br>CHEM 121/123L | MATH 121 OR MATH<br>150 OR MATH 153;<br>CHEM 121/123L | CHEM 122/124L                                                              | MATH 162                                                       | PHYC 160                                                  |                                                  | MATH 163                                                                         |                                                          |                                                                                                   |
|                                                                                                                                                                                            | Staff                                                 |                                                       | Weissmann<br>Scuderi<br>Schmandt                                           | Fischer<br>Worthington-Lowe<br>Meyer                           | Myers<br>Scuderi                                          | Gutzler<br>Galewsky<br>Myers                     | Weissmann<br>Galewsky                                                            | Gutzler<br>Fawcett                                       | Crossey                                                                                           |
| P1. Students will be able to evaluate conservation of mass, momentum and energy transformations in Earth's Systems                                                                         | Introduced                                            | Introduced                                            | Practiced                                                                  | Practiced                                                      | Practiced                                                 |                                                  | Practiced                                                                        | Mastered -<br>Evaluated                                  |                                                                                                   |
| P2. Students will be able to analyze the role of Earth Materials (rocks and minerals) and Earth Structure (plate tectonics) in Earth Systems.                                              | Introduced                                            | Introduced                                            | Practiced                                                                  | Practiced                                                      | Practiced                                                 |                                                  | Practiced                                                                        |                                                          | Mastered -<br>Evaluated                                                                           |
| P3. Students will be able to evaluate a landscape to infer active and past processes and current and past climates.                                                                        |                                                       |                                                       | Introduced                                                                 | Practiced                                                      |                                                           |                                                  | Practiced                                                                        |                                                          | Mastered -<br>Evaluated                                                                           |
| P4. Students will be able to evaluate interactions between different spheres (Atmosphere, hydrosphere, biosphere, geosphere)                                                               | Introduced                                            | Introduced                                            | Practiced                                                                  | Practiced                                                      | Practiced                                                 |                                                  | Practiced                                                                        | Practiced                                                | Mastered -<br>Evaluated                                                                           |
| P5. Students will be able to evaluate atmospheric processes and impacts of global climate change on atmospheric systems.                                                                   | Introduced                                            | Introduced                                            | Practiced                                                                  | Practiced                                                      | Practiced                                                 |                                                  | Practiced                                                                        | Mastered -<br>Evaluated                                  |                                                                                                   |
| P6. Students will be able to evaluate case studies on environmental and scientific ethics and be able to define ethical behavior in science.                                               |                                                       |                                                       | Introduced                                                                 | Practiced                                                      | Practiced                                                 | Practiced                                        | Practiced                                                                        | Practiced                                                | Mastered -<br>Evaluated                                                                           |
| P7. Students will be able to apply the scientific method to analyze a problem in Environmental Sciences.                                                                                   | Introduced                                            | Introduced                                            | Practiced                                                                  | Practiced                                                      | Practiced                                                 | Practiced                                        | Practiced                                                                        | Practiced                                                | Mastered -<br>Evaluated                                                                           |
| P8. Students will be able to analyze the impact of the biosphere, through the process of evolution and ecology, on the Earth System.                                                       | Introduced                                            | Introduced                                            | Practiced                                                                  |                                                                | Practiced/<br>Mastered - Evalu-                           |                                                  |                                                                                  |                                                          | Mastered -<br>Evaluated                                                                           |
| <b>Skills:</b>                                                                                                                                                                             |                                                       |                                                       |                                                                            |                                                                |                                                           |                                                  |                                                                                  |                                                          |                                                                                                   |
| <b>Computational Skills:</b>                                                                                                                                                               |                                                       |                                                       |                                                                            |                                                                |                                                           |                                                  |                                                                                  |                                                          |                                                                                                   |
| S1. Students will be able to apply algebraic equations to solve Environmental Science problems.                                                                                            | Introduced                                            | Introduced                                            | Introduced                                                                 | Practiced                                                      |                                                           | Practiced                                        | Practiced                                                                        | Practiced                                                | Mastered -<br>Evaluated                                                                           |
| S2. Students will be able to apply basic statistics to analyze a data set.                                                                                                                 | Introduced                                            | Introduced                                            | Introduced                                                                 | Practiced                                                      | Practiced                                                 | Practiced/<br>Mastered - Evalu-                  | Practiced                                                                        | Practiced                                                | Practiced                                                                                         |
| S3. Students will be able to evaluate and generate data for use in time series and geospatial analysis.                                                                                    |                                                       |                                                       | Introduced                                                                 |                                                                | Practiced                                                 | Practiced                                        | Practiced                                                                        | Practiced                                                | Mastered -<br>Evaluated                                                                           |
| S4. Students will be able to solve derivatives and integrals as related to Environmental Sciences, and evaluate differential equations analytically or numerically.                        |                                                       |                                                       | Introduced                                                                 | Practiced                                                      |                                                           |                                                  | Practiced                                                                        | Practiced                                                | Mastered -<br>Evaluated                                                                           |
| S5. Students will be able to write equations and evaluate fluxes in an Earth system using finite difference solutions.                                                                     |                                                       |                                                       | Introduced                                                                 |                                                                |                                                           |                                                  | Practiced                                                                        |                                                          | Mastered -<br>Evaluated                                                                           |
| S6. Students will be able to apply and evaluate geochemical reactions in a natural system using geochemical modeling software.                                                             |                                                       |                                                       | Introduced                                                                 | Practiced                                                      |                                                           |                                                  | Practiced                                                                        |                                                          | Mastered -<br>Evaluated                                                                           |
| S7. Students will be able to demonstrate proficiency in using 3D analysis and visualization software.                                                                                      |                                                       |                                                       |                                                                            | Introduced                                                     |                                                           |                                                  | Practiced                                                                        |                                                          | Mastered -<br>Evaluated                                                                           |
| <b>GIS skills:</b>                                                                                                                                                                         |                                                       |                                                       |                                                                            |                                                                |                                                           |                                                  |                                                                                  |                                                          |                                                                                                   |
| S8. Students will be able to download data from a reliable source and create relevant maps using the data.                                                                                 |                                                       |                                                       | Introduced                                                                 |                                                                | Practiced                                                 | Practiced                                        | Practiced                                                                        | Practiced                                                | Mastered -<br>Evaluated                                                                           |
| S9. Students will be able to place spatial data into a GIS database.                                                                                                                       |                                                       |                                                       | Introduced                                                                 |                                                                | Practiced                                                 | Practiced                                        | Practiced                                                                        |                                                          | Mastered -<br>Evaluated                                                                           |
| S10. Students will be able to make measurements of slope, aspect, and gradients using GIS tools, and they will be able to create derivative maps (e.g., drainage basins delineation, etc). |                                                       | Introduced                                            | Introduced                                                                 |                                                                |                                                           | Practiced                                        | Practiced                                                                        |                                                          | Mastered -<br>Evaluated                                                                           |
| <b>Field methods:</b>                                                                                                                                                                      |                                                       |                                                       |                                                                            |                                                                |                                                           |                                                  |                                                                                  |                                                          |                                                                                                   |
| S11. Students will be able to produce a detailed map of a study site and place this into a GIS format.                                                                                     |                                                       |                                                       | Introduced                                                                 |                                                                |                                                           |                                                  | Practiced                                                                        |                                                          | Mastered -<br>Evaluated                                                                           |
| S12. Students will be able to follow protocols for acquiring field data (e.g., geochemical protocols, water level sampling)                                                                |                                                       | Introduced                                            | Introduced                                                                 | Practiced                                                      | Practiced                                                 |                                                  | Practiced                                                                        |                                                          | Mastered -<br>Evaluated                                                                           |
| <b>Geochemistry skills:</b>                                                                                                                                                                |                                                       |                                                       |                                                                            |                                                                |                                                           |                                                  |                                                                                  |                                                          |                                                                                                   |
| S13. Students will be able to apply concepts in interexchange equilibrium, thermodynamics, redox, solution chemistry, and organic chemistry to geochemical problems.                       |                                                       |                                                       | Introduced                                                                 | Practiced                                                      |                                                           |                                                  | Practiced                                                                        |                                                          | Mastered -<br>Evaluated                                                                           |
| <b>Communication and writing skills</b>                                                                                                                                                    |                                                       |                                                       |                                                                            |                                                                |                                                           |                                                  |                                                                                  |                                                          |                                                                                                   |
| S14. Students will be able to write a clear and concise report using proper grammar and spelling.                                                                                          |                                                       |                                                       | Introduced                                                                 | Practiced                                                      | Practiced                                                 |                                                  | Practiced                                                                        | Practiced                                                | Mastered -<br>Evaluated                                                                           |
| S15. Students will be able to present material in a concise oral or poster format.                                                                                                         |                                                       |                                                       | Introduced                                                                 |                                                                | Practiced                                                 |                                                  |                                                                                  |                                                          | Mastered -<br>Evaluated                                                                           |
| S16. Students will be able to find and synthesize published works (library research)                                                                                                       |                                                       |                                                       | Introduced                                                                 |                                                                | Practiced                                                 |                                                  | Practiced                                                                        | Practiced                                                | Mastered -<br>Evaluated                                                                           |

**\*\* outcomes P1-P7 (top of list) should be assessible for the programmatic assessment**

# Proposed New Course Syllabi

|                  |                                                                  |
|------------------|------------------------------------------------------------------|
| <b>ENVS 315</b>  | <b>Statistics and Data Analysis (Replaces EPS 428 &amp; 433)</b> |
| <b>ENVS 320L</b> | <b>Environmental Systems (Replaces ENVS 330)</b>                 |
| <b>ENVS 321L</b> | <b>Earth Materials and Critical Zone Geology</b>                 |
| <b>ENVS 322L</b> | <b>Life and the Earth System</b>                                 |
| <b>ENVS 323L</b> | <b>Water in the Earth System</b>                                 |
| <b>ENVS 324</b>  | <b>Earth's Climatic Environment (Replaces EPS 436)</b>           |
| <b>ENVS 430L</b> | <b>Advanced Environmental Science (lab officially added)</b>     |

## **PROPOSED SYLLABUS**

### **COURSE:** ENVS 315: Statistics in Earth Sciences

**Instructor:**

**Email:**

**Office Location:**

**Office Phone:**

**Office Hours:**

**Course Credits:** 3

**Class Meeting Day(s):**

**Class Time:**

**Class Location / Room:**

**Term/Semester:** Fall XX

**Course Description:** Statistical analysis plays an important role in understanding Earth Systems. In this class we will explore basic statistical representations of earth science data, matrix algebra, and multivariate data analysis and Fourier analysis. You will gain a basic understanding of probability and statistics, with particular application to Earth Science data analysis. You will conduct this work in the Excel software environment, thus becoming more familiar with spreadsheet-based analysis. You will also explore ethical data analysis practices.

**Pre-Requisites:** None

**Co-Requisites:** MATH 162

### **Course Objectives and Student Learning Outcomes:**

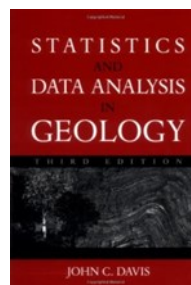
When you complete this course, you will be able to do the following:

1. Quantify uncertainties using basic principles of probability, and assess the statistical significance of calculations based on limited samples of data  
[Learning Outcomes P6, P7] [Skill Outcome S2]
2. Apply basic statistics to analyze a data set  
[Learning Outcomes P6, P7] [Skill Outcome S2, S8]
3. Evaluate time series quantitatively using standard data analysis techniques  
[Learning Outcome P7] [Skill Outcome S3, S8]
4. Assess spatial variance and understand statistical terminology associated with geographic information systems  
[Learning Outcome P7] [Skill Outcomes S8, S9, S10]

### **Proposed Textbook and Supplies:**

**Required:** *Statistics and Data Analysis in Geology*,  
**3<sup>rd</sup> Edition**, 2002

by John C. Davis (Wiley)



**Recommended:** A Statistics Cookbook (Schaum's outline is a venerable and inexpensive one)

### **Other books:**

*Data Analysis in the Earth Sciences*, G. Middleton (Prentice Hall, 2000)  
*Introduction to Linear Algebra in Geology*, J. Ferguson (Chapman & Hall, 1994)  
*Mathematics: A simple tool for geologists*, D. Waltham (Chapman & Hall, 1994)  
*Fourier Analysis of Time Series: An Introduction*, P. Bloomfield (Wiley, 2000)  
*Spectral Analysis in Geophysics*, M. Båth (Elsevier, 1978)  
*Statistical Methods in the Atmospheric Sciences*, D. Wilks (Academic, 1995)  
*Statistical Analysis in Climate Research*, von Storch and Zwiers (Cambridge, 1999)  
*Matlab Recipes for Earth Sciences*, M.H. Trauth (Springer 2007)  
*Spatiotemporal Data Analysis*, G. Eschel (Princeton, 2012)

## Expected Course Format:

The course will be conducted using a combination of lecture and homework exercises. Work will include:

**Readings from the Davis textbook**, plus supplemental handouts from the instructor

### Homework assignments:

Six homework sets will be assigned, as listed on the following course schedule pages. The homework will involve both hand calculations and spreadsheet calculations using Excel.

**...no credit for homework turned in late!**

### Exams:

1 midterm, 1 final exam, in class on the dates shown on the course outline that follows.

## Expected Course Requirements and Grading:

|                                  |     |
|----------------------------------|-----|
| <b><i>Homework Exercises</i></b> | 40% |
| <b><i>Midterm Exam</i></b>       | 25% |
| <b><i>Final Exam</i></b>         | 35% |

**Grading Scale:** A+ (97 -100), A (93-96), A- (90-92), B+ (87-89), B (83-86), B- (80-82), C+ (77-79), C (73-76), C- (70-72), D+ (67-69), D (63-66), D- (60-62), F (0-59)

- decimal portions will be rounded up if over 0.5, down if below 0.5

**\*\* I reserve the right to modify the strict point system for grading.**

## Email / Internet Access Policy:

**All students are required to have a university e-mail account.** We will be using UNM LEARN as a course tool and it requires a UNM NetID account for access. Also, I will email updates/changes to the class and reminders or help for assignments during the duration of the class. You will need to use your UNM email (or forward that email) to get these announcements. **YOU NEED TO USE UNM LEARN IN ORDER TO BE SUCCESSFUL IN THIS CLASS!**

## Accommodation Statement:

Accessibility Services (Mesa Vista Hall 2021, 277-3506) provides academic support to students who have disabilities. If you think you need alternative accessible formats for undertaking and completing coursework, you should contact this service right away to assure your needs are met in a timely manner. If you need local assistance in contacting Accessibility Services, see the Bachelor and Graduate Programs office. I will make every effort to work things out with you if (**and only if**) you give me advance notice.



**Course Outline:** Lecture schedule is approximate; deadlines and exam dates are fixed

| <u>week</u>         | <u>dates</u> | <u>topic</u>                                                                  | <u>[pg/Davis 3ed]</u> | <u>coursework</u>  |
|---------------------|--------------|-------------------------------------------------------------------------------|-----------------------|--------------------|
| <b>1</b>            |              | <b>Introduction to Probability and Statistics (Ch 1, 2)</b>                   |                       |                    |
|                     | M            | Introduction to probability                                                   | [1-24]                |                    |
|                     | W            | <b>Discussion:</b> Introduction to Excel                                      |                       |                    |
|                     | F            | <i>no class on this day</i>                                                   |                       |                    |
| <b>2</b>            |              | <b>Probability (Ch 2)</b>                                                     |                       |                    |
|                     | M            | <i>MLK holiday; no class</i>                                                  |                       |                    |
|                     | W            | <b>Discussion:</b> Laws of probability; Frequentist vs Bayesian approaches    |                       | <b>HW 1 posted</b> |
|                     | F            | Distributions and random variables                                            | [25-33]               |                    |
| <b>3</b>            |              | <b>Summary statistics (Ch 2)</b>                                              |                       |                    |
|                     | M            | Measures of central tendency and spread                                       | [34-39]               |                    |
|                     | W            | <b>Discussion:</b> HW1; estimates of average, spread, and correlation         |                       |                    |
|                     | F            | Multivariate analysis: Covariance and correlation                             | [40-50]               | <b>HW 1 due</b>    |
| <b>4</b>            |              | <b>Assessment of confidence and significance (Ch 2)</b>                       |                       |                    |
|                     | M            | Normal distributions; Central Limits Theorem                                  | [50-59]               |                    |
|                     | W            | <b>Discussion:</b> significance tests, significant digits, and random numbers |                       | <b>HW 2 posted</b> |
|                     | F            | Null hypotheses; significance tests; confidence intervals                     | [60-74]               |                    |
| <b>5</b>            |              | <b>Analysis of variance; non-normally distributed data (Ch 2)</b>             |                       |                    |
|                     | M            | F-distribution; Analysis of variance (ANOVA)                                  | [75-92]               |                    |
|                     | W            | <b>Discussion:</b> HW2; ANOVA                                                 |                       |                    |
|                     | F            | c2, Gamma distributions; non-normally distributed data                        | [92-107]              | <b>HW 2 due</b>    |
| <b>6</b>            |              | <b>Sequences of data; time series analysis (Ch 4)</b>                         |                       |                    |
|                     | M            | Sequences & runs of data; missing data;                                       | [159-191]             |                    |
|                     | W            | <b>Discussion:</b> Intro to time series analysis; Poisson distribution        |                       | <b>HW 3 posted</b> |
|                     | F            | Least-squares curve fitting                                                   | [191-227]             |                    |
| <b>7</b>            |              | <b>Linear regression (Ch 4, 6)</b>                                            |                       |                    |
|                     | M            | Linear regression                                                             | [191-227]             |                    |
|                     | W            | <b>Discussion:</b> HW3; regression                                            |                       |                    |
|                     | F            | Multiple regression                                                           | [461-470]             | <b>HW 3 due</b>    |
| <b>8</b>            |              | <b>Review / Midterm exam</b>                                                  |                       |                    |
|                     | M            | makeup/catchup                                                                |                       |                    |
|                     | W            | <b>Discussion:</b> review for midterm exam                                    |                       |                    |
|                     | F            | <b>Midterm exam in class</b>                                                  |                       | <b>exam</b>        |
| <b>Spring Break</b> |              |                                                                               |                       |                    |
| <b>9</b>            |              | <b>Time series: time domain vs frequency domain analysis</b>                  |                       |                    |
|                     | M            | Autocorrelation, autocovariance; intro to Fourier series                      | [243-268]             |                    |
|                     | W            | <b>Discussion:</b> discuss midterm exam; basic trigonometry review            |                       | <b>HW 4 posted</b> |
|                     | F            | Spectral analysis: Fourier's theorem                                          | [268-277]             |                    |
| <b>10</b>           |              | <b>Introduction to spectral analysis (Ch 4)</b>                               |                       |                    |
|                     | M            | Power spectrum                                                                | [275-277]             |                    |
|                     | W            | <b>Discussion:</b> HW4; periodograms, power spectra                           |                       |                    |
|                     | F            | Smoothing; tradeoff between resolution & confidence                           | <b>handout</b>        | <b>HW 4 due</b>    |

|           |   |                                                                         |           |             |
|-----------|---|-------------------------------------------------------------------------|-----------|-------------|
| <b>11</b> |   | <b>Spectral analysis - continued</b>                                    |           |             |
|           | M | Significance of spectral peaks                                          | handout   |             |
|           | W | <b>Discussion:</b> spectral smoothing; assessment of spectral peaks     |           | HW 5 posted |
|           | F | Cross-spectral analysis                                                 | handout   |             |
| <b>12</b> |   | <b>Introduction to eigenanalysis (Ch 3)</b>                             |           |             |
|           | M | Matrix algebra, determinants, inverse                                   | [123-141] |             |
|           | W | <b>Discussion:</b> HW5; systems of linear equations                     |           |             |
|           | F | Introduction to eigenvectors                                            | [141-153] | HW 5 due    |
| <b>13</b> |   | <b>Eigenanalysis - continued (Ch 3, 6)</b>                              |           |             |
|           | M | Principal components analysis; eigenvectors                             | [509-525] |             |
|           | W | <b>Discussion:</b> EOFs and PCs                                         |           | HW 6 posted |
|           | F | Principal components analysis, part II                                  | [509-525] |             |
| <b>14</b> |   | <b>Spatial Analysis (Ch 5)</b>                                          |           |             |
|           | M | Directional and spherical data                                          | [316-341] |             |
|           | W | <b>Discussion:</b> HW6                                                  |           |             |
|           | F | Contouring / Trend surfaces                                             | [380-407] | HW 6 due    |
| <b>15</b> |   | <b>Spatial Analysis - continued</b>                                     |           |             |
|           | M | Introductory concepts of kriging                                        | [416-428] |             |
|           | W | <b>Discussion:</b> return HW6, summary of temporal and spatial analysis |           |             |
|           | F | review for final exam                                                   |           |             |

**Final Exam** (according to final exam schedule)

## **PROPOSED SYLLABUS**

### **COURSE: ENVS 320L: Environmental Systems (Replaces ENVS 330)**

**Instructor:**

**Email:**

**Office Location:**

**Office Phone:**

**Office Hours:**

**Course Credits:** 4

**Class Meeting Day(s):**

**Class Time:**

**Class Location / Room:**

**Term/Semester:** Fall XX

**Course Description:** Analysis of environmental science data focusing on local water, soil, atmospheric, and bedrock systems and comparisons to analogous systems around the world. In-class exercises, outdoor data collection trips, and laboratory exercises provide hands-on experience with collection of physical and chemical data, mapping, data base development, and basic statistical and geospatial analysis.

**Pre-Requisites:** ENVS 101 (The Blue Planet) or EPS 101 (How the Earth Works); ENVS 102L (The Blue Planet Lab) or EPS 105L (How the Earth Works Lab); MATH 121 (College Algebra)

**Co-Requisites:** None

### **Course Objectives and Student Learning Outcomes:**

When you complete this course, you will be able to do the following:

Students will be able to describe the general characteristics of each of the principal components of the Earth System (geosphere, hydrosphere, atmosphere, and biosphere).

*Links to Programmatic Objectives P1, P2, and P4.*

Students will be able to describe and conceptually model the conservation of mass, momentum, and energy in Earth Systems, and students will be able to analyze fluxes of energy and key elements and compounds, including water, carbon, and nitrogen (biogeochemical cycles), between the principal components of the Earth System through use of box models, simple Excel spreadsheets, and graphing.

*Links to Programmatic Objectives P1, P2, P4, and P5 and Skills Objectives S1, S2, S5, and S6.*

Students will be able to apply simple (algebraic-based) mathematical models to define Earth system processes. Students will begin to use calculus principles used to describe Earth system processes.

*Links to Skills Objective S1, S4.*

Students will be able to apply common tools used in Environmental Science, such as interpretation of maps, graphs, figures, and box models to enable analysis and synthesis of data collected in the field.

*Links to Programmatic objectives P3, P6 and P7 and Skills Objectives S1, S8, S9, S10, S11, S12 and S13.*

Students will be able to employ common software for scientific work, such as word processing, spreadsheet programs, and presentation software.

*Links to Skills Objectives S3, S10 and S15.*

Students will be able to search, read and report on literature related to Environmental Science, and students will be able to present this material in a concise manner (specifically in a poster presentation).

*Links to Skills Objectives S14, S15, and S16.*

Students will be able to explain and describe some principles of ethics in the conduct and application of science, within the academic and professional arenas.

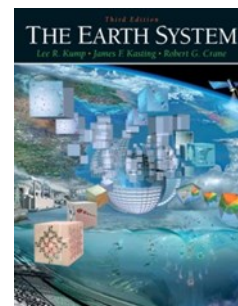
○ *Links to Programmatic Objective P6.*

## Proposed Textbook and Supplies:

### ***The Earth System, Third Edition***, 2009

by Lee R. Kump, James F. Kasting, and Robert G. Crane

Supplemented by course pack tailored to modules.



## Expected Course Format:

The course and laboratory exercises are organized into 4 modules with a required data collection field trip during each module as part of the lab component. Each module follows a similar sequence beginning with a brief introduction to the relevant local environment, the questions to be investigated, and development of a data collection plan. Once data are collected different principles will be introduced at the beginning of the week progressing toward application of those principles to newly collected data and public data by the end of the week. Frequent (1-2 per week) in-class exercises will focus on quantitative analysis drawing from basic statistics, mechanics, chemistry, and geospatial analysis. The lecture portion of the course will incorporate data collected in the lab course and place the local environmental systems in a global and temporally evolving perspective. Additionally, the lecture portion will include exercises related to application of principles of conservation of mass, momentum, and energy at various scales (from global to local scales) and feedback loops.



## Expected Course Requirements and Grading:

|                                                                  |           |                                                                  |
|------------------------------------------------------------------|-----------|------------------------------------------------------------------|
| <b><i>In-Class Exercise Write-ups and Homework Exercises</i></b> | 20%       | Several homework assignments during the course of the semester.  |
| <b><i>Laboratory Exercise/Module Write-ups</i></b>               | 15%       | A final write-up will be required for each of the 4 lab modules. |
| <b><i>Exams</i></b>                                              | 25% total | Two midterm exams                                                |
|                                                                  | 15%       | Final Exam (Comprehensive)                                       |
| <b><i>Participation</i></b>                                      | 5%        | Evaluated on participation in activities.                        |
| <b><i>Final Project</i></b>                                      | 20%       | Poster presentation and related assignments.                     |

**Grading Scale:** A+ (97 -100), A (93-96), A- (90-92), B+ (87-89), B (83-86), B- (80-82), C+ (77-79), C (73-76), C- (70-72), D+ (67-69), D (63-66), D- (60-62), F (0-59)

## Email / Internet Access Policy:

**All students are required to have a university e-mail account.** We will be using UNM LEARN as a course tool and it requires a UNM NetID account for access. Also, I will email updates/changes to the class and reminders or help for assignments during the duration of the class. You will need to use your UNM email (or forward that email) to get these announcements. **YOU NEED TO USE UNM LEARN IN ORDER TO BE SUCCESSFUL IN THIS CLASS!**

## Attendance Policy:

Regular and punctual attendance is required. UNM *Pathfinder* policies apply, which in part means instructor drops based on non-attendance are possible. This policy applies regardless of the grading option you have chosen.

## Accommodation Statement:

Accessibility Services (Mesa Vista Hall 2021, 277-3506) provides academic support to students who have disabilities. If you think you need alternative accessible formats for undertaking and completing coursework, you should contact this service right away to assure your needs are met in a timely manner. If you need local assistance in contacting Accessibility Services, see the Bachelor and Graduate Programs office.

## Draft Schedule of Topics:

### Module 1 – Physical aspects of surface water transport and riparian environments.

#### Lecture portion topics:

- Systems science introduction
- Hydrologic cycle exercises and box models;
- Basics of feedback loops;
- Basic statistics primer exercises;
- Measurement of surface water discharge;
- Riparian ecology; and
- General GIS applications and computer management.

#### Lab portion:

- Field notebook methods;
- Field data collection and observations at the Bosque;
  - Tree height, density, and diameter measurements;
  - GPS waypoint collection techniques.
- Stream gaging exercise (field trip to small local stream for gaging);
- Application of basic statistics to field data (distributions, central estimators, variance, etc.);
- Data downloading from governmental agency sources (e.g., stream gage data and aerial photographs; and
- Introduction to Geographic Information Systems (GIS) software.

## **Module 2 – Sandia Crest vegetation change and climate.**

### Lecture portion topics:

- Global energy balance;
- Atmospheric circulation patterns and relationship to NM climate;
- Atmospheric processes and weather (e.g., orographic effects);
- Local insolation calculations; and
- Climate variability.

### Lab portion topics:

- Basic orienteering with map and compass;
- Temperature data collection as functions of elevation and time (download data from sensors placed in the field).
- Field observations of vegetation relationships relative to slope and aspect in the Sandias, and observations of tree density and mortality.
- Field observations of soil textures along the Rio Grande to Sandia Crest transect (to be used in Module 3).
- Remote sensing exercises to evaluate vegetation distributions from Landsat data (e.g., NDVI and EVI), change in vegetation, and influence of insolation on vegetation distribution (modeled using tools in ArcGIS)

## **Module 3 – Alluvial fans/foothills geomorphology.**

### Lecture portion topics:

- Fluvial and hillslope processes and the influence and evidence of past climate changes;
- Drainage network evolution and stream order;
- Controls on deposition and erosion.
- Weathering (geosphere / atmosphere interactions) and soil development; and
- Rio Grande Rift development and influence of faults and structures on groundwater recharge.

### Laboratory portion topics:

- Field mapping exercises on terraces and alluvial fans at Sandia foothills;
- Drainage basin mapping and evaluation;
- Sediment source area delineation
- Drainage basin geomorphic metrics and stream order calculations;
- Locating springs using aerial photography;
- Evaluation of soil textures along transect and relationship to fluvial/alluvial geomorphology.

## **Module 4 – Bosque, geochemistry focus.**

### Lecture portion concepts:

- Geochemistry principles – anion/cation balance, chemical equilibrium;
- Geochemical sampling and water quality;
- Natural and anthropogenic sources of constituents in groundwater; and
- Groundwater resources and movement.
- Statistical analyses – probability, correlation, regression, ANOVA.

### Lab portion concepts:

- Field geochemical measurement and sampling methods;
- Laboratory processing and evaluation of samples;
- Basic geochemical modeling and chemical charge balance; and
- Statistical analysis of geochemical results.

## **Summary week – Establish links between modules.**

## **PROPOSED SYLLABUS**

### **COURSE:** ENVS 321L: Earth Materials and Critical Zone Geology

**Instructor:**

**Email:**

**Office Location:**

**Office Phone:**

**Office Hours:**

**Course Credits:** 4

**Class Meeting Day(s):**

**Class Time:**

**Class Location / Room:**

**Term/Semester:** Spring XX

**Course Description:** Rocks and minerals form a critical foundation for all Earth's systems, and understanding the chemical composition and physical characteristics of these Earth's materials is important for work in Environmental Sciences. This course covers rock and mineral formation, chemistry, stability, and transformations on Earth's surface, focusing on processes related to the "critical zone", or uppermost crust.

**Pre-Requisites:** ENVS 320L (Environmental Systems); CHEM 121/123L (General Chemistry 1 and lab); MATH 150 (Pre-calculus) or MATH 153 (Pre-calculus and Trigonometry)

**Co-Requisites:** None

### **Course Objectives and Student Learning Outcomes:**

When you complete this course, you will be able to do the following:

Differentiate different rock types (e.g., igneous, metamorphic, and sedimentary), identify basic minerals in these rocks, and explain their environments of formation and interpret their plate tectonic context.

*Links to Programmatic Objectives P1, P2, and Skills Objectives S1, S13, and S14.*

Employ knowledge of isotopic systems to calculate age of rocks and interpret processes of formation

*Links to Programmatic Objectives P1, and Skills Objectives S1, S2, S13*

Employ knowledge of mineral and rock formation to assess the fundamental causes and types of physical and chemical weathering

*Links to Programmatic Objectives P1, P2, P4 and P7 and Skills Objectives S1, S6, S12, and S13*

Apply knowledge of the genesis of different secondary weathering products and soils to analyze the origin and evolution of diverse landforms and associated surficial processes.

*Links to Programmatic Objectives P2, P3, P4 and P7 and Skills Objectives S1, S6, S12, and S13*

Map and interpret various soil morphological, chemical and mineralogical properties, describe and classify soil horizons, and interpret the formation of soil profiles in diverse landscapes and climate regimes.

*Links to Programmatic Objectives P2, P3, P4 and P7 and Skills Objectives S12*

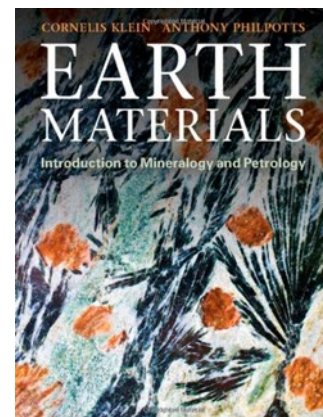
### **Proposed Textbook and Supplies:**

***Earth Materials: Introduction to Mineralogy and Petrology***, 2012

by Cornelis Klein and Anthony Philpotts

\*\*\* or similar textbook, to be determined.

Supplemented by course pack tailored to course material.



## Expected Course Format:

The course is divided into a lecture/activity section and a laboratory section. In the lecture portion, students will cover information relevant to several topics related to Earth Materials including mineral formation and geochemistry, rock formation, the rock cycle tied to plate tectonics, radiometric age dating, weathering, and soils and geomorphology. The laboratory portion of the class provides training on skills needed to assess rocks and minerals in the field and in the laboratory, including sections focused on microscopy, hand sample analysis, field data collection, and field mapping.

## Expected Course Requirements and Grading:

|                                                    |           |                                                                 |
|----------------------------------------------------|-----------|-----------------------------------------------------------------|
| <b><i>Homework Exercises</i></b>                   | 20%       | Several homework assignments during the course of the semester. |
| <b><i>Laboratory Exercise/Module Write-ups</i></b> | 25%       | A final write-up will be required for each lab exercise.        |
| <b><i>Exams</i></b>                                | 25% total | Midterm Exam                                                    |
|                                                    | 30%       | Final Exam                                                      |

**Grading Scale:** A+ (97 -100), A (93-96), A- (90-92), B+ (87-89), B (83-86), B- (80-82), C+ (77-79), C (73-76), C- (70-72), D+ (67-69), D (63-66), D- (60-62), F (0-59)

- decimal portions will be rounded up if over 0.5, down if below 0.5

## Email / Internet Access Policy:

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## Attendance Policy:

Regular and punctual attendance is required. UNM *Pathfinder* policies apply, which in part means instructor drops based on non-attendance are possible. This policy applies regardless of the grading option you have chosen.

## Accommodation Statement:

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## **Draft Schedule of Topics:**

### **Lecture Portion:**

- Introduction to Earth Materials
- Minerals – building blocks of rocks.
- Geochemistry – analyses of rocks
- The rock cycle
  - Magma and igneous rocks
  - Metamorphic rocks
  - Sedimentary rocks and depositional environments
  - Global tectonics – plates and plumes
- Earth materials as time keepers
- Weathering of Earth Materials
  - Physical weathering
  - Chemical weathering
- Soil science
  - Formation of soils – geomorphology
  - Soil classification
  - Soils in different climates
  - Soils and landforms
  - Impacts of climate change on soils
  - Field trip based – alluvial fans, terraces, pediments, hillslopes
- Earth surface materials
  - Soil morphological properties
  - Secondary minerals

### **Laboratory Portion:**

- Igneous minerals
  - Hand specimen based
- Igneous rocks
  - Hand specimens
  - Petrographic microscope
- Magma chamber and magma differentiation
  - Quantitative exercise
- Metamorphic minerals
  - Hand specimens
- Metamorphic rocks
  - Hand specimens and thin sections
- Sedimentary Rocks (clastic and chemical)
  - Hand specimen and thin sections
- Surface materials and processes
  - Field trip based – fluvial, eolian, mass movement
- Terrestrial landforms
  - Field trip based – alluvial fans, terraces, pediments, hillslopes
- Earth surface materials
  - Soil morphological properties
  - Secondary minerals

## **PROPOSED SYLLABUS**

**COURSE:** ENVS 322L: Life and the Earth System

**Instructor:** Corinne Myers

**Email:** cemyers@unm.edu

**Office Location:**

**Office Phone:**

**Office Hours:**

**Course Credits:** 4

**Class Meeting Day(s):** MWF

**Class Time:**

**Class Location / Room:**

**Term/Semester:** Fall XX

**Course Description:** Investigation of the co-evolution of the Earth and life, including origins and evolution of life, ecology and biogeography, biogeochemical cycles, and the impact of a dynamic Earth environment on major radiations and extinctions. In-class discussions and exercises, labs, and field trips are geared towards establishing expertise in hypothesis generation, data collection, basic statistical analysis, and visualization and spatial analysis using a GIS.

**Pre-Requisites:** BIOL 123 (Biology for Health Related Sciences and Non-Majors); BIO 124L (Lab); ENVS 101 (The Blue Planet); ENVS 102L (The Blue Planet Lab); MATH 150 (Pre-Calculus Mathematics) or MATH 153 (Pre-Calculus and Trigonometry); ENVS 320L (Environmental Systems); ENVS 321L (Earth Materials)

**Co-Requisites:** None

### **Course Objectives and Student Learning Outcomes:**

When you complete this course, you will be able to do the following:

Students will be able to describe feedbacks between life the other spheres (geosphere, hydrosphere, atmosphere), including specific examples of how life impacts the abiotic Earth environment and how the abiotic environment impacts life over short and long spatiotemporal scales.

*Links to Programmatic Objectives P1, P2, P4, P8.*

Students will be able to define basic principles and concepts of the origin of life, biodiversity, ecology, and evolution. Students will be able to identify processes uniquely occurring in evolution vs. ecology and analyze the linkages between them.

*Links to Programmatic Objectives P1, P8.*

Students will be able to define ways in which human behaviors impact the biosphere. Students will be able to analyze the potential consequences of human impacts at appropriate spatiotemporal scales within both an evolutionary and ecological context.

*Links to Programmatic Objectives P1, P5, P6.*

Students will be able to apply common tools used in Environmental Science, such as interpretation of maps, graphs, figures, and statistical models to enable analysis and synthesis of data collected in the field and from online databases.

*Links to Programmatic Objectives P6, P7; Skills Objectives S2, S3, S8, S9.*

Students will be able to employ common software for scientific work, such as word processing, spreadsheet programs, presentation software, and basic data visualization and spatial analysis in a GIS.

*Links to Programmatic Objective P7; Skills Objectives S2, S3, S8, S9.*

Students will be able to search, read and report on literature related to Environmental Science, and students will be able to present this material in a concise manner (e.g. in an oral presentation and/or a written report).

Links to Programmatic Objective P7, and Skills Objectives S14, S15, S16.

Students will be able to apply scientific methods to a research question in Environmental Science, as well as explain the impact of science in their daily lives and expected careers.

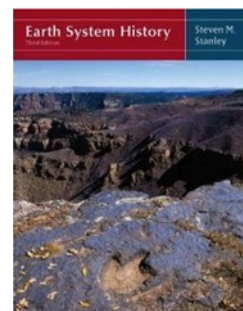
Links to Programmatic Objective P1, P4, P6, P7; Skills Objectives S2, S3, S12, S14, S15.

## Proposed Textbook and Supplies:

***Earth System History, Third Edition*, 2008**

by Steven M. Stanley (4<sup>th</sup> ed just came out Feb 2014...?)

Supplemented by course packet including relevant primary literature.



## Expected Course Format:

The course and lab are divided into five themes that highlight different aspects of the biosphere within the larger Earth system. Lectures will introduce new concepts in biology, including ecology, evolutionary theory, and biogeochemical cycling, and practice identifying, reading, and analyzing primary literature. Labs will introduce basic techniques in biological environmental science, including data collection (from fieldwork, museums, and online databases), basic statistical analysis, and visualization/spatial analysis using a GIS. Labs will enable application of these techniques in both independently (e.g., through guided exercises and short write-ups) and synthesized through a multi-week research project. Students will synthesize material by analyzing human impacts on the biosphere and other components of the Earth system in a research paper and final oral debate with classmates on consequences and strategies to mitigate these effects.

## Expected Course Requirements and Grading:

|                                                                         |                  |                                                                                           |
|-------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------------|
| <b><i>In-Class Exercises, Presentations, and Homework Exercises</i></b> | 20%              | Several homework or in-class assignments during the course of the semester.               |
| <b><i>Laboratory Exercise/Module Write-ups</i></b>                      | 20%              | Each lab is accompanied by a written exercise or write-up.                                |
| <b><i>Exams</i></b>                                                     | 20% total<br>15% | One midterm exam<br>Final Exam (Comprehensive)                                            |
| <b><i>Participation</i></b>                                             | 5%               | Evaluated on participation in activities.                                                 |
| <b><i>Research Paper and Presentation</i></b>                           | 20% total<br>10% | Research paper<br>Participation in final debate/discussion on human impacts on biosphere. |

## **Email / Internet Access Policy:**

**All students are required to have a university e-mail account.** We will be using UNM LEARN as a course tool and it requires a UNM NetID account for access. Also, I will email updates/changes to the class and reminders or help for assignments during the duration of the class. You will need to use your UNM email (or forward that email) to get these announcements. **YOU NEED TO USE UNM LEARN IN ORDER TO BE SUCCESSFUL IN THIS CLASS!**

## **Attendance Policy:**

Regular and punctual attendance is required. UNM *Pathfinder* policies apply, which in part means instructor drops based on non-attendance are possible. This policy applies regardless of the grading option you have chosen.

## **Accommodation Statement:**

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## **DRAFT SCHEDULE OF TOPICS**

### **Module 1 – Habitable planet and early life.**

#### Lecture topics:

- What is life?
- Abiotic conditions necessary to produce/sustain life
- Is the Earth unique?
- Origins and early life – great oxygenation event
- Issues of spatial and temporal scale

#### Lab topics:

- Data collection and hypothesis testing in biological sciences
- Origins and early life
- Basic statistical analysis: central tendencies, probability/distributions, correlation, t-tests

## **Module 2 – Abiotic-biotic feedbacks and nutrient cycling.**

### Lecture topics:

- Major biogeochemical cycles (C, N, P, some on Fe, S); including sources and sinks, residence times in reservoirs, historical and human perturbations to the system
- Major environmental cycles and impact on life –
  - Atmosphere/cryosphere – greenhouse/icehouse cycles, Milankovich cycles
  - Lithosphere – plate tectonics, volcanism, dynamic topography
  - Hydrosphere – ocean oxygenation and circulation
- Life's impact on the environment – build-up of oxygen (photosynthesis/respiration), biomineralization, bioturbation, weathering, erosion

### Lab topics:

- Stella biogeochemical modeling
- GIS map of nutrient sources/sinks
- Species' distribution change across Pleistocene climate changes (e.g., SERC exercise or ENM)
- Biological weathering and/or bioturbation experiment

## **Module 3 – Genealogical Hierarchy: evolution, causes/consequences of major radiations and extinctions.**

### Lecture topics:

- Genealogical individuals – genes, chromosomes, germ-line cells, organisms, demes, species, clades; linked through the transfer of information via reproduction
- Taxonomy vs. phylogeny; homology
- Species definitions (sexual vs. asexual reproduction)
- Theory of evolution
- Evolutionary mechanisms: mutation, genetic drift, gene flow, natural selection, sorting, etc.
- Speciation – descent with modification, mate recognition, sympatric, allopatric (parapatric, peripatric); factors promoting and inhibiting
- Extinction – local, regional, global, mass extinction; factors promoting or inhibiting

### Lab topics:

- Taxonomy and identification of homology
- Morphological and genetic coding and phylogenetic analysis
- Natural selection (e.g. moths selection simulation)
- Population Genetics (e.g., population change by allele combo, “mating game”)

## **Module 4 – Ecological Hierarchy: energy transfer in ecosystems, population and species ecology, biogeography.**

### Lecture topics:

Ecological individuals – proteins, somatic cells, organisms, avatars, ecosystems/communicates, biosphere/regional biota; linked through the transfer of matter and energy via interaction with the environment  
autotrophy vs. heterotrophy; trophic levels, food chains/webs  
metabolism  
environmental niches  
biotic interactions – competition, mutualism, commensalism, parasitism, etc  
dispersal – home range vs. chance events, migration, vicariance  
population ecology and life history traits  
species ecology and biogeographic traits  
impact of ecological hierarchy on evolution via natural selection

### Lab topics:

Population ecology – predator/prey interactions, density dependence/carrying capacity, life history tables; (e.g., simulation experiments)  
Species ecology – elevational vs. latitudinal diversity gradients, Earth's major biomes, niches and climate change;  
Collecting data from online scientific databases for GIS visualization and spatial analysis (maybe ENM?); basic stats  
Fieldtrip – ecosystem function and/or diversity counting; collect data for later GIS visualization and spatial analysis

## **Module 5 – Synthesis: Humans and the biosphere.**

### Lecture topics:

Challenges to biota today – climate change (ocean acidification), habitat degradation/loss, biotic invasions  
Human impacts on biosphere – over-population, over-harvest, pollution, landscape changes, introduced species  
Conservation biology – global biosphere connections, genetic bottlenecks, species extinction before discovery, effective habitat/wilderness protection, efficacy of restoration and re-wilding, policy/advocacy/ESA and other regulations

### Lab topics:

Multi-week final project: Are we headed towards a 6<sup>th</sup> mass extinction?  
In groups, review primary scientific literature, as well as policy decisions and debates on this issue; codify arguments for/against, consequences of various styles of action/inaction, etc.  
Final lab: debate and “what should we do about it” policy discussion; final write-up on consequences of inaction on the biosphere and other Earth system components

## **PROPOSED SYLLABUS**

### **COURSE:** ENVS 323L: Water in the Earth System

**Instructor:**

**Email:**

**Office Location:**

**Office Phone:**

**Office Hours:**

**Course Credits:** 4

**Class Meeting Day(s):**

**Class Time:**

**Class Location / Room:**

**Term/Semester:** Spring XX

**Course Description:** Quantitative treatment of the global hydrologic cycle and links to the broader Earth System, including precipitation, evapotranspiration, infiltration, runoff and subsurface flow; global change and hydrology; catchment and hillslope hydrology; hydrologic system-ecosystem interactions; water chemistry evolution.

**Pre-Requisites:** ENVS 321L (Earth Materials) or EPS 304L (Sedimentology and Stratigraphy); MATH 162 (Calculus I); PHYC 160 (General Physics I).

**Co-Requisites:** MATH 163 (Calculus I)

### **Course Objectives and Student Learning Outcomes:**

When you complete this course, you will be able to do the following:

Analyze, critically interpret, and evaluate (both qualitatively and quantitatively) water and energy movement and related processes in the hydrologic cycle, including evaluation of precipitation, stream flow, and groundwater data using concepts of fluid dynamics.

*Links to Programmatic Objectives P1, P2, P3, P4, P5, and P7, and Skills Objectives S1, S2, S3, S4, S5, S6, S7, S8, and S11.*

Evaluate and construct simple numerical models of water movement in Earth Systems.

*Links to Programmatic Objectives P1 and P4, and Skills Objectives S1, S2, S4, and S5.*

Describe how a changing climate may impact water quantity and quality.

*Links to Programmatic Objective P5 and Skills Objectives S1, S2, S3, S4, and S5.*

Analyze chemical constituents in water and assess evolution of the water composition.

*Links to Programmatic objectives P1, P3 and P4 and Skills Objectives S1, S3, S4, S5, S6, S8, S9, and S12.*

Students will be able to employ common software for scientific work, such as MATLAB, word processing, spreadsheet programs, and presentation software.

*Links to Programmatic Objectives P7 and Skills Objectives S1, S3, S4, S5, S7, S9 and S14.*

Students will be able to search, read and report on literature related to Hydrology.

*Links to Skills Objectives S14 and S16.*

Students will be able to explain and describe some principles of ethics in the conduct and application of science, within the academic and professional arenas.

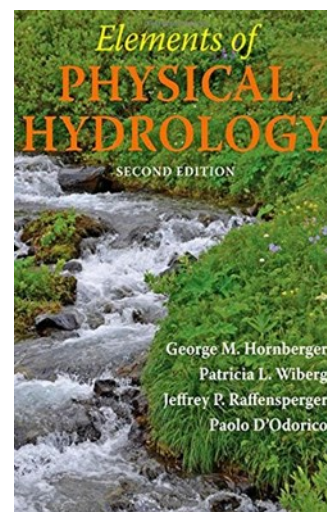
*Links to Programmatic Objective P6.*

### **Proposed Textbook and Supplies:**

***Elements of Physical Hydrology, 2nd Edition, 2014***

by George M. Hornberger, Patricia L. Wiberg, Jeffrey P. Raffensperger, and Paolo D'Ordorico

Supplemented by on-line materials and exercises.



## Expected Course Format:

The lecture portion of the class will focus on theoretical aspects of physical hydrology, including dynamics of freshwater flow throughout the Earth system and statistical techniques for analyzing data. The lab portion of the class will involve hands-on data collection and analysis from a variety of field settings and from laboratory physical and computational experiments. The lab portion will also include an introduction to MATLAB programming.

## Expected Course Requirements and Grading:

|                                                                  |           |                                                                  |
|------------------------------------------------------------------|-----------|------------------------------------------------------------------|
| <b><i>In-Class Exercise Write-ups and Homework Exercises</i></b> | 25%       | Several homework assignments during the course of the semester.  |
| <b><i>Laboratory Exercise/Module Write-ups</i></b>               | 25%       | A final write-up will be required for each of the 4 lab modules. |
| <b><i>Exams</i></b>                                              | 20% total | Midterm Exam                                                     |
|                                                                  | 25%       | Final Exam (Comprehensive)                                       |
| <b><i>Participation</i></b>                                      | 5%        | Evaluated on participation in activities.                        |

**Grading Scale:** A+ (97 -100), A (93-96), A- (90-92), B+ (87-89), B (83-86), B- (80-82), C+ (77-79), C (73-76), C- (70-72), D+ (67-69), D (63-66), D- (60-62), F (0-59)

- decimal portions will be rounded up if over 0.5, down if below 0.5



## Email / Internet Access Policy:

**All students are required to have a university e-mail account.** We will be using [UNM LEARN](#) as a course tool and it requires a UNM NetID account for access. Also, I will email updates/changes to the class and reminders or help for assignments during the duration of the class. You will need to use your UNM email (or forward that email) to get these announcements. **YOU NEED TO USE [UNM LEARN](#) IN ORDER TO BE SUCCESSFUL IN THIS CLASS!**

## Attendance Policy:

Regular and punctual attendance is required. UNM *Pathfinder* policies apply, which in part means instructor drops based on non-attendance are possible. This policy applies regardless of the grading option you have chosen.

## Accommodation Statement:

Accessibility Services (Mesa Vista Hall 2021, 277-3506) provides academic support to students who have disabilities. If you think you need alternative accessible formats for undertaking and completing coursework, you should contact this service right away to assure your needs are met in a timely manner. If you need local assistance in contacting Accessibility Services, see the Bachelor and Graduate Programs office.



## Draft Schedule of Topics (subject to change):

- 1) Intro and Land-Atmosphere Interactions
  - Water balance
  - Precipitation
  - Evapotranspiration
  - Lab: Field sampling of hydrogeologic data**
- 2) Principles of fluid dynamics
  - Forces on fluids
  - Fluid statics
  - Fluid dynamics
  - Energy Loss
  - Laminar and turbulent flows
  - LAB: Introduction to MATLAB (two sessions)**
- 3) Open channel hydraulics
  - Specific energy
  - Discharge measurements using control structures
  - Bed roughness
  - Channel flow equations
  - Measuring flow in natural channels
  - LAB: Stream Gaging (possible field work)**
  - LAB: Geochemical sampling and analysis of surface water**
- 4) Catchment hydrology
  - The hydrograph
  - Flood routing
  - Flood frequency analysis
  - LAB: Muskingum Flood Routing and (or) Flow Duration Curves in MATLAB**
- 5) Groundwater hydraulics
  - Darcy's Law
  - Steady groundwater flow
  - LAB: Groundwater Flow Model ("Antfarm")**
- 6) Groundwater hydrology
  - Flow nets
  - Regional groundwater flow
  - Well hydrographs
  - LAB: Groundwater Flow Models in MATLAB**
- 7) Water Chemistry in Natural Systems
  - Geochemical sampling
  - Geochemical evolution of surface and groundwaters
  - LAB: Geochemical modeling and sampling labs (two labs)**
  - LAB: Contaminant Transport lab (MATLAB)**
- 8) Water in the unsaturated zone
  - Forces
  - Capillary pressure head and the moisture characteristic
  - Vertical water movement
  - Equilibrium profile above a water table
  - Infiltration
  - Evapotranspiration in the unsaturated zone
  - LAB: Soil Moisture and Vadose Zone measurements**
  - LAB: Numerical analysis of 1D Vadose zone flow**
- 9) Catchment hydrology
  - Streamflow hydrographs
  - Runoff separation
  - Catchment models
  - LAB: Synthesis – post-fire flooding**

## **PROPOSED SYLLABUS**

### **COURSE:** ENVS 324: Earth's Climatic Environment

**Instructor:**

**Email:**

**Office Location:**

**Office Phone:**

**Office Hours:**

**Course Credits:** 3

**Class Meeting Day(s):**

**Class Time:**

**Class Location / Room:**

**Term/Semester:** Fall XX

**Course Description:** In this course, you will gain a basic process-based understanding of Earth's climate system. We will practice physics-based problem-solving skills and apply scientific concepts related to understanding the Earth's climatic system. We will evaluate the magnitude and mechanisms of observed and projected climate change, and discuss issues related to the current climate (e.g., El Niño, drought, global warming, etc).

**Pre-Requisites:** ENVS 323L; MATH 163 (Calculus II); PHYC 160 (General Physics I)

**Co-Requisites:** None

### **Course Objectives and Student Learning Outcomes:**

When you complete this course, you will be able to do the following:

Identify the magnitude and mechanisms of observed and projected climate change through analysis of climate data and climate models

*Links to Programmatic Learning Outcome P5 and Skill Objectives S2, S3, S5*

Solve quantitative problems describing flows of energy, water and wind through the climate system using calculus and basic physical principles

*Links to Programmatic Learning Outcome P1, and Skill Objectives S1, S4*

Describe and interpret current issues in climate science (Global warming, Drought, El Nino) using physical principles

*Links to Programmatic Learning Outcome P6 and Skill Objectives S16*

Define central concepts in atmospheric science and use these concepts to diagnose large-scale physical processes that determine atmospheric temperature, humidity, wind and precipitation

*Links to Programmatic Learning Outcome P7 and Skill Objectives S1, S4*

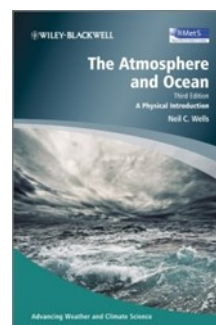
Be able to define and explain mechanisms that drive atmospheric water and energy cycles

*Links to Programmatic Learning Outcome P4 and Skill Objectives S1*

### **Proposed Textbook and Supplies:**

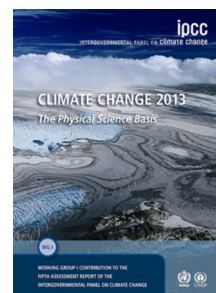
***The Atmosphere and Ocean: A Physical Introduction, Third Edition, 2012***

by Neil C. Wells



### **IPCC, Summary for Policymakers, 5<sup>th</sup> Assessment Report**

Supplemented by online course materials.



## Expected Course Format:

The course will be conducted using a combination of lecture and homework exercises. Work will include:

**Readings from the texts** (plus occasional handouts from the instructor)

**Homework assignments:**

Usually assigned on Friday, due at 11 am the following Wednesday

**Exams:**

3 midterms, 1 final exam, in class.

## Expected Course Requirements and Grading:

|                                  |           |                                                                 |
|----------------------------------|-----------|-----------------------------------------------------------------|
| <b><i>Homework Exercises</i></b> | 40%       | Several homework assignments during the course of the semester. |
| <b><i>Exams</i></b>              | 35% total | Midterm exams (3 exams during semester)                         |
|                                  | 25%       | Final Exam (Comprehensive)                                      |

**Grading Scale:** A+ (97 -100), A (93-96), A- (90-92), B+ (87-89), B (83-86), B- (80-82), C+ (77-79), C (73-76), C- (70-72), D+ (67-69), D (63-66), D- (60-62), F (0-59)

- decimal portions will be rounded up if over 0.5, down if below 0.5

\*\* I reserve the right to modify the strict point system for grading.

## Email / Internet Access Policy:

**All students are required to have a university e-mail account.** We will be using UNM LEARN as a course tool and it requires a UNM NetID account for access. Also, I will email updates/changes to the class and reminders or help for assignments during the duration of the class. You will need to use your UNM email (or forward that email) to get these announcements. **YOU NEED TO USE UNM LEARN IN ORDER TO BE SUCCESSFUL IN THIS CLASS!**

## Accommodation Statement:

Accessibility Services (Mesa Vista Hall 2021, 277-3506) provides academic support to students who have disabilities. If you think you need alternative accessible formats for undertaking and completing coursework, you should contact this service right away to assure your needs are met in a timely manner. If you need local assistance in contacting Accessibility Services, see the Bachelor and Graduate Programs office.

## Draft Schedule of Topics and Course Outline:

| <u>week #</u> | <u>topic</u>                                                                       | <u>chapter from text</u> |
|---------------|------------------------------------------------------------------------------------|--------------------------|
| 1             | Introduction / Energy in the Climate System                                        | 1                        |
| 2             | Solar Energy and its Variability                                                   | 1                        |
| 3             | Structure of Ocean and Atmosphere                                                  | 2                        |
| 4             | Radiation, Temperature and Stability                                               | 3                        |
| 5             | Review / Midterm / Intro to Water in the Atmosphere<br><b>Midterm #1 (Ch. 1-3)</b> |                          |
| 6             | Clouds and Precipitation                                                           | 4                        |
| 7             | Global Energy and Water Budgets                                                    | 5                        |
| 8             | Surface Energy Budgets / Vegetation, Topography and Climate                        | 5                        |
| 9             | Review / Midterm / Intro to Winds and Currents<br><b>Midterm #2 (Ch. 4-5)</b>      |                          |
| 10            | Winds and Currents 6                                                               |                          |
| 11            | Ocean/Atmosphere Interaction and Climate Dynamics                                  | 7                        |
| 12            | Fully Coupled Climate System: Atmosphere, Land, Ocean, Cryosphere                  | 8                        |
| 13            | Review / Midterm / Intro to Climate Change<br><b>Midterm #3 (Ch. 6-8)</b>          | 10 / IPCC                |
| 14            | Climate Variability and Change in the Last 2000 Years                              | 10 / IPCC                |
| 15            | Future Climate Change Projections                                                  | IPCC                     |

## **PROPOSED SYLLABUS**

### **COURSE: ENVS 430L: Advanced Environmental Science**

**Instructor:**

**Email:**

**Office Location:**

**Office Phone:**

**Office Hours:**

**Course Credits:** 4

**Class Meeting Day(s):**

**Class Time:**

**Class Location / Room:**

**Term/Semester:** Spring XX

**Course Description:** The course is designed as a capstone experience for ENVS majors and includes work in the field, laboratory, and classroom. We will divide into groups and focus research on different projects related to Environmental Science.

**Pre-Requisites:** ENVS 324

**Co-Requisites:** None

### **Course Objectives and Student Learning Outcomes:**

When you complete this course, you will be able to do the following:

Students will be able to search, read, and synthesize literature related to Environmental Science, and be able to present this material in a written and oral format.

Links to Programmatic Objectives P7 and Skills Objectives S14, S15, S16.

Students will be able to apply quantitative tools and models to address complex problems in Environmental Science.

Links to Programmatic Objectives P4 and P7, and Skills Objectives S1-S7.

Students will be able to apply common tools used in Environmental Science, such as interpretation of maps, graphs, figures, and box models to enable analysis and synthesis of data collected in the field.

Links to Programmatic objectives P2, P3, and P7 and Skills Objectives S1, S8, S9, S10, S11, S12 and S13.

Students will be able to employ common software for scientific work, such as word processing, spreadsheet programs, and presentation software.

Links to Skills Objectives S3, S10 and S15.

Students will be able to devise and execute an appropriate task plan to solve a complex problem in Environmental Science.

Links to Programmatic Objective P7.

Students will be able to apply principles of ethics in the conduct and application of science, within the academic and professional arenas.

Links to Programmatic Objective P6.

### **Proposed Textbook and Supplies:**

No textbook required. All materials will be available on UNM Learn or handed out.

Useful resources:

*Introduction to Environmental Engineering*, by GM Masters

*Applied Hydrogeology*, by CW Fetter

*Global Environment: Water, Air and Geochemical Cycles*, by Berner and Berner

*Energy: Perspectives, Problems and Prospects*, by MB McElroy

*Selected USGS, other Federal reports, NMED, and NMB regional studies*

## Expected Course Format:

The class meets twice weekly in the classroom for lectures, presentations by students in the course, as well as visiting environmental professionals. Class periods are also used for project introduction, progress reports, and exercise review. Lab periods (one afternoon per week) are utilized for project team work, experiential learning activities, including trips to locations in the Albuquerque area for field exercises or adjourn to analytical laboratories on campus for hands-on exercises working on materials we have collected in the field. Exercises will often be performed by teams, but students are responsible for turning in their own, individual materials and contributing appropriately to team efforts. Other assignments (some requiring reading or web access) will be worked on either in groups or independently (as specified). Materials are turned in weekly. There will be three all-day field trips. Attendance on 2 of the 3 is mandatory.

## Expected Course Requirements and Grading:

Graded aspects of the course consist of class participation, weekly exercises, written materials, and oral presentations.

|                                                     |     |
|-----------------------------------------------------|-----|
| <b><i>Short presentations</i></b>                   | 25% |
| <b><i>Homework assignments and short papers</i></b> | 25% |
| <b><i>Participation</i></b>                         | 15% |
| <b><i>Final Project</i></b>                         | 35% |

**Grading Scale:** A+ (97 -100), A (93-96), A- (90-92), B+ (87-89), B (83-86), B- (80-82), C+ (77-79), C (73-76), C- (70-72), D+ (67-69), D (63-66), D- (60-62), F (0-59)

*- decimal portions will be rounded up if over 0.5, down if below 0.5*

## Email / Internet Access Policy:

**All students are required to have a university e-mail account.** We will be using UNM LEARN as a course tool and it requires a UNM NetID account for access. Also, I will email updates/changes to the class and reminders or help for assignments during the duration of the class. You will need to use your UNM email (or forward that email) to get these announcements. **YOU NEED TO USE UNM LEARN IN ORDER TO BE SUCCESSFUL IN THIS CLASS!**

## Attendance Policy:

The class is participatory, and attendance is required unless you have discussed this with the instructor and we have a mutual agreement BEFOREHAND.

## Accommodation Statement:

Accessibility Services (Mesa Vista Hall 2021, 277-3506) provides academic support to students who have disabilities. If you think you need alternative accessible formats for undertaking and completing coursework, you should contact this service right away to assure your needs are met in a timely manner. If you need local assistance in contacting Accessibility Services, see the Bachelor and Graduate Programs office.

## Draft Course Themes:

Write to the Top! You will write short items as well as long. You should write in a professional style unless otherwise indicated.

Am I making myself clear?: You will speak/present to the class.

Walk the walk and talk the talk: You will make and record measurements and observations in a professional manner.

What's going on?: Project-based learning. Background, measurements, analyze, interpret, model, summarize, present.

Professional Development: Learning the business and ethics of Environmental Science. We will have invited speakers as part

Current user: ctorres / **Comments (7)** / Form Transaction Log**Curriculum Workflow**
[Link to Curricula Forms Process Manual](#)
**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1694


Fields marked with \* are required

Name of Initiator: Rajeshwari Vallury Email: [rvallury@unm.edu](mailto:rvallury@unm.edu) Phone Number: 505 277-4771 Date: 10-07-2015

Associated Forms exist?\* Yes

Initiator's Title\* Director, Women Studies

Faculty Contact\* [rvallury@unm.edu](mailto:rvallury@unm.edu) Administrative Contact\* Jacqueline Alderete

Department\* Women Studies

Admin Email\* [jochoa@unm.edu](mailto:jochoa@unm.edu)

Branch Main Campus

Admin Phone\* 277-3854

Proposed effective term

Semester Fall Year 2016

## Course Information

Select Appropriate Program\* Graduate Degree Program

Name of New or Existing Program\* Graduate Certificate in Women Studies

Select Category\* Certificate Degree Type

Select Action Revision

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[Women Studies Form C Transcribed Certificate Vallury.docx](#)
☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.
**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

The current language in the catalogue related to the 9 credit hours of electives is confusing. The math does not make sense. Women Studies would like to offer graduate students greater flexibility in how they satisfy their elective credits. The administrative structure of Women Studies has changed, and we now have a Graduate Advisor. The information in the current catalogue is a little outdated. A list of approved courses no longer exists!

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)

[Women Studies Form C Transcribed Certificate Budget Justification.docx](#)
☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.

**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)

**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)

Approve and Sign Off

 Send back to Initiator (Rajeshwari Vallury)  
[Comment on this Form](#)

Committee Review



Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001

## **CURRENT CATALOGUE COPY**

### **Graduate Certificate in Women Studies**

Students may present Women Studies as a transcribed graduate certificate with 15 credit hours as follows:

(6 credit hours of required courses): with a 3.0 or higher in WMST 510 Feminist Theories and WMST 512 Feminist Research Methodologies. 9 credit hours of electives approved by Director of WS: 6 credit hours may be taken within the student's program; 6 credit hours must be taken from another department. Students must receive at least a 3.0 in all classes. Other courses may be used upon petition to the Director.

## **PROPOSED REVISIONS**

### **Graduate Certificate in Women Studies**

Students may present Women Studies as a transcribed graduate certificate with 15 credit hours of graduate study as follows:

6 credit hours of required courses with a 3.0 or higher in WMST 510 Feminist Theories and WMST 512 Feminist Research Methodologies, and 9 credit hours of electives approved by the Graduate Advisor of WS. The 9 credit hours of electives may be taken within the program in Women Studies, the student's home department, or in combination with appropriate courses from another department. Students must receive at least a 3.0 in all classes.



Under the proposed revisions, students have the freedom to take their electives in the Women Studies program, in their home department, or another department. The greater flexibility means that students can satisfy their electives from a variety of departments across campus. This places no extra teaching or budgetary constraints upon faculty in Women Studies.

Current user: ctorres / **Comments (8)** / Form Transaction Log**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C  
Form Number: C1695**

Fields marked with \* are required

Name of Initiator: Rikk Murphy Email: [rikk@unm.edu](mailto:rikk@unm.edu) Phone Number: 505-277-5009 Date: 10-09-2015Associated Forms exist?\* Yes  Initiator's Title\* Coordinator Program Advisement, Psych Dept

Faculty Contact\* Katie Witkiewitz

Administrative Contact\* Rikk Murphy

Department\* Psychology

Admin Email\* [rikk@unm.edu](mailto:rikk@unm.edu)

Branch

Admin Phone\* 277-5009

Proposed effective term

Semester  Year **Course Information**Select Appropriate Program\* 

Name of New or Existing Program\* PhD Psychology - Quantitative Methodology Concentration &amp; Emphasis

Select Category\*  Degree TypeSelect Action **Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[Quant Comparison.docx](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

The purpose of the current catalog request is to change out four of the courses in the Quantitative Methodology area to better reflect the current terminology used in the field and to capitalize on the expertise of the current faculty who are available to teach courses within the Quantitative Methodology emphasis. We are also requesting courses numbers for two of the courses that have previously been offered as special topics (PSY 650) courses, but that we expect to teach on a regular basis. In the description of the Quantitative Methodology Concentration we request that the reference to PSY 601 (Multiple Measures) be changed to PSY 601 (Multivariate Statistics). Additionally, for the emphasis we are only updating the course numbers to reflect those that we are or have requested.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[Quant 2015 Course Catalog Changes justification.docx](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[Approve and Sign Off](#)[Send back to Initiator \(Rikk Murphy\)  
Comment on this Form](#)[Committee Review](#)

Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001

**Quantitative Methodology Concentration**

Beyond the departmental core requirements, all Quantitative Methodology students are required to complete PSY 601 (Multiple Measures) and four other courses. At least two of these four courses must be selected from the following list of quantitative courses offered in our Department:

|            |                                        |
|------------|----------------------------------------|
| PSY<br>506 | ST: Seminar in Mathematical Psychology |
| PSY<br>650 | ST: Quasi-Experimental Design          |
| PSY<br>650 | ST: Program Evaluation Research        |
| PSY<br>650 | ST: Structural Equation Modeling       |
| PSY<br>650 | ST: Computer Simulation                |
| PSY<br>650 | ST: Computer Experimental Control      |

At least one, but not more than two, of these courses must be selected from courses in quantitative methods offered by other University of New Mexico departments. The Quantitative Committee maintains a list of extra-departmental courses that may be used to satisfy this requirement; any other course a student wishes to count toward this extra-departmental requirement must be approved by the Quantitative Committee.

**Quantitative Methodology Concentration**

Beyond the departmental core requirements, all Quantitative Methodology students are required to complete PSY 601 (Multivariate Statistics) and four other courses. At least two of these four courses must be selected from the following list of quantitative courses offered in our Department:

|            |                                        |
|------------|----------------------------------------|
| PSY<br>506 | ST: Seminar in Mathematical Psychology |
| PSY<br>604 | Latent Variable Modeling               |
| PSY<br>605 | Adv. Latent Variable Modeling          |
| PSY<br>606 | Analysis of Data                       |
| PSY<br>650 | Meta-Analysis                          |
| PSY<br>650 | ST: Quasi-Experimental Design          |

At least one, but not more than two, of these courses must be selected from courses in quantitative methods offered by other University of New Mexico departments. The Quantitative Committee maintains a list of extra-departmental courses that may be used to satisfy this requirement; any other course a student wishes to count toward this extra-departmental requirement must be approved by the Quantitative Committee.

**Quantitative Methodology Emphasis**

Students in any Psychology concentration, other than Quantitative Methodology, may choose an emphasis in Quantitative Methodology. Students choosing an emphasis in Quantitative Methodology must complete 9 credit hours of graduate coursework in the Quantitative/Methodology area. Any of the following courses may be used to satisfy the requirements for this emphasis. Requests to use other courses are reviewed by the Quantitative Methodology committee on a case-by-case basis.

|             |                                                               |
|-------------|---------------------------------------------------------------|
| PSY<br>650  | ST: Multivariate Statistics                                   |
| PSY<br>650  | ST: Latent Variable Modeling                                  |
| PSY<br>650  | ST: Advanced Latent Variable Modeling                         |
| PSY<br>650  | ST: Analysis of Data                                          |
| PSY<br>650  | ST: Programming in Psychology                                 |
| ECE<br>595  | ST: Analysis Methods in Functional Magnetic Resonance Imaging |
| EDPY<br>606 | Applied Multivariate Statistics                               |
| EDPY<br>607 | Structural Equation Modeling                                  |
| PH 502      | Epidemiologic Methods I                                       |

**Quantitative Methodology Emphasis**

Students in any Psychology concentration, other than Quantitative Methodology, may choose an emphasis in Quantitative Methodology. Students choosing an emphasis in Quantitative Methodology must complete 9 credit hours of graduate coursework in the Quantitative/Methodology area. Any of the following courses may be used to satisfy the requirements for this emphasis. Requests to use other courses are reviewed by the Quantitative Methodology committee on a case-by-case basis.

|             |                                                               |
|-------------|---------------------------------------------------------------|
| PSY<br>601  | Multivariate Statistics                                       |
| PSY<br>604  | Latent Variable Modeling                                      |
| PSY<br>605  | Advanced Latent Variable Modeling                             |
| PSY<br>606  | Analysis of Data                                              |
| PSY<br>650  | ST: Programming in Psychology                                 |
| ECE<br>595  | ST: Analysis Methods in Functional Magnetic Resonance Imaging |
| EDPY<br>606 | Applied Multivariate Statistics                               |
| EDPY<br>607 | Structural Equation Modeling                                  |
| PH 502      | Epidemiologic Methods I                                       |

## Current Catalog Language

STAT 574 Biostatistical Methods: Survival Analysis and Logistic Regression

STAT 576 Multivariate Analysis

STAT 577 Introduction to Bayesian Modeling

STAT 581 Introduction to Time Series Analysis

## Proposed Catalog Language

STAT 574 Biostatistical Methods: Survival Analysis and Logistic Regression

STAT 576 Multivariate Analysis

STAT 577 Introduction to Bayesian Modeling

STAT 581 Introduction to Time Series Analysis

**Budgetary and Faculty Load Implications**

The changes to the course numbers will not require additional budgetary resources or additions to our current faculty. There are no direct implications regarding faculty load. The courses being changed are already being offered in the department.

**Long-Range Planning**

The changes to the course catalog are a reflection of changing terminology in the field and the expertise of the faculty in Psychology. We believe these changes will enable our department to offer the most sophisticated quantitative methodology courses to our students, which will be good for the long term health of our graduate program.

Current user: ctorres / **Comments (8)** / [Form Transaction Log](#)

## Curriculum Workflow

[Link to Curricula Forms Process Manual](#)

### DEGREE/PROGRAM CHANGE FORM C Form Number: C1705



Fields marked with \* are required

Name of Initiator: Gabriella Gutierrez Email: [ggutierr@unm.edu](mailto:ggutierr@unm.edu) Phone Number: 505 277-1971 Date: 10-14-2015

Associated Forms exist?\* Yes Initiator's Title\* Associate Professor: SA+P Architecture Program

Faculty Contact\* Gabriella Gutierrez

Administrative Contact\* John Quale

Department\* Architecture

Admin Email\* [quale@unm.edu](mailto:quale@unm.edu)

Branch

Admin Phone\* 277-3133

Proposed effective term

Semester Spring Year 2016

#### Course Information

Select Appropriate Program\* Graduate Degree Program

Name of New or Existing Program\* Master of Architecture - Plan III

Select Category \* Degree Degree Type Graduate

Select Action Revision

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

Addition of Plan III (course work only) option for completion of graduate degree.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[Justification-2.docx](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[Approve and Sign Off](#)[Send back to Initiator \(Gabriella Gutierrez\)  
Comment on this Form](#)[Committee Review](#)

Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001

**Degree/Program Change Request**

**FORM C (1705)**

**Submitted by Gabriella Gutierrez, Associate Professor**

**School of Architecture and Planning**

**[ggutierr@unm.edu](mailto:ggutierr@unm.edu)**

**October 14, 2015 (revised October 19)**

**Justification for Request:**

To offer the new Plan III (course work only) option to our graduate students in the Master of Architecture Degree Programs in addition to Plan I, and Plan II.

The Master of Architecture in the U.S. is a first professional degree that is accredited by the National Architectural Accrediting Board (NAAB). A first professional degree is required for professional licensure, and as such is appropriate to offer our graduate students the Plan III option (course work only) as a completion requirement for the degree. Plan III would allow more flexibility and diversity as regards outside reviewers of their studio work at the advanced level since it does not have the masters exam committee requirement.

**Impact on long-range planning, budget and workload:**

No measurable impact.



Current user: ctorres / **Comments (6)** / Form Transaction Log**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)
**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1713


Fields marked with \* are required

**Name of Initiator:** Elizabeth Anne Castillo **Email:** [eac@unm.edu](mailto:eac@unm.edu) **Phone Number:** 505 277-5050 **Date:** 10-16-2015  
**Associated Forms exist?\*** Yes **Initiator's Title\*** Admin Assistant 3: Sch Arch Planning Gen Admin  
**Faculty Contact\*** Renia Ehrenfeucht **Administrative Contact\*** Elizabeth Castillo  
**Department\*** Community and Regional Planning Program **Admin Email\*** [eac@unm.edu](mailto:eac@unm.edu)  
**Branch** Sch Architecture and Planning **Admin Phone\*** 277-5050

**Proposed effective term**
 Semester **Fall** Year **2016**
**Course Information**

**Select Appropriate Program\*** Graduate Degree Program  
**Name of New or Existing Program\*** Master of Community and Regional Planning  
**Select Category \*** Degree Degree Type Masters  
 Select Action **Revision**

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***  
 See current catalog for format within the respective college (upload a doc/pdf file)

[Supplement to Form C MCRP Exit Req.pdf](#)
☒ **Does this change affect other departmental program/branch campuses? If yes, indicate below.**
**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

Two associated Form Bs and two associated Form Cs, explained here. Add additional exit requirement option under Plan II, i.e. a capstone studio option to the MCRP degree. Two associated Form Bs are being submitted to create two exit studios: CRP 597, Capstone Planning Studio, variable credit 1CH to 6CH, AND CRP 598, iTown Studio, variable 1CH to 6CH. See attached supplement showing proposed revision in catalog text. Regarding dual degrees, the MCRP degree program has three existing dual degree options with: Master of Arts in Latin American Studies, Master of Public Administration, and Master of Water Resources. All three associated programs have been contacted about the addition of the new exit studio option for the MCRP degree. The Latin American Studies Program would like to include the added exit option in the MALAS/MCRP dual degree curriculum. A separate, concurrent Form C is being submitted by CRP for the MALAS/MCRP dual degree. Water Resources and Public Administration both were contacted about the added exit studio option and declined to have it included in the curriculum of their respective MWR/MCRP and MPA/MCRP dual degrees. Correspondence from both of these programs is attached here in ONE PDF indicating their opt out (MWR correspondence shows first; scroll down in PDF to see MPA correspondence). Another concurrent Form C is being submitted to add a fourth concentration option, Indigenous Planning, to the MCRP degree. Supplement attached here refers to that Form C and is the same supplement attached to that Form C.

[MWR and MPA Correspondence.pdf](#)

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)

[Justification Form C MCRP Exit Req.pdf](#)
☐ **Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**

**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)

**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)

**Approve and Sign Off**
**Send back to Initiator (Elizabeth Anne Castillo)**  
[Comment on this Form](#)
**Committee Review**



## Elizabeth Anne Castillo

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**From:** Renia Ehrenfeucht  
**Sent:** Monday, October 12, 2015 4:24 PM  
**To:** Elizabeth Anne Castillo  
**Subject:** FW: dual degree with crp

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Renia Ehrenfeucht  
Professor + Director  
Community and Regional Planning  
School of Architecture + Planning  
University of New Mexico  
[rehrenfeucht@unm.edu](mailto:rehrenfeucht@unm.edu)

---

**From:** William Fleming <[fleming@unm.edu](mailto:fleming@unm.edu)>  
**Date:** Monday, October 12, 2015 at 4:17 PM  
**To:** Renia Ehrenfeucht <[rehrenfeucht@unm.edu](mailto:rehrenfeucht@unm.edu)>  
**Subject:** Fwd: dual degree with crp

Sent from my iPhone

Begin forwarded message:

**From:** Robert Berrens <[rberrens@unm.edu](mailto:rberrens@unm.edu)>  
**Date:** October 12, 2015 at 3:16:57 PM MDT  
**To:** William Fleming <[fleming@unm.edu](mailto:fleming@unm.edu)>  
**Cc:** Robert Berrens <[rberrens@unm.edu](mailto:rberrens@unm.edu)>  
**Subject:** Re: dual degree with crp

Hi Bill

Thanks for your inquiry. The Water Resources Program (WRP) at UNM offers the interdisciplinary Masters in Water Resources (MWR) degree, and participates with Community and Regional Planning in offering the dual MCRP-MWR degree. As part of the MWR, as well as in the MCRP-MWR, WRP requires that all students take the WR 573 Water Resources III - Field Problems (4 cr) course as part of our core sequence. This course is a field-based course taught by an interdisciplinary group with a STUDIO focus: there are few lectures, a mix of field collection (chemistry, biology, hydrology) and lab testing, students work in groups emphasizing collaborative and cooperative learning, and considerable student responsibility to collectively produce and present the final product -typically a rapid watershed assessment report from the summer field site(s).

Let me know if you need anything else.

Sincerely,

Bob

Robert Berrens  
Director, Water Resources Program

Professor, Department of Economics  
University of New Mexico  
505 250-5989

On 10/12/15 1:40 PM, William Fleming wrote:

Hi Bob,

We are in the process of submitting a form C to add a studio to our exit requirements. As you already require a summer field studio, there is no need to add a CRP studio to the dual degree requirements. Could you please send me an email confirming this? Our director, Renia Ehrenfeucht, would like to attach a note from you to the form C.

Thanks much, Bill

## Elizabeth Anne Castillo

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**From:** Gene Henley  
**Sent:** Thursday, October 22, 2015 11:18 AM  
**To:** Elizabeth Anne Castillo  
**Subject:** RE: Dual MPA-MCRP Guidelines

Liz,  
Thanks for the reminder.  
I believe SPA would opt out at this time.  
We too are currently reviewing our capstone options and until they decide what to do re the Plan III option as well as a couple of other things, I think it's best we not add another issues at this time.

Have a great day and a better week!

Gene V. Henley  
Director of Operations and Advisement  
School of Public Administration  
O) 505.277.1095  
F) 505.277.2529  
C) 505.385.6999  
<http://spa.unm.edu//>

**Please expect a 3 business day response time, not including weekends or holidays.**

**Please include your student ID number and full name in your correspondence.**

IMPORTANT: FERPA guidelines indicate you MUST email from your @unm.edu account if you are a current UNM student. For more information about FERPA, please visit this website: <http://ed.gov/policy/gen/guid/fpco/ferpa/students.html>.

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**From:** Elizabeth Anne Castillo  
**Sent:** Thursday, October 22, 2015 10:48 AM  
**To:** Gene Henley <[ghenley@unm.edu](mailto:ghenley@unm.edu)>  
**Subject:** RE: Dual MPA-MCRP Guidelines

Gene,

Did you get my email RE: MCRP adding a capstone studio exit option? I think Ric at some point told you about this, but basically, we are adding under Plan II a course called CRP 597, Capstone Planning Studio. So, exit requirement options will be: Plan I: CRP 588 (2CH)+CRP 599/Thesis (6CH) –OR– Plan II: CRP 588+CRP 589/Prof Proj (6CH) –OR– Plan II: CRP 588+CRP 597/Capstone Studio (6CH).

The Registrars office told me that each dual degree can either include the new capstone studio option as part of the dual degree, in which case I would submit an extra Form C for that dual degree, OR a dual degree can decline adding the new option, in which case we need some communication from the dual program indicating their opt out. I then would attach that communication of opt out to our lone MCRP Form C.

Please let me know if PADM dual will opt out of the new option, or if you would like me to submit a Form C for MCRP/MPA to add the new option. Thank you.

Liz

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**From:** Gene Henley  
**Sent:** Thursday, October 22, 2015 10:14 AM  
**To:** James Richardson  
**Cc:** Elizabeth Rowe; Elizabeth Anne Castillo  
**Subject:** RE: Dual MPA-MCRP Guidelines

Ric,

Here are the proposed revisions from our meeting yesterday.  
This, I believe, honors the present dual degree approved by both faculties; adjusts the total credit hours to the new 60 credit hour requirement and incorporates the new CRP course.  
Please let me know what you think.

Have a great day and a better week!

Gene V. Henley  
Director of Operations and Advisement  
School of Public Administration  
O) 505.277.1095  
F) 505.277.2529  
C) 505.385.6999  
<http://spa.unm.edu//>

**Please expect a 3 business day response time, not including weekends or holidays.**

**Please include your student ID number and full name in your correspondence.**

IMPORTANT: FERPA guidelines indicate you MUST email from your @unm.edu account if you are a current UNM student. For more information about FERPA, please visit this  
website: <http://ed.gov/policy/gen/guid/fpco/ferpa/students.html>.

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**From:** Elizabeth Anne Castillo  
**Sent:** Monday, October 05, 2015 10:59 AM  
**To:** Gene Henley <[ghenley@unm.edu](mailto:ghenley@unm.edu)>  
**Cc:** James Richardson <[jrich@unm.edu](mailto:jrich@unm.edu)>; Elizabeth Rowe <[erowe@unm.edu](mailto:erowe@unm.edu)>; Renia Ehrenfeucht <[rehrenfeucht@unm.edu](mailto:rehrenfeucht@unm.edu)>  
**Subject:** Dual MPA-MCRP Guidelines

Gene,

Given the recent MCRP change from 50CH to 48CH, with the **MPA/MCRP Dual Degree** going from 62CH to **60CH** (*minus CRP 521, fulfilling two competencies, and adding 3CH of additional electives*), I have revised the numbers and added the competencies language in a 2010 version of the MPA/MCRP Guidelines which I had in my files, highlighting in yellow

where I made changes. Please let me know if you have a more updated document and/or if the one attached here is okay to use. Thanks so much.

Liz

Elizabeth A. Castillo  
Administrative Assistant 3  
Community and Regional Planning Program  
School of Architecture & Planning, MSC04 2530  
1 University of New Mexico  
Albuquerque, NM 87131  
(505) 277-5050  
FAX (505) 277-0076  
Pearl Hall, Room 119

**Justification**

The CRP faculty designed a client-based or community-based studio as an additional exit requirement in response to a suggestion made during the MCRP program's reaccreditation visit. In this studio course, the students will produce professional quality planning deliverables. This will reduce the time students take to complete the degree because some are delayed during the final project and thesis process. The studio will give students an additional way to complete the program while fulfilling the PAB's, the Planning Accreditation Board, exit requirements.

**Budgetary and Workload Implications**

This curriculum change will have no budgetary impact. The CRP program has planned course sequencing and frequency to be able to offer capstone studios with no changes to faculty workload. No additional resources are necessary.



Current user: ctorres / **Comments (7)** / Form Transaction Log**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C  
Form Number: C1714**

Fields marked with \* are required

**Name of Initiator:** Elizabeth Anne Castillo **Email:** [eac@unm.edu](mailto:eac@unm.edu) **Phone Number:** 505 277-5050 **Date:** 10-16-2015  
**Associated Forms exist?\*** Yes **Initiator's Title\*** Admin Assistant 3: Sch Arch Planning Gen Admin  
**Faculty Contact\*** Renia Ehrenfeucht **Administrative Contact\*** Elizabeth Castillo  
**Department\*** Community and Regional Planning Program **Admin Email\*** [eac@unm.edu](mailto:eac@unm.edu)  
**Branch** Sch Architecture and Planning **Admin Phone\*** 277-5050

**Proposed effective term**Semester **Fall** Year **2016****Course Information**

**Select Appropriate Program\*** Undergraduate Degree Program **Name of New or Existing Program\*** Bachelor of Arts Environmental Planning and Design -Landscape Architecture Concentration  
**Select Category \*** Degree Degree Type Bachelors  
 Select Action **Revision**

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***  
 See current catalog for format within the respective college (upload a doc/pdf file)

[Supplement to Form C BAEPD.pdf](#)
☒ **Does this change affect other departmental program/branch campuses? If yes, indicate below.**
**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

[REGISTRAR'S NOTE: THE FORMS B MENTIONED HERE SHOULD HAVE BEEN FORMS A INSTEAD. THE DEPARMENT SUBSEQUENTLY SUBMITTED FORMS A IN PLACE OF THE FORMS B.] This Form C is to add a second concentration option to the BAEPD degree program. The second concentration will be in Landscape Architecture. There are five associated Form Bs to create five new undergraduate course sections in Landscape Architecture, being initiated by that program. See attached supplement showing catalog text revisions. The five associated Form Bs are for the following courses: LA 401, LA 402, LA 458, and LA 481, and LA 482. Other LA courses listed in the attachment already exist. Special Note: included in this Form C, separate from the addition of the L. A. concentration, is the removal of catalog language which states that 9 of the 17CH of BAEPD electives must be upper division course work. Since this is not a UNM requirement, nor a School of Architecture & Planning requirement, the language is being removed so that students may take 17CH of electives at any level. Removal of this language is shown in the attached supplement. CRP Program intends to make this catalog language change in Cascade Workflow, if Curriculum office does not do so, pending approval of this Form C. Correspondence from BAEPD faculty advisor, Prof. Bill Fleming, is attached here confirming removal of this language.

[Correspondence Re BAEPD Electives Language.pdf](#)

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)

[Justification BAEPD Form C.pdf](#)
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**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)

**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)

[Approve and Sign Off](#)[Send back to Initiator \(Elizabeth Anne Castillo\)  
Comment on this Form](#)[Committee Review](#)



**Supplement to Form C: Bachelor of Arts in Environmental Planning & Design  
(Addition of a second concentration)  
Current and Revised Catalog Text**

Note: Revisions in the right hand column appear in **red text**.

| <u>Current Text:</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <u>Revised Text:</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Undergraduate Program</b><br><br><b>Faculty Advisor</b><br>William Fleming<br><br><b>School of Architecture and Planning</b><br><b>Undergraduate Advisor</b><br>Lois Kennedy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Undergraduate Program</b><br><br><b>Faculty Advisor</b><br>William Fleming<br><br><b>School of Architecture and Planning</b><br><b>Undergraduate Advisor</b><br><i>Angela Pacheco [this will be revised during<br/>Cascade catalog editing]</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Degree Offered</b> <ul style="list-style-type: none"><li>• <b>Bachelor of Arts In Environmental Planning and Design (B.A.E.P.D.)</b></li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Degree Offered</b> <ul style="list-style-type: none"><li>• <b>Bachelor of Arts In Environmental Planning and Design (B.A.E.P.D.)</b></li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Introduction</b> <p>The Bachelor of Arts in Environmental Planning and Design (B.A.E.P.D.) at the University of New Mexico is an undergraduate course of study related to the graduate degree in Community and Regional Planning (CRP). Environmental planning encompasses systematic and creative methods used to influence and respond to dynamic changes occurring in neighborhoods, cities, and entire regions throughout the world. Planners assist communities in formulating policies and plans to meet their social, economic, environmental, cultural, and physical needs.</p> <p>In the American Southwest, human strategies for adapting to arid conditions have been</p> | <b>Introduction</b> <p>The Bachelor of Arts in Environmental Planning and Design (B.A.E.P.D.) at the University of New Mexico is an undergraduate course of study related to the graduate <b>degrees in Community and Regional Planning (CRP) and Landscape Architecture (LA)</b>. Environmental planning encompasses systematic and creative methods used to influence and respond to dynamic changes occurring in neighborhoods, cities, and entire regions throughout the world. Planners assist communities in formulating policies and plans to meet their social, economic, environmental, cultural, and physical needs.</p> <p>In the American Southwest, human strategies for adapting to arid conditions have been</p> |

evolving for thousands of years. They represent many different cultural perspectives, complex social histories, and rich practical learning that are vital for current and future survival. The B.A.E.P.D. offers students the opportunity to engage in socially and environmentally relevant skill building and to address the issues of an evolving social and cultural landscape.

Opportunities for Environmental Planners exist in a variety of governmental, non-profit, and private for-profit settings. Graduates have been hired in tribal, local, state, regional, and national planning and design offices. At the national level, graduates work for the National Park Service, the U.S. Forest Service, the National Resources Conservation Service, the Peace Corps, Los Alamos National Laboratories, the U.S. Department of Transportation, environmental advocacy organizations, and university facility planning departments. B.A.E.P.D. graduates may advance to a graduate program or to work for state agencies, community-based organizations, community development foundations, or private planning firms concentrating in environmental analysis, geographic information systems, and community health planning.

Students in the B.A.E.P.D. program complete a total of 120 credit hours. The course of study consists of 37 credit hours from the University of New Mexico Core plus: 1 credit hour of science laboratory (as a prerequisite to the program), 33 credit hours of B.A.E.P.D. core courses, 32 credit hours of Community and Regional Planning Concentration courses, and 17 credit hours of electives (at least 9 credit hours of electives must be upper-division course work).

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Students in the B.A.E.P.D. program complete a total of 120 credit hours. The course of study consists of 37 credit hours from the University of New Mexico Core plus: 1 **additional** credit hour of science laboratory, ~~(as a prerequisite to the program)~~, 33 credit hours of B.A.E.P.D. core courses, 32 credit hours of **concentration courses**, and 17 credit hours of electives. ~~(at least 9 credit hours of electives must be upper-division course work).~~

## Admissions

Application packets are due in the School of Architecture and Planning undergraduate advisor's office by April 15 (for Fall admission) or November 15 (for Spring admission) of each year. To apply, a student must have completed a minimum of 26 hours of the UNM Core and/or B.A.E.P.D. Core, including ENGL 120 (with a C or better). The packet consists of an application form, which can be obtained from the School of Architecture and Planning undergraduate advisor, Room 117 in George Pearl Hall, or at the [School of Architecture and Planning Web site](#). Students must also submit a two-page statement of intent indicating how the degree will be beneficial, and an unofficial transcript. Transfer students must also include their transfer courses and exam credits from their LoboTrax degree audit in LoboWeb. Students must have at least a 2.5 GPA. Students are required to either be taking or have taken either CRP 165 Introduction to Community and Regional Planning, or CRP 181 Introduction to Environmental Problems, at the time of their application.

## Degree Requirements

Students must complete the UNM Core requirements (37 credit hours) in accordance with the catalog selection options. Courses taken to fulfill UNM Core requirements may not also be used to fulfill B.A.E.P.D. Core requirements. UNM Core selections must include the following:

|  |                               | Credit Hours |
|--|-------------------------------|--------------|
|  | Physical and Natural Sciences |              |

## Admissions

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## Degree Requirements

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|  |                               | Credit Hours |
|--|-------------------------------|--------------|
|  | Physical and Natural Sciences |              |

|                            |                                                                                           |           |
|----------------------------|-------------------------------------------------------------------------------------------|-----------|
|                            | 2 courses, both including labs                                                            | 8         |
|                            | <b>Social and Behavioral Sciences</b>                                                     |           |
| CRP 181                    | Introduction to Environmental Problems                                                    | 3         |
| PSY 105<br>-or-<br>SOC 101 | General Psychology<br><br>Introduction to Sociology                                       | 3         |
| ARCH 121                   | Introduction to Architecture                                                              | 3         |
|                            | <b>Total for UNM Core, plus extra science lab</b>                                         | <b>38</b> |
|                            | <b>B.A.E.P.D. Core Requirements</b>                                                       |           |
| CRP 165                    | Community and Regional Planning, Introduction                                             | 3         |
| CRP 376                    | Human Settlements                                                                         | 3         |
| CRP 482                    | Graphic Communications                                                                    | 3         |
| CJ 225                     | Small Group Communication                                                                 | 3         |
| CRP 483                    | Introduction to Geographic Information Systems                                            | 3         |
|                            | Introduction to Research Methods (from any department)                                    | 3         |
|                            |                                                                                           | <b>18</b> |
|                            | <b>Physical World (Select One)</b>                                                        |           |
| SUST 134                   | Creating a Sustainable Future: Introduction to Environmental, Social, and Economic Health | 3         |
| GEOG 195                   | Humans Role in Changing the Face of the Earth                                             | 3         |
| GEOG 352                   | Global Climate Change                                                                     | 3         |
| GEOG 365                   | Nature and Society                                                                        | 3         |

|                            |                                                                                           |           |
|----------------------------|-------------------------------------------------------------------------------------------|-----------|
|                            | 2 courses, both including labs                                                            | 8         |
|                            | <b>Social and Behavioral Sciences</b>                                                     |           |
| CRP 181                    | Introduction to Environmental Problems                                                    | 3         |
| PSY 105<br>-or-<br>SOC 101 | General Psychology<br><br>Introduction to Sociology                                       | 3         |
| ARCH 121                   | Introduction to Architecture                                                              | 3         |
|                            | <b>Total for UNM Core, plus extra science lab</b>                                         | <b>38</b> |
|                            | <b>B.A.E.P.D. Core Requirements</b>                                                       |           |
| CRP 165                    | Community and Regional Planning, Introduction                                             | 3         |
| CRP 376                    | Human Settlements                                                                         | 3         |
| CRP 482 OR LA 482          | Graphic Communications                                                                    | 3         |
| CJ 225                     | Small Group Communication                                                                 | 3         |
| CRP 483                    | Introduction to Geographic Information Systems                                            | 3         |
|                            | Introduction to Research Methods (from any department)                                    | 3         |
|                            |                                                                                           | <b>18</b> |
|                            | <b>Physical World (Select One)</b>                                                        |           |
| SUST 134                   | Creating a Sustainable Future: Introduction to Environmental, Social, and Economic Health | 3         |
| GEOG 195                   | Humans Role in Changing the Face of the Earth                                             | 3         |
| GEOG 352                   | Global Climate Change                                                                     | 3         |
| GEOG 365                   | Nature and Society                                                                        | 3         |

|              |                                                            |   |
|--------------|------------------------------------------------------------|---|
| EPS<br>**333 | Environmental Geology<br>(Prerequisites, check<br>Catalog) | 3 |
|              |                                                            | 3 |
|              | <b>Philosophy and Ethics</b><br>(Select One)               |   |
| ANTH<br>340  | Topics in Cultural<br>Anthropology                         | 3 |
| CJ 268       | Media Theories                                             | 3 |
| PHIL<br>202  | From Descartes to Kant                                     | 3 |
| PHIL<br>245  | Professional Ethics                                        | 3 |
| PHIL<br>363  | Environmental Ethics                                       | 3 |
| AMST<br>182  | Introduction to Environment,<br>Science and Technology     | 3 |
|              |                                                            | 3 |
|              | <b>Art and Design</b> (Select One)                         |   |
| ARCH<br>109  | Design Fundamentals                                        | 3 |
| ARTH<br>250  | Modern Art                                                 | 3 |
| ARTS<br>141  | Introduction to Art and<br>Ecology                         | 3 |
| ARTS<br>187  | Introduction to Photography                                | 3 |
| ARTS<br>320  | The Phenomena of Color                                     | 3 |
|              |                                                            | 3 |
|              | <b>Social and Political<br/>Dimensions</b> (Select One)    |   |
| CRP<br>435   | Community Economics for<br>Planners                        | 3 |
| CRP<br>470   | Sem: Ecotourism and<br>Community Development               | 3 |
| CRP<br>487   | Political Economy of Urban<br>Development                  | 3 |
| POLS<br>270  | Public Policy and<br>Administration                        | 3 |

|              |                                                            |   |
|--------------|------------------------------------------------------------|---|
| EPS<br>**333 | Environmental Geology<br>(Prerequisites, check<br>Catalog) | 3 |
|              |                                                            | 3 |
|              | <b>Philosophy and Ethics</b><br>(Select One)               |   |
| ANTH<br>340  | Topics in Cultural<br>Anthropology                         | 3 |
| CJ 268       | Media Theories                                             | 3 |
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|              |                                                            | 3 |
|              | <b>Art and Design</b> (Select One)                         |   |
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| ARTS<br>187  | Introduction to Photography                                | 3 |
| ARTS<br>320  | The Phenomena of Color                                     | 3 |
|              |                                                            | 3 |
|              | <b>Social and Political<br/>Dimensions</b> (Select One)    |   |
| CRP<br>435   | Community Economics for<br>Planners                        | 3 |
| CRP<br>470   | Sem: Ecotourism and<br>Community Development               | 3 |
| CRP<br>487   | Political Economy of Urban<br>Development                  | 3 |
| POLS<br>270  | Public Policy and<br>Administration                        | 3 |

|          |                                                                    |           |          |                                                                    |           |
|----------|--------------------------------------------------------------------|-----------|----------|--------------------------------------------------------------------|-----------|
| POLS 280 | Introduction to Political Analysis                                 | 3         | POLS 280 | Introduction to Political Analysis                                 | 3         |
|          |                                                                    | <b>3</b>  |          |                                                                    | <b>3</b>  |
|          | <b>Ethnic and Gender Studies</b><br>(Select One)                   |           |          | <b>Ethnic and Gender Studies</b><br>(Select One)                   |           |
| CRP 428  | Gender and Economic Development                                    | 3         | CRP 428  | Gender and Economic Development                                    | 3         |
| CRP 473  | Planning on Native American Lands                                  | 3         | CRP 473  | Planning on Native American Lands                                  | 3         |
| CRP 486  | Planning Issues in Chicano Communities                             | 3         | CRP 486  | Planning Issues in Chicano Communities                             | 3         |
| AMST 330 | Topics in Gender Studies                                           | 3         | AMST 330 | Topics in Gender Studies                                           | 3         |
| AMST 350 | Topics in Race, Class, Ethnicity                                   | 3         | AMST 350 | Topics in Race, Class, Ethnicity                                   | 3         |
|          |                                                                    | <b>3</b>  |          |                                                                    | <b>3</b>  |
|          | <b>Total for B.A.E.P.D. Core</b>                                   | <b>33</b> |          | <b>Total for B.A.E.P.D. Core</b>                                   | <b>33</b> |
|          |                                                                    |           |          | <i><b>Choose One of the Following Degree Concentrations:</b></i>   |           |
|          | <b>Community and Regional Planning Concentration Requirements:</b> |           |          | <b>Community and Regional Planning Concentration Requirements:</b> |           |
| CRP 265  | Sustainable Community Planning Methods                             | 3         | CRP 265  | Sustainable Community Planning Methods                             | 3         |
| CRP 330  | Introduction to Urban Design                                       | 3         | CRP 330  | Introduction to Urban Design                                       | 3         |
| CRP 420  | Environmental Design Studio                                        | 5         | CRP 420  | Environmental Design Studio                                        | 5         |
| CRP 427  | Watershed Management                                               | 3         | CRP 427  | Watershed Management                                               | 3         |
| CRP 467  | Regional Planning Process and Theory                               | 3         | CRP 467  | Regional Planning Process and Theory                               | 3         |
| CRP 472  | Indigenous Planning                                                | 3         | CRP 472  | Indigenous Planning                                                | 3         |
| CRP 474  | Cultural Aspects of Community Development Planning                 | 3         | CRP 474  | Cultural Aspects of Community Development Planning                 | 3         |
| CRP 480  | Community Growth and Land Use Planning                             | 3         | CRP 480  | Community Growth and Land Use Planning                             | 3         |



|                              |                                                                               |            |                              |                                                                                                              |            |
|------------------------------|-------------------------------------------------------------------------------|------------|------------------------------|--------------------------------------------------------------------------------------------------------------|------------|
| ECON 105<br>-or-<br>ECON 106 | Introduction to Macroeconomics<br><br>Introduction to Microeconomics          | 3          | ECON 105<br>-or-<br>ECON 106 | Introduction to Macroeconomics<br><br>Introduction to Microeconomics                                         | 3          |
|                              | One Statistics course in any discipline                                       | 3          |                              | One Statistics course in any discipline                                                                      | 3          |
|                              | <b>Total for CRP Concentration</b>                                            | <b>32</b>  |                              | <b>Total for CRP Concentration</b>                                                                           | <b>32</b>  |
|                              | <div style="text-align: center;"> ↓<br/> [Continued below] </div>             |            |                              | <b>Landscape Architecture Concentration Requirements:</b>                                                    |            |
|                              |                                                                               |            | LA 401                       | Landscape Architecture Design Studio I                                                                       | 6          |
|                              |                                                                               |            | LA 402                       | Landscape Architecture Design Studio II                                                                      | 6          |
|                              |                                                                               |            | LA 461                       | History & Theory of Landscape Architecture                                                                   | 3          |
|                              |                                                                               |            | LA 335                       | Site-Environment                                                                                             | 3          |
|                              |                                                                               |            | LA 481                       | Landscape Construction Materials & Techniques                                                                | 3          |
|                              |                                                                               |            | LA 458                       | Plant Materials                                                                                              | 3          |
|                              |                                                                               |            | LA 421                       | AutoCAD for Landscape Architects                                                                             | 3          |
|                              |                                                                               |            |                              | 5 credit hours of additional course work in either Community and Regional Planning or Landscape Architecture | 5          |
|                              |                                                                               |            |                              | <b>Total for Landscape Architecture Concentration</b>                                                        | <b>32</b>  |
|                              |                                                                               |            |                              |                                                                                                              |            |
|                              | <b>Electives</b> (at least 9 credit hours must be upper-division course work) | <b>17</b>  |                              | <b>Electives</b> ( <del>at least 9 credit hours must be upper-division course work</del> )                   | <b>17</b>  |
|                              | <b>Total for B.A.E.P.D. Degree</b>                                            | <b>120</b> |                              | <b>Total for B.A.E.P.D. Degree</b>                                                                           | <b>120</b> |

**Long Range Planning**

The inclusion of a Landscape Architecture concentration in the BAEPD provides an option within the program for students to build skills and knowledge in the physical design of the environment. Graduates of the program who have completed the LA concentration will have the opportunity to pursue a two-year Master of Landscape Architecture professional degree. Since there is no undergraduate program in Landscape Architecture in the State of New Mexico this option will attract additional students into the BAEPD program, increasing undergraduate as well as graduate credit hours in the School of Architecture and Planning.

**Budget**

The courses identified in the Landscape Architecture concentration mirror the courses that students entering the three-year graduate program with no design background complete in their first year. All of the courses are currently being taught. Initially the undergraduate sections will be taught with the graduate sections, with a distinction made in the course requirements for the two student cohorts. As undergraduate student numbers increase the first courses to be taught as separate sections will be the two studios, LA 401 and LA 501. In the foreseeable future all of the other courses will be taught as combined sections. Initially, and even with separate studio sections, there are no additional budget requirements, and faculty loads among full and part-time instructors can be effectively re-distributed to absorb these courses.

## Elizabeth Anne Castillo

---

**From:** William Fleming  
**Sent:** Wednesday, October 07, 2015 7:38 AM  
**To:** Elizabeth Anne Castillo  
**Subject:** Re: BAEPD Electives Language in Catalog

Hi Liz  
Yes I would like to have it removed.  
Thanks Bill

Sent from my iPhone

On Oct 6, 2015, at 3:06 PM, Elizabeth Anne Castillo <[eac@unm.edu](mailto:eac@unm.edu)> wrote:

Hi, Bill,

For upcoming curriculum forms, I mentioned to Renia, CC'd here, the BAEPD issue of catalog language reading "9 of the 17 elective credit hours must be upper division." She asked me to confirm with you if we, indeed, should remove this language, since we found out it is not a UNM requirement.

Please let me know if you would like the upper division language removed from the catalog. Thanks,

Liz

**Long Range Planning**

The inclusion of a Landscape Architecture concentration in the BAEPD provides an option within the program for students to build skills and knowledge in the physical design of the environment. Graduates of the program who have completed the LA concentration will have the opportunity to pursue a two-year Master of Landscape Architecture professional degree. Since there is no undergraduate program in Landscape Architecture in the State of New Mexico this option will attract additional students into the BAEPD program, increasing undergraduate as well as graduate credit hours in the School of Architecture and Planning.

**Budget**

The courses identified in the Landscape Architecture concentration mirror the courses that students entering the three-year graduate program with no design background complete in their first year. All of the courses are currently being taught. Initially the undergraduate sections will be taught with the graduate sections, with a distinction made in the course requirements for the two student cohorts. As undergraduate student numbers increase the first courses to be taught as separate sections will be the two studios, LA 401 and LA 501. In the foreseeable future all of the other courses will be taught as combined sections. Initially, and even with separate studio sections, there are no additional budget requirements, and faculty loads among full and part-time instructors can be effectively re-distributed to absorb these courses.

Current user: ctorres / **Comments (7)** / Form Transaction Log**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C  
Form Number: C1715**

Fields marked with \* are required

Name of Initiator: Colleen Sheinberg Email: [colleens@unm.edu](mailto:colleens@unm.edu) Phone Number: 505 277-8401 Date: 10-16-2015Associated Forms exist?\*  Initiator's Title\* Temp Parttime Faculty: Music

Faculty Contact\* Colleen Sheinberg

Administrative Contact\* Steven Block

Department\* Music

Admin Email\* [sblock@unm.edu](mailto:sblock@unm.edu)

Branch

Admin Phone\* 277-2126

Proposed effective term

Semester  Year **Course Information**Select Appropriate Program\* 

Name of New or Existing Program\* Bachelor of Arts in Music

Select Category\*  Degree Type UndergraduateSelect Action **Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[BA Text chgs.pdf](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

In an effort to comply with the university's desire for degrees that call for only 120 hours credit, we are reducing the number of electives in the Bachelor of Arts in Music. The degree plan will still call for the same number of hours in the major field of Music.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[BA in Music-Impact.pdf](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[Approve and Sign Off](#)[Send back to Initiator \(Colleen Sheinberg\)  
Comment on this Form](#)[Committee Review](#)

Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001

## Supplement to Form C: Bachelor of Arts in Music

### Current and Revised Catalog Text

#### [Current text]:

The Bachelor of Arts with a major in Music is designed for the study of music within a liberal arts curriculum. For the student who is not seeking a professional music degree but who desires a solid foundation in the study of music, the areas of musicianship, performance and history provide the core of courses toward a basic intellectual grasp of the art. Students who additionally seek to major in other areas (double major) or to take a large number of courses in a pre-professional program (pre-law, pre-medical, etc.) are encouraged to enroll in the Bachelor of Arts in Music. The Bachelor of Arts in Music cannot be used as a major in combination with the Bachelor of Music. The Bachelor of Arts in Music is permitted as a major in combination with the Bachelor of Music Education.

#### 1. Courses outside the major:

- a. 40 hours selected from courses offered by the departments of the College of Arts and Sciences, including Core Curriculum requirements (see Fine Arts Graduation Requirements 6). Specific requirements include ENGL 220.
- b. 6 hours selected from Fine Arts outside the major, including 3 hours chosen from Art History 101, 201, 202; Dance 105; Media Arts 210; Theatre 105 or one 3-credit studio course offered by the Departments of Art and Art History, Theatre and Dance or Media Arts.
- c. 20 additional hours selected from courses offered by any college, including Fine Arts, but not including courses in Music or Music Education.

---

|                 |           |
|-----------------|-----------|
| <b>Subtotal</b> | <b>66</b> |
|-----------------|-----------|

#### 2. Courses within the major:

- a. six semesters of MUS 101 Concert Music with a grade of CR
- b. 16 hours in music theory: 150, 150L, 152, 152L, 250, 250L, 252, 252L
- c. 6 hours in music history: 361 and 362
- d. 4 hours in ensemble (See Ensemble Requirements for specific requirements)
- e. 4 hours of applied music in the principal instrument or voice
- f. 18 hours of music electives (not including courses for non-majors) selected with advisement of appropriate music faculty. No more than an additional 4 hours of ensemble credit nor an additional 12 hours of applied music can be applied toward the degree.

---

|                 |           |
|-----------------|-----------|
| <b>Subtotal</b> | <b>48</b> |
|-----------------|-----------|

3. **Additional courses in any field, including music** (but not including courses for non-majors), selected with advisement of appropriate faculty, 14 hours.

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|                 |           |
|-----------------|-----------|
| <b>Subtotal</b> | <b>14</b> |
|-----------------|-----------|

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|              |            |
|--------------|------------|
| <b>Total</b> | <b>128</b> |
|--------------|------------|

#### [Revised text]:

The Bachelor of Arts with a major in Music is designed for the study of music within a liberal arts curriculum. For the student who is not seeking a professional music degree but who desires a solid foundation in the study of music, the areas of musicianship, performance and history provide the core of courses toward a basic intellectual grasp of the art. Students who additionally seek to major in other areas (double major) or to take a large number of courses in a pre-professional program (pre-law, pre-medical, etc.) are encouraged to enroll in the Bachelor of Arts in Music. The Bachelor of Arts in Music cannot be used as a major in combination with the Bachelor of Music. The Bachelor of Arts in Music is permitted as a major in combination with the Bachelor of Music Education.

#### 1. Courses outside the major:

- a. 40 hours selected from courses offered by the departments of the College of Arts and Sciences, including Core Curriculum requirements (see Fine Arts Graduation Requirements 6). Specific requirements include ENGL 220.
- b. 6 hours selected from Fine Arts outside the major, including 3 hours chosen from Art History 101, 201, 202; Dance 105; Media Arts 210; Theatre 105 or one 3-credit studio course offered by the Departments of Art and Art History, Theatre and Dance or Media Arts.
- c. 20 additional hours selected from courses offered by any college, including Fine Arts, but not including courses in Music or Music Education.

---

|                 |           |
|-----------------|-----------|
| <b>Subtotal</b> | <b>66</b> |
|-----------------|-----------|

#### 2. Courses within the major:

- a. six semesters of MUS 101 Concert Music with a grade of CR
- b. 16 hours in music theory: 150, 150L, 152, 152L, 250, 250L, 252, 252L
- c. 6 hours in music history: 361 and 362
- d. 4 hours in ensemble (See Ensemble Requirements for specific requirements)
- e. 4 hours of applied music in the principal instrument or voice
- f. 18 hours of music electives (not including courses for non-majors) selected with advisement of appropriate music faculty. No more than an additional 4 hours of ensemble credit nor an additional 12 hours of applied music can be applied toward the degree.

---

|                 |           |
|-----------------|-----------|
| <b>Subtotal</b> | <b>48</b> |
|-----------------|-----------|

3. **Additional courses in any field, including music** (but not including courses for non-majors), selected with advisement of appropriate faculty, [6 hours.]

---

|                 |            |
|-----------------|------------|
| <b>Subtotal</b> | <b>[6]</b> |
|-----------------|------------|

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|              |              |
|--------------|--------------|
| <b>Total</b> | <b>[120]</b> |
|--------------|--------------|

**Supplement to Form C  
for  
Bachelor of Arts in Music**

Justification, Planning, Budget, Faculty Workload

Justification for the Concentration:

N/A. The concentration already exists.

Impact on Long-Range Planning:

It is hoped that the reduction in total number of credit hours will make the Bachelor of Arts in Music a more attractive degree plan and will result in an increase in the number of students pursuing the degree.

Budget Analysis and Faculty Workload Implications

There will be no impact on the budget. No new courses are being proposed.

Current user: ctorres / **Comments (9)** / Form Transaction Log**Curriculum Workflow**
[Link to Curricula Forms Process Manual](#)
**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1721


Fields marked with \* are required

Name of Initiator: Rikk Murphy Email: [rikk@unm.edu](mailto:rikk@unm.edu) Phone Number: 505-277-5009 Date: 10-20-2015

Associated Forms exist?\* No Initiator's Title\* Coordinator Program Advisement, Psych Dept

Faculty Contact\* Jane Ellen Smith

Administrative Contact\* Rikk Murphy

Department\* Psychology

Admin Email\* [rikk@unm.edu](mailto:rikk@unm.edu)

Branch

Admin Phone\* 277-5009

Proposed effective term

Semester Fall Year 2016

**Course Information**

Select Appropriate Program\* Graduate Degree Program

Name of New or Existing Program\* Ph.D. in Psychology with M.S. Enroute

Select Category \* Degree Degree Type PhD

Select Action Revision

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[Grad Concentration Comparison.docx](#)
☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.
Reason(s) for Request\* (enter text below or upload a doc/pdf file)  
see attached
[Reason for Request.docx](#)
**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)
[Justification.docx](#)
☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.
**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[Approve and Sign Off](#)[Send back to Initiator \(Rikk Murphy\)  
Comment on this Form](#)[Committee Review](#)

Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001



**Ph.D. in Psychology with M.S. Enroute**

**Concentrations:** Clinical Psychology; Cognition, Brain and Behavior; Developmental Psychology; Evolutionary Psychology; Health Psychology; and Quantitative/Methodology. Each student is required to select a concentration.

**Emphases:** Health Psychology, Quantative Methodology. The emphases are an options for students in any concentration except for those in the same name.

Students interested in the Graduate Program are advised to have at least 15 credit hours in psychology, including one course in psychological statistics and either a laboratory course or independent research in psychology.

Although the Department awards the M.S. degree under **Plan I** (with thesis) according to the regulations set forth in earlier pages of this catalog, all screening of new applicants is done in terms of entry for the Ph.D. program. The department admits new students to the graduate program only for the fall semester of each year; exceptions to this procedure are rare. Since competition for the few available openings each year is strong, only students with excellent academic records as well as first-rate letters of recommendation are likely to succeed in gaining admission.

Graduate Record Examination (GRE) General Test scores are required as part of the application procedure. The GRE Psychology Subject test, although strongly recommended, is not required as part of the application procedure.

General requirements for the Ph.D. are set forth in earlier pages of this catalog. Regulations include a minimum of 48 credit hours of graduate credit (precise requirements depends upon area) with a

**Ph.D. in Psychology with M.S. Enroute**

**Concentrations:** Clinical Psychology; Cognition, Brain and Behavior; Developmental Psychology; Evolutionary Psychology; Health Psychology; and Quantitative/Methodology. Each student is required to select a concentration.

**Emphases:** Health Psychology, Quantitative Methodology. The emphases are options for students in any concentration except for those of the same name.

Students interested in the Graduate Program are advised to have at least 15 credit hours in psychology, including one course in psychological statistics and either a laboratory course or independent research in psychology.

Although the Department awards the M.S. degree under **Plan I** (with thesis) according to the regulations set forth in earlier pages of this catalog, all screening of new applicants is done in terms of entry for the Ph.D. program. The department admits new students to the graduate program only for the fall semester of each year; exceptions to this procedure are rare. Since competition for the few available openings each year is strong, only students with excellent academic records as well as first-rate letters of recommendation are likely to succeed in gaining admission.

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General requirements for the Ph.D. are set forth in earlier pages of this catalog. Regulations include a minimum of 48 credit hours of graduate credit (precise requirements depend upon area) with a

grade point average of 3.0 (B) or better, exclusive of thesis and dissertation credit hours; satisfactory performance on the doctoral comprehensive examination; and a dissertation accepted by the final oral examining committee.

The Department of Psychology considers both teaching and research to be essential aspects of doctoral training and, therefore, requires that all candidates have such experiences during their tenure. These requirements apply regardless of whether remuneration for such activities is received.

### **The Breadth Requirement**

To ensure a breadth of training all students are required to complete a 12 credit hour (generally four graduate courses) breadth requirement. In addition to course work in the concentration, all doctoral students must complete History and Systems (511), and 9 credit hours (generally three graduate courses) of approved course work in an area outside of the student's concentration. These courses can be taken inside or outside the Department, but they **must** be outside the concentration, and they must be scholarly in nature. Clinical students satisfy the breadth requirement through the training requirements of the APA.

### **The Collateral Requirement**

To satisfy the departmental requirement of a foreign language or comparable alternative requirement, students use the computer labs (503L and 504L) associated with the Statistics (501) and Experimental Design (502) courses, respectively.

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grade point average of 3.0 (B) or better, exclusive of thesis and dissertation credit hours; satisfactory performance on the doctoral comprehensive examination; and a dissertation accepted by the final oral examining committee.

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### **The Breadth Requirement**

To ensure a breadth of training all students are required to complete a 12 credit hour (generally four graduate courses) breadth requirement. These courses can be taken inside or outside the Department, but they **must** be outside the concentration, and they must be scholarly in nature. Clinical students satisfy the breadth requirement through the training requirements of the APA.

### **The Collateral Requirement**

To satisfy the departmental requirement of a foreign language or comparable alternative requirement, students use the computer labs (503L and 504L) associated with the Statistics (501) and Experimental Design (502) courses, respectively.

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**Required Core Courses (All Concentrations)**

The following core courses are required in addition to any courses required in the student's concentration.

|                                                                                                                                                                | Credit<br>Hours |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| <b>First Year: Fall Semester</b>                                                                                                                               |                 |
| PSY 501 Advanced Statistics                                                                                                                                    | 3               |
| PSY 503L Advanced Statistics Lab                                                                                                                               | 1               |
| PSY 505 Research Seminar                                                                                                                                       | 2               |
| PSY 551 Graduate Problems                                                                                                                                      | 1-3             |
| <b>First Year: Spring Semester</b>                                                                                                                             |                 |
| PSY 502 Design and Analysis of Experiments                                                                                                                     | 3               |
| PSY 504L Design and Analysis of Experiments Lab                                                                                                                | 1               |
| PSY 551 Graduate Problems                                                                                                                                      | 1-3             |
| Additional required course that is sometimes taken during the first year:                                                                                      |                 |
| PSY 511 History and Systems of Psychology                                                                                                                      | 3               |
| <b>Note:</b> This course does <i>not</i> have to be taken during a student's first year, but it must be taken prior to a student's comprehensive examinations. |                 |
| <b>Second Year: Spring Semester</b>                                                                                                                            |                 |
| PSY 507 Teaching Seminar                                                                                                                                       | 2               |
| <b>Note:</b> This course <i>must</i> be taken prior to a teaching a course within the department.                                                              |                 |

**Required Core Courses (All Concentrations)**

The following core courses are required in addition to any courses required in the student's concentration.

|                                                                                                 | Credit<br>Hours |
|-------------------------------------------------------------------------------------------------|-----------------|
| <b>First Year: Fall Semester</b>                                                                |                 |
| PSY 501 Advanced Statistics                                                                     | 3               |
| PSY 503L Advanced Statistics Lab                                                                | 1               |
| PSY 505 Research Seminar                                                                        | 2               |
| PSY 551 Graduate Problems                                                                       | 1-3             |
| <b>First Year: Spring Semester</b>                                                              |                 |
| PSY 502 Design and Analysis of Experiments                                                      | 3               |
| PSY 504L Design and Analysis of Experiments Lab                                                 | 1               |
| PSY 551 Graduate Problems                                                                       | 1-3             |
| <b>Second Year: Spring Semester</b>                                                             |                 |
| PSY 507 Teaching Seminar                                                                        | 1               |
| <b>Note:</b> This course <i>must</i> be taken prior to teaching a course within the department. |                 |

#### Reason for the Request

The department has decided to remove the requirement for PSY 511—History and Systems. After lengthy discussion, the faculty has determined that the information in PSY 511 is thoroughly covered in other courses. We have updated the Breadth Requirement as a result so there is no loss in overall credit hours required.

#### Justification, Impact, Budget, Faculty load

After lengthy discussion, the Psychology Department faculty has determined that the information in PSY 511—History and Systems is thoroughly covered in other courses and creates a redundancy for our students. The overall required credit hours or the Breadth requirement will not change as the Breadth requirement remains at 12 hours; students will just need to submit an additional course in place of PSY 511.

Additionally, the department requested that the credit hours for PSY 507-Teaching Seminar be reduced from two to one. This request (form A3392) was approved by the Registrar on 16 October 2015.

There is no impact on planning, budget or faculty load.

Current user: ctorres / **Comments (8)** / Form Transaction Log**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C  
Form Number: C1722**

Fields marked with \* are required

Name of Initiator: Rikk Murphy Email: [rikk@unm.edu](mailto:rikk@unm.edu) Phone Number: 505-277-5009 Date: 10-20-2015

Associated Forms exist?\* Yes ▾ Initiator's Title\* Coordinator Program Advisement, Psych Dept

Faculty Contact\* Elizabeth Yeater

Administrative Contact\* Rikk Murphy

Department\* Psychology

Admin Email\* [rikk@unm.edu](mailto:rikk@unm.edu)

Branch

Admin Phone\* 277-5009

Proposed effective term

Semester Fall ▾ Year 2016 ▾

**Course Information**

Select Appropriate Program\* Graduate Degree Program ▾

Name of New or Existing Program\* PhD Psychology - Clinical Concentration

Select Category \* Concentration ▾ Degree Type

Select Action Revision ▾

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[Clinical Comparison.docx](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)  
see attached[Clinical Reason.docx](#)**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[Justification.docx](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[Approve and Sign Off](#)[Send back to Initiator \(Rikk Murphy\)  
Comment on this Form](#)[Committee Review](#)

Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001

**Clinical Psychology Concentration**

Clinical students begin their core sequence in clinical psychology during their first year. The clinical core sequence is presented in the department's Guidelines for Graduate Students.

Beyond the departmental required courses, clinical students are required to complete the following courses:

|            |                                                                   | <b>Credit<br/>Hours</b> |
|------------|-------------------------------------------------------------------|-------------------------|
| PSY<br>532 | Seminar in Psychopathology                                        | 3                       |
| PSY<br>533 | Psychological Evaluation: Cognitive and Neuropsychology Functions | 3                       |
| PSY<br>534 | Psychological Evaluation Practicum                                | 3                       |
| PSY<br>535 | Psychological Evaluation: Personality Functions                   | 3                       |
| PSY<br>538 | Introduction to Clinical Science                                  | 3                       |
| PSY<br>602 | Pre-Clinical Practicum                                            | 1                       |
| PSY<br>603 | Case Formulation Practicum                                        | 3                       |
| PSY<br>610 | Case Conference Practicum                                         | 1                       |

**Clinical Psychology Concentration**

Clinical students begin their core sequence in clinical psychology during their first year. The clinical core sequence is presented in the department's Guidelines for Graduate Students.

Beyond the departmental required courses, clinical students are required to complete the following courses:

|            |                                                                   | <b>Credit<br/>Hours</b> |
|------------|-------------------------------------------------------------------|-------------------------|
| PSY<br>531 | Pre-Clinical Practicum                                            | 1                       |
| PSY<br>532 | Seminar in Psychopathology                                        | 3                       |
| PSY<br>533 | Psychological Evaluation: Cognitive and Neuropsychology Functions | 3                       |
| PSY<br>535 | Psychological Evaluation: Personality Functions                   | 3                       |
| PSY<br>538 | Introduction to Clinical Science                                  | 3                       |
| PSY<br>610 | Case Conference Practicum                                         | 1                       |
| PSY<br>631 | Psychotherapy Practicum                                           | 1-3                     |

## Current Catalog Language

|            |                                                             |     |
|------------|-------------------------------------------------------------|-----|
| PSY<br>631 | Psychotherapy Practicum                                     | 1-3 |
| PSY<br>634 | Ethics and Professional Issues in Clinical Psychology       | 3   |
| PSY<br>636 | Diversity Multicultural Perspectives in Clinical Psychology | 3   |
| PSY<br>637 | Empirically Supported Treatments                            | 3   |
| PSY        | Plus three approved Clinical Electives                      | 9   |

There are additional courses required to satisfy the American Psychological Association (APA) foundation requirements. Current APA foundation requirements along with courses that may be used to satisfy them are presented in the department's Guidelines for Graduate Students.

## Proposed Catalog Language

|            |                                                             |    |
|------------|-------------------------------------------------------------|----|
| PSY<br>634 | Ethics and Professional Issues in Clinical Psychology       | 3  |
| PSY<br>636 | Diversity Multicultural Perspectives in Clinical Psychology | 3  |
| PSY<br>637 | Empirically Supported Treatments                            | 3  |
| PSY        | Plus four approved Clinical Electives                       | 12 |

There are additional courses required to satisfy the American Psychological Association (APA) foundation requirements. Current APA foundation requirements along with courses that may be used to satisfy them are presented in the department's Guidelines for Graduate Students.



The department is reducing redundancy in our coursework and shortening the time to completion rate for our students by deleting two course requirements, substituting an elective for the PSY 511--History and Systems requirement (the department has made a separate Form C request—C1721 to remove the PSY 511 requirement for all our students), and updating a course number (PSY 602—Pre-clinical Practicum; Form A3441) to align it with our course numbering system.

## Justification

During our recent site visit with the American Psychological Association, a number of recommendations were made to increase the efficiency of our Clinical graduate program. The APA visitors noted instances of redundancy in some of our coursework and that we have a high time-to-completion rate (7.5 years, compared to 5 years at many other institutions). To address these issues the Clinical program faculty is seeking to make several changes in the program including the elimination of three courses from the Clinical program requirements (PSY 511—History and Systems, PSY 534—Psychological Evaluation Practicum, and PSY 603—Case Formulation Practicum). The Clinical faculty concluded that the material in these courses is well covered in other required courses. The requirement for PSY 511—History and Systems is being eliminated across the department. In its place, the Clinical program will require an additional elective course.

## Long-range Planning, Faculty impact.

There is no impact regarding long-range planning except that in making these changes the Clinical program's schedule can be a little more flexible in the courses it offers. The instructors of the courses being eliminated will be offering different courses in their place.

Current user: ctorres / **Comments (7)** / Form Transaction Log**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C  
Form Number: C1723**

Fields marked with \* are required

Name of Initiator: Stephanie Forrest Email: [forrest@unm.edu](mailto:forrest@unm.edu) Phone Number: 505 277-7104 Date: 10-21-2015Associated Forms exist?\*  Initiator's Title\* Professor: Computer Science

Faculty Contact\* Melanie Moses

Administrative Contact\* April Davidson

Department\* Computer Science

Admin Email\* [april@unm.edu](mailto:april@unm.edu)

Branch Main

Admin Phone\* 277-1421

Proposed effective term

Semester  Year **Course Information**Select Appropriate Program\* 

Name of New or Existing Program\* CS 108L UNM Core Course (NEW)

Select Category\*  Degree Type UGSelect Action **Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[catalog-entry.txt](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

The requested change would add CS 108L to the UNM Science Core. Quantitative modeling has become an essential part of every natural science. Computation is now recognized as the third pillar of science along with theory and experiment. There are no existing courses dedicated to teaching computation in the UNM core.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[unm-core-justification-cs4All-pgk2.pdf](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[Approve and Sign Off](#)[Send back to Initiator \(Stephanie Forrest\)  
Comment on this Form](#)[Committee Review](#)

Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001

***CS 108L CS4All***  
***Introduction to Computational Science and Modeling***

Justification for adding CS 108L to the UNM Core Curriculum  
October 30, 2015

## Overview

CS 108L, Introduction to Computational Science and Modeling, is proposed to be in the Science area (Area 3: Physical and Natural Sciences) of the UNM core.

## 1 Rationale and Justification

Quantitative modeling has become an essential part of every natural science, and it is spreading quickly to the social sciences. Computational modeling is increasingly important as large data sets have become available and computers have become powerful enough to simulate complex mathematical models. Access to these new tools by today's students requires Computational Thinking, to understand the models they will be using in their work and to adapt them to new problems and domains. Computational thinking is a way of conceptualizing problems, going beyond simply programming a computer. It includes thinking at multiple levels of abstraction, decomposing a problem into subparts, understanding data representations, and using algorithms to design generic solutions to problems. These skills, along with basic competence in computer programming, are central to success in all STEM disciplines.

Computation is now recognized as the third pillar of science along with theory and experiment. CS4All provides an integrated experience, centered around scientific modeling as a new form of laboratory science, to bring these skills to all science students at UNM, and further making computational modeling available to all students, rather than expecting students to seek out intensive programming classes in computer science.

The NSF-funded NM-CS4All Program (a collaboration between the Santa Fe Institute Learning Lab and UNM Computer Science) developed Computer Science for All (UNM CS 108L) that explores interdisciplinary complex adaptive systems concepts and introduces computational thinking and programming through computer modeling and simulation. The existing CS 108L dual credit course uses a hybrid model, with online content provided through UNM and on-site high school teachers who lead modeling labs in their local high schools.

CS 108L has been taught continuously since 2008. While 85% of Computer Science majors nationwide are white males, a remarkable 75% of students in CS4All are from groups underrepresented in Computer Science (36% of students were female, 25% Native American, 17% Hispanic, and 21% of multiple races including an underrepresented group). Computer modeling and simulation were demonstrated to be an engaging way to introduce computational thinking while making explicit the relevance of Computer Science to STEM for discovery, analysis, innovation and modeling.

**Benefit to UNM students:** There are currently no computer science classes in the UNM core. Very few UNM graduates ever take a computer science class, and far less than 1% of UNM students major in Computer Science (CS). CS 108L does not compete directly with any existing UNM core

course or with other departments. Computational skills lead to excellent opportunities for students in the work force and in graduate programs in STEM disciplines.

## 2 Impact on Long-range Planning

The CS 108L hybrid course represents a novel educational model in the UNM core, which leverages the scalability of online lectures and effectiveness of small-group supervised intensive laboratory exercises. Success will require that CS 108L and the hybrid model be developed into a self-sustaining course with adequate instructional support, IT support, computer labs, and assessment tools. For example, TAs in the hybrid model will have greater responsibilities than is standard for large introductory courses, as they will be responsible for nearly 100% of the student contact hours by supervising the intensive computer laboratory sessions and holding extended office hours. To facilitate this transformation, the CS Department is seeking a \$1 million Howard Hughes Medical Institute (HHMI) grant titled *Transforming STEM Education through Computational Modeling*. In addition to supporting the integration of CS 108L into the UNM Core, the grant would also provide funds for developing related curricula, e.g., standalone computational modules tailored to specific STEM disciplines and a more intensive experience for students in the Honors College.

## 3 Current and predicted enrollments for the next three years

300 high school students have already earned UNM dual credit through for CS108L in the 2012 - 2014 school years, and 125 students are enrolled in the current (Fall 2015) semester. Based on this experience and our examination of enrollment numbers for core courses in other UNM STEM departments, we project enrollment after 5 years to be approximately 600 students per year. For Year 1, we propose to begin modestly by offering two sections each semester (25 students per section) for a total of 100 students in the first year. The plan is to increase enrollments gradually throughout the 5-year period, depending on demand, TA availability, and computer lab space.

## 4 Budget/Faculty Load Impact

The resource commitment includes:

- Faculty: At steady-state, the course will require 1/6 faculty line for instructor of record, oversight and development of course content, assessment, TA training and oversight, and handling student issues, e.g., academic integrity. Many existing tenure track faculty and lecturers are qualified to teach the course. In the early years, especially until the Program Coordinator is hired, the course will require 1/3 faculty line to make sure that all the executable content runs as expected, hire and manage T.A.'s, and manage course assessments and other logistics.
- Program Coordinator: 1/2-time course coordinator, to hire, train, and manage TAs, arrange for computer laboratories, install software, and handle other course logistics. This position will not be needed in Year 1, but will be added as the course grows to more sections. Anticipated budget is \$20,000 per year.
- Teaching Assistants: 1 TA per 25 students. Their workload includes 3 hours of student contact in computer lab, 3 hours of lab prep and training, 4 office hours, and 8-10 hours of grading and course assessment (25 programs per week, 20 minutes per program + assessment rubrics). Anticipated budget is \$8,000 - \$11,000 per TA per semester including TA salary

and tuition (variation reflects salary and tuition differences for CS TAs at different academic stages).

- Computer Lab and IT support for NetLogo software: Each section of 25 students requires 3 hours of dedicated computer lab time per week. Thus, in Year 1, the class will need 6 hours per week of computer lab time for 100 students, scaling up to 36 hours per week for 600 students per year in Year 5.

## 5 Syllabus and Materials

The complete syllabus for CS 108L is online and available at <http://www.cs4all.org/nm-cs108L-FINAL>.

A summary of course topics is repeated here:

- Week 1: Introduction to NetLogo
- Week 2: Introduction to Computational Thinking
- Week 3: Introduction to Abstraction
- Week 4: Introduction to Modeling
- Week 5: Boolean Logic
- Week 6: Variables and Scope
- Week 7: Running Experiments with Computer Models
- Week 8: Review and Midterm Exam
- Week 9: Algorithms
- Week 10: More Algorithms
- Week 11: Recursion
- Week 12: Epidemic Modeling
- Week 13: Ecosystem Modeling
- Week 14/15: Project Work
- Week 16: Review and Final Exam

## 6 HED Competencies

*Area 3 Physical and Natural Sciences, HED Competencies*

1. Describe the process of scientific inquiry.

Each week of the class, students complete a program or model in which they must specify a set of rules, examine the outcome, test hypotheses and analyze data. For example, in Week 6, students build an ecosystem simulation to explore predator-prey dynamics among sharks, fish and plankton. Here they experiment with the probability of plankton occurrence to understand how that affects fish and subsequently shark populations. In this process, they rely on the evidence built into their own model, as the HED states rather than “authority, tradition, doctrine, or intuition.”

2. Solve problems scientifically.

For this competency, students are expected to solve problems using methods that would be used by scientists in their discipline. Again, the laboratory exercises that the students must complete each week test this skill. For example, in Week 9, students explore the efficiency of the algorithms they develop. Students create programs that remove green patches from an image, they are challenged to do this in less than 1700 steps, and the fewer steps they take, the more points they earn. Similarly in Week 10 students design, implement and experiment with sorting algorithms in an attempt to find a fast algorithm. Students test which approach is fastest. Computer scientists in the real world are continually plagued with issues of efficiency in the devices they create and the applications that run on those devices, worrying about battery life, latency, and calculation times.

3. Communicate scientific information.

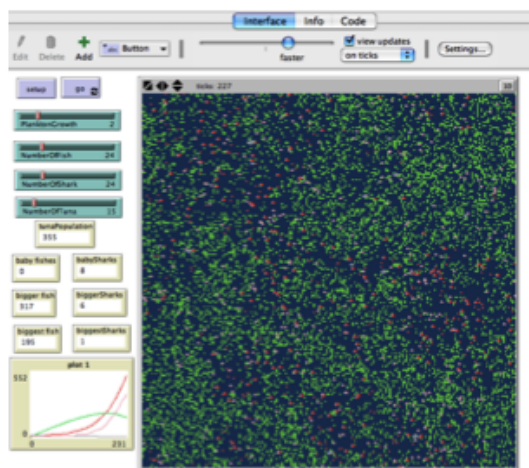
The ability to provide a clear and concise explanation of each program and how to use and experiment with it is assessed in every assignment. Students must explain the reasoning and methodology behind the models they develop, as well as things to notice and experiment with, using the built in “Info” explanation panel in NetLogo. An example is shown in Figure 1. Students must also write code that is adequately “commented,” that is, it has built in documentation explaining what each part of a program does. Communication is an explicitly graded component of each laboratory exercise.

4. Apply quantitative analysis to scientific problems.

Quantitative analysis is a core competency when describing complex systems and computational models. Although many of the models used in the class are relatively simple, the analysis techniques learned are similar versions of what scientists do with actual data every day. For example, in Week 12, students create an epidemic model, understanding how disease could spread across a population, and how doctors or hospitals could limit that spread. In this assignment students need to analyze the output of their models, including creating graphs representing the numbers of healthy and sick agents over time.

5. Apply scientific thinking to real world problems.

Finally, students are asked to critically analyze processes and data related to real world problems they investigate throughout the class. From readings of real case studies to studying disease and ecosystems through their models, each of the programming assignments relates to a contemporary scientific problem. Additionally, students are exposed to the academic research of many of the faculty in the UNM CS Department through short case study videos of CS faculty.



Interface

Info

Code

Find... Edit

### WHAT IS IT?

This computer model is trying to show turtles called fishes, sharks, tuna and green patches called plankton in an ecosystem. This model shows the fishes and tuna eating the plankton, dying, gaining energy while eating and getting bigger. This is the same for the sharks except they eat the fish and tuna! They will also reproduce if they have the required energy amount. Likewise the plankton is eaten and regrows depending on the rate of the slider.

### HOW IT WORKS

The agents (patches, turtles, etc.) follow variable commands to modify the energy, how much they eat, when they die, how much they grow, how much energy is lost and received and when they reproduce. Boolean commands are used by using 'if' statements to scatter random patches (plankton) and to check how much energy a fish, tuna or shark has to set its size.

### HOW TO USE IT

To start click the setup button to place blue patches as ocean, green patches as plankton and add fishes, tuna and sharks. The plankton growth can be modified by using the PlankGrowth slider. The number of fishes and tuna can be modified with NumberOfFish slider and NumberOfTuna slider. The number of sharks can be modified with with NumberOfShark slider. Then click 'go' to activate the fishes, tuna and shark interaction and plankton growth.

### THINGS TO NOTICE

Look at the counters that keeps track of the different size fish and shark. After clicking the go button the fish eats plankton leaving a blue patch of ocean. Plankton regrows depending on the PlanktonGrowth slider. Notice the graph that shows the number of births and deaths among the fish and shark population, as well as the plankton amount.

### THINGS TO TRY

Try moving the slider and changing the rate the plankton regrows.

Try moving the NumberOfFish slider to change the number of fish at the initial setup.

Try moving the NumberOfShark slider to change the number of shark at the initial setup.

Try moving the NumberOfTuna slider to change the number of tuna at the initial setup.

Use the speed slider on top of the interface to see the fishes interact in the environment at any speed and see them grow.

Figure 1: Example student ecosystem model written in the Netlogo programming language. The left panel shows the interactive interface for experimentation and the right panel shows the “Info” tab with the student’s written explanation of how the program works, how it should be used and things to notice and experiment with.



## 7 Example “Annual Report on Assessment”

### UNM General Education Core Curriculum Course Level Assessment Plan Template

College/School/Branch Name: School of Engineering

Department Name: Computer Science

Dept. Assessment Contact: Lance Williams

UNM Core Area this template is being filled out for: Area 3 Physical and Natural Sciences

This template is based on the established procedure for compilation and aggregation of assessment data as part of the UNM Computer Science ABET (Accreditation Board for Engineering and Technology) accreditation.

1. Course Number and Title: CS 108L, Introduction to Computational Science and Modeling  
**Sample Student Learning Outcomes (SLOs):**

- (a) SLO 1: Students learn the fundamental computer science concept of abstraction.

Abstraction represents the essential features of a problem while suppressing the details of underlying representations or calculations. Students learn that abstraction allows them to model large complex systems more easily. For example, many computer languages allow the user to draw a square on screen. This is abstracted in the sense that you do not write a program that literally changes the color of each LED in that square region, but rather set the dimensions of the square and a color, and some other system deals with deciding which LEDs to set in what parts of the screen.

Addresses UNM/HED Area III

Competencies: i, iii

- (b) SLO 2: Students are introduced to the concept of algorithms and expand their knowledge of looping.

By exposing students to algorithms and loops, students begin to see the building blocks of how larger programs can be developed. Loops allow code to be executed repeatedly. So, instead of writing code which is repetitive, students build conditions into their programs that determine how often or how many times a certain segment of code should be executed.

Addresses UNM/HED Area III

Competencies: ii, iii

- (c) SLO 3: Students explore Sorting Algorithms and learn about Agentsets and Lists.

Sorting algorithms and data structures are two additional fundamental building blocks

of computer science. Sorting algorithms take basic concepts like lists and loops, and show how different methods for looping through a list of items allow for different speeds in sorting that list. Certain algorithms can be understood to be more or less efficient, and importantly the students measure, analyze, and report on those different efficiencies.

Addresses UNM/HED Area III

Competencies: i, ii, iii, iv

- (d) SLO 4: Students explore algorithms further by learning about search algorithms which are commonly used in our world today (i.e., by Google). Students explore how algorithms are analyzed and are introduced to the important computer science concept of recursion.

By understanding search algorithms, students get another taste of how simple algorithms power many of the technologies we use every day. This helps them to see how the knowledge they are acquiring in CS108L can be applied in real-world systems. Students gain an appreciation for recursion by building fractal trees using a recursive algorithm to see how elaborate designs can be created using only a few simple lines of code.

Addresses UNM/HED Area III

Competencies: iii, iv, v

- (e) SLO 5: Students form teams to develop modeling projects. The students will pick a problem to model, abstract the problem, develop the model and run experiments by executing the model.

The final projects in CS 108L help students develop an assignment that cuts across all five of the HED science competencies. They develop a problem to model, design the model for that problem in NetLogo, and analyze and write a short report on the model.

Addresses UNM/HED Area III

Competencies: i, ii, iii, iv, v

### *Area 3 Physical and Natural Sciences, HED Competencies*

- i. Describe the process of scientific inquiry.
- ii. Solve problems scientifically.
- iii. Communicate scientific information.
- iv. Apply quantitative analysis to scientific problems.
- v. Apply scientific thinking to real world problems.

2. *How will each SLO be assessed? Please describe the assignment (essay, test, presentation, etc). Will all the SLOs be assessed in one assignment or several? As evidence, please attach a blank copy of the assessment instrument(s) and the rubric(s) used for scoring.*

Each of the SLOs above are aligned with a different week of class. Each week of class (when there is not an exam) there is also a programming challenge.

For example, the first SLO above on understanding the concept of abstraction is linked with Week 3 of the curriculum. In that week there are six video lectures: one on the concept of abstraction, one on representing colors in computers, two on CS constructs (local variables, introduction to looping), and two on higher level topics that connect these questions to real world problems. The programming assignment that week involves creating spiraling art, reminiscent of physical spirograph toys. The rubric for that week is shown here (as an example):

**Grading Rubric [20 points total]:**

[A: 1 points]: Submit one file to your instructor: NetLogo source code with the file name: W3.firstname.lastname.nlogo.

[B: 2 points]: The first few lines of your code tab are comments including your name, the date, your school, and the assignment name (Lab 3: Spiraling Art using a Repeat Loop).

[C: 2 points]: The code in the code tab of your program is appropriately documented with “inline comments.”

[D: 5 points]: Your program includes a description of what your program does in the Info tab. Please describe the over all program, each procedure and anything else you want someone to know about your program!

[E: 5 points]: When the user loads your program and clicks the “setup” button followed by the “go” button, your program draws an image that uses at least one repeat loop that repeats at least 100 times drawing at least one line each iteration (there must be at least one line of code in the command block of each repeat loop). You are unique and your drawing should be unique too! To get any of these points, your drawing must be different from the drawing made by every other student in your class section.

[F: 5 points]: The procedure in your “go” button uses at least one let statement AND there is at least one set statement in the repeat loop. The variable changed in the set statement must be used in at least one of the following: forward, right, left, or setxy command.

Each week of the class has detailed information on the learning objective of that week, the complete videos, the programming assignments, and other related information. For a complete listing of each week’s information, see: <http://www.cs4all.org/nm-cs108L-FINAL>

3. *How will the results of assessment in this course be compiled and aggregated? That is, explain where the results will be collected and stored at the end of each semester and who will compile and aggregate the results for sharing and reporting.*

| Assessment E: An understanding of professional, ethical, legal and social issues and responsibilities. |                                                                          |                     |              |                |               |                               |
|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|---------------------|--------------|----------------|---------------|-------------------------------|
| Assessment Point:                                                                                      | 293 Social and Ethical Issues in Technology                              |                     |              |                |               |                               |
| Assessment Semester:                                                                                   | Fall 2015                                                                |                     |              |                |               |                               |
| Assessment Instrument                                                                                  | <Description of instrument used to perform assessment and date assessed> |                     |              |                |               |                               |
| Overall Assessment: $E = \max(E1, \min(E2, E3, E4, E5))$                                               |                                                                          |                     |              | #DIV/0!        |               |                               |
|                                                                                                        | E1                                                                       | E2                  | E3           | E4             | E5            | Individual Student Assessment |
| Population                                                                                             | ACM Code of Conduct                                                      | Class Participation | Legal Issues | Ethical Issues | Social Issues |                               |
| 0                                                                                                      |                                                                          |                     |              |                |               |                               |
| Average Score:                                                                                         | #DIV/0!                                                                  | #DIV/0!             | #DIV/0!      | #DIV/0!        | #DIV/0!       |                               |
| Excellent [4.5, 5.0]                                                                                   | #DIV/0!                                                                  | #DIV/0!             | #DIV/0!      | #DIV/0!        | #DIV/0!       |                               |
| Improvement Desired [2.5, 4.5]                                                                         | #DIV/0!                                                                  | #DIV/0!             | #DIV/0!      | #DIV/0!        | #DIV/0!       |                               |
| Unacceptable [1, 2.5]                                                                                  | #DIV/0!                                                                  | #DIV/0!             | #DIV/0!      | #DIV/0!        | #DIV/0!       |                               |
| Student Data                                                                                           | 1                                                                        |                     |              |                |               |                               |
|                                                                                                        | 2                                                                        |                     |              |                |               |                               |
|                                                                                                        | 3                                                                        |                     |              |                |               |                               |
|                                                                                                        | 4                                                                        |                     |              |                |               |                               |
|                                                                                                        | 5                                                                        |                     |              |                |               |                               |
|                                                                                                        | 6                                                                        |                     |              |                |               |                               |
|                                                                                                        | 7                                                                        |                     |              |                |               |                               |
|                                                                                                        | 8                                                                        |                     |              |                |               |                               |
|                                                                                                        | 9                                                                        |                     |              |                |               |                               |
|                                                                                                        | 10                                                                       |                     |              |                |               |                               |
|                                                                                                        | 11                                                                       |                     |              |                |               |                               |
|                                                                                                        | 12                                                                       |                     |              |                |               |                               |
|                                                                                                        | 13                                                                       |                     |              |                |               |                               |
|                                                                                                        | 14                                                                       |                     |              |                |               |                               |
|                                                                                                        | 15                                                                       |                     |              |                |               |                               |

Figure 2: Example assessment document for CS 293, ABET Requirement E

The UNM CS department already has an established and clear procedure for compilation and aggregation of assessment data and information. As part of our ABET (Accreditation Board for Engineering and Technology) accreditation, we conduct semesterly assessments across our undergraduate curriculum. The assessment of CS 108L would simply be added to this assessment schedule. The faculty of record for the class would be in charge of compiling assessments from across the course TAs and adding them to our current system. A screenshot of that system is shown here, with an example assessment from our ABET process.

4. *How will the results of the assessment in this course be shared with faculty for analysis and discussion? Evidence for this step must be provided. Provide a paragraph addressing the following questions:*

- **Who will share the aggregated results to faculty?**

CS 108L will have a faculty instructor of record for the course who is dedicated to oversight and development of the content and student success (detailed above). This faculty member will provide the results of the annual assessment to the faculty.

- **Who will participate in the analysis?**

The analysis will be led by the faculty instructor of record and will involve all of the TAs who helped to run the lab sections, and those professors who have contributed to content updates. There will be additional input from the Computer Science Department Undergraduate Curriculum Committee.

- **How will discussions of analysis be recorded and communicated?**

Discussions of the analysis will be recorded within the minutes of the Undergraduate Curriculum Committee (UCC). All of the UCC assessment discussions have minutes taken as part of the department's ABET accreditation and assessment process.

- **Who will collect and store evidence of discussions of analysis? Where?**

UCC assessment discussions have minutes taken as part of the department's ABET accreditation and assessment process. These discussions, the assessments themselves, ABET rubrics, graduate degree rubrics, as additional rubrics (we would add the CS 108L rubrics) are all stored online, in a drive that UCC members, as well as other faculty members who are required to assess areas of our program, have access to.

5. How will results of assessment in this course be used for improvement? Evidence for this step must be provided. (This is known as closing the feedback loop and it is an essential component of assessment.) Provide a paragraph addressing the following questions:

- **Who participates in this discussion/decision-making?**

The same participants who are involved in the analysis will be involved in the discussion and decision-making around course improvements. This process, along with all undergraduate-related curricular changes, will be led by the Undergraduate Curriculum Committee (UCC). When changes are proposed for CS 108L they will be discussed by the faculty who have participated in creating the video lectures for the course, as well as current (and possibly past) TAs. Other members of the department, or faculty members whose students take the course (particularly in Biology, Chemistry, Physics) who are interested in suggesting improvements aimed at benefiting their students will of course be welcomed and their input will be solicited.

- **How will recommendations be recorded and communicated?**

The faculty of record for CS 108L will be responsible for leading the process of taking recommendations from (and written by) the UCC and applying them to the course materials. For changes to the laboratory/programming exercises, these changes may be made by the TAs with supervision of the faculty member, but all TAs and others teaching and using the course materials would be notified of the changes.

Due to the distributed nature of this class (video lectures and online programming assignments which are used by the TAs and students at UNM, but also others in the community and high schools across the state) we intend to specifically "version" the course materials. That means updates to the materials will be well-documented on the website, and each update will include a set of "release notes" detailing any changes and updates to the materials, available for all to see.

- **When will this discussion/decision making take place? (i.e., at the end of each semester, at the end of the Spring semester, etc.)**

Each semester the UCC meets to review assessments complete in the past semester. CS108L would join this list of assessments to review.

Additionally, every sixth year our department is re-evaluated for our ABET accreditation. At this point we re-evaluate our curriculum as a whole and in future cycles CS108L would also be included in this discussion. Allowing us to not just evaluate the course as a stand-alone entity, but how it relates to the overall goals of UNM Computer Science education more broadly.

- **Who will collect and store evidence of course improvement? Where?**

These materials will be collected and stored just as assessments and UCC meeting minutes are on, in the online assessment space. The faculty of record will be in charge of completing the UNM core course assessment form based on these materials and with an aim to highlight specific improvements based on the assessment data.

Current user: ctorres / **Comments (9)** / Form Transaction Log**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C  
Form Number: C1727**

Fields marked with \* are required

Name of Initiator: Tina Armijo Email: [tmarmijo@unm.edu](mailto:tmarmijo@unm.edu) Phone Number: 505 277-1890 Date: 10-23-2015

Associated Forms exist?\* Yes Initiator's Title\* Unit Administrator Anderson Academic Accounting

Faculty Contact\* Leslie Oakes

Administrative Contact\* Tina Armijo

Department\* Anderson School of Management

Admin Email\* [tmarmijo@unm.edu](mailto:tmarmijo@unm.edu)

Branch MAIN

Admin Phone\* 277-1890

Proposed effective term

Semester Spring Year 2016

**Course Information**

Select Appropriate Program\* Graduate Degree Program

Name of New or Existing Program\* Master of Accounting - Advanced Concentration

Select Category \* Concentration Degree Type

Select Action Revision

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[Advanced Accounting Catalog Description.docx](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

This change will allow all of the MACCT concentrations (Advanced, Tax and Information Assurance) to be more in line with each other. All students will have a basic core of courses they must take and then they will have a list of additional specific concentration related courses they can choose from. MGMT 635 to be added to core now since will be an AACSB requirement in the near future.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[Form C - MACCT Advanced 2015.docx](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)**Approve and Sign Off****Send back to Initiator (Tina Armijo)  
Comment on this Form****Committee Review**

Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001

## Advanced Accounting

This concentration is designed for individuals who have already earned a B.B.A. with a concentration in accounting. The Advanced Concentration consists of five graduate core accounting courses, a minimum of four graduate accounting courses and two approved graduate accounting or business electives.

Course requirements: Students must take the following 15 credit hours of accounting coursework: MGMT 546, 554, 555, 635 and one from the following tax courses: MGMT 547, 590, 591, 592, or 593. At least 12 additional credit hours of accounting coursework can come from the following: MGMT 548, 553, 559, 594 (special topics in accounting only), 640 and 643.

The GMAT/GRE is waived for students who have an undergraduate major in accounting from an AACSB-accredited school with a minimum of a 3.25 GPA in both upper-division classes and accounting classes. Students must fulfill all other admission requirements.



## FORM C Degree/Program Change

Anderson School of Management internal approval form

Name of Initiator: Tina Armijo Email: tmarmijo@unm.edu Date: 3/18/2015

Phone: 277-1890 Initiator's Rank/Title: Unit Administrator

Associated Forms Exist: ☒ Yes ☐ No

Faculty Contact: Leslie Oakes Administrative Contact: Tina Armijo

Department: Department of Accounting

Admin Email: tmarmijo@unm.edu Admin Phone: 277-1890

Branch: Main

Proposed effective term Semester: Spring Year: 2016

### Course Information

Circle Program: UG ☒ GR

Name of new or existing program:

Select Category: Degree Major Minor **Concentration**  
Certificate Emphasis Department Subject code  
UG Core Course

Degree type: Masters of Accountancy

Select Action: New **Revision** Deletion Name Change

Exact Title and Requirements as they should appear in the catalog:

#### **Advanced Accounting**

This concentration is designed for individuals who have already earned a B.B.A. with a concentration in accounting. The Advanced Concentration consists of five graduate core accounting courses, a minimum of four graduate accounting courses and two approved graduate accounting or business electives.

Course requirements: Students must take the following 15 credit hours of accounting coursework: MGMT 546, 554, 555, 635 and one from the following tax courses: MGMT 547,

590, 591, 592, or 593. At least 12 additional credit hours of accounting coursework can come from the following: MGMT 548, 553, 559, 594 (special topics in accounting only), 640 and 643.

The GMAT/GRE is waived for students who have an undergraduate major in accounting from an AACSB-accredited school with a minimum of a 3.25 GPA in both upper-division classes and accounting classes. Students must fulfill all other admission requirements.

Does this change affect other departmental program/branch campuses? Yes \_\_\_\_ No X

Reason(s) for request:

This change will allow all of the MACCT concentrations (Advanced, Tax and Information Assurance) to be more in line with each other. All students will have a basic core of courses they must take and then they will have a list of additional specific concentration related courses they can choose from. MGMT 635 is being added to the core now to fulfill an upcoming AACSB requirement of a Data Analytics course in the program.

Statements that include justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications:

Two of the new courses, Advance Auditing and Data Analytics (currently Decision & Business Intelligence Systems) will put the program in line with newer AACSB standards in addition to giving the students a better well rounded accounting education. By students taking the same basic core they will be more successful sitting for the CPA in New Mexico and surrounding states. There will be one additional adjunct hired to teach the Advanced Auditing course one semester a year and a shift in scheduling will allow for a current accounting professor to teach the Data Analytics course each year. No other resources will be needed.

\_\_\_\_\_  
Approved Dept. Chair                      Date

\_\_\_\_\_  
Approved C & P Committee Chair                      Date

\_\_\_\_\_  
Approved Associate Dean                      Date

\_\_\_\_\_  
Submitted by                      Date

Current user: ctorres / **Comments (9)** / Form Transaction Log**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1728

Fields marked with \* are required

Name of Initiator: Tina Armijo Email: [tmarmijo@unm.edu](mailto:tmarmijo@unm.edu) Phone Number: 505 277-1890 Date: 10-23-2015**Associated Forms exist?\*** Yes **Initiator's Title\*** Unit Administrator Anderson Academic Accounting**Faculty Contact\*** Leslie Oakes**Administrative Contact\*** Tina Armijo**Department\*** Anderson School of Management**Admin Email\*** tmarmijo**Branch** MAIN**Admin Phone\*** 277-1890**Proposed effective term**

Semester Spring Year 2016

**Course Information****Select Appropriate Program\*** Graduate Degree Program**Name of New or Existing Program\*** Master of Accounting - Tax Concentration**Select Category \*** Concentration Degree Type

Select Action Revision

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[Tax Accounting Catalog Description.docx](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

This change will allow all of the MACCT concentrations (Advanced, Tax and Information Assurance) to be more in line with each other. All students will have a basic core of courses they must take and then they will have a list of additional specific concentration related courses they can choose from. MGMT 635 is being added to the core now to fulfill an upcoming AACSB requirement of a Data Analytics course in the program.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[Form C - MACC\\_Tax\\_2015.pdf](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[Approve and Sign Off](#)[Send back to Initiator \(Tina Armijo\)](#)  
[Comment on this Form](#)[Committee Review](#)

Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001

## Tax Accounting

This concentration is designed for individuals who have already earned a B.B.A. with a concentration in accounting wishing to pursue advanced studies in taxation. The Tax Concentration consists of five graduate core accounting courses, a minimum of four graduate tax accounting courses and two approved graduate accounting or business electives.

Course requirements: Students must take the following 15 credit hours of accounting coursework: MGMT 546, 554, 555, 635 and one from the following tax courses: MGMT 547, 590, 591, 592, or 593. At least 12 additional credit hours of accounting taxation coursework can come from the following: MGMT \*542, 547, 590, 591, 592, and 593.

\*If students have taken the undergraduate equivalent of any graduate course, they may not repeat the course for credit at the graduate level.

The GMAT/GRE is waived for students who have an undergraduate major in accounting from an AACSB-accredited school with a minimum of a 3.25 GPA in both upper-division classes and accounting classes. Students must fulfill all other admission requirements.

## FORM C Degree/Program Change

Anderson School of Management internal approval form

Name of Initiator: Tina Armijo Email: tmarmijo@unm.edu Date: 3/18/2015

Phone: 277-1890 Initiator's Rank/Title: Unit Administrator

Associated Forms Exist: ☒ Yes ☐ No

Faculty Contact: Leslie Oakes Administrative Contact: Tina Armijo

Department: Department of Accounting

Admin Email: tmarmijo@unm.edu Admin Phone: 277-1890

Branch: Main

Proposed effective term Semester: Spring Year: 2016

### Course Information

Circle Program: UG ☒ GR

Name of new or existing program:

Select Category: Degree Major Minor **Concentration**  
Certificate Emphasis Department Subject code  
UG Core Course

Degree type: Masters of Accountancy

Select Action: New **Revision** Deletion Name Change

Exact Title and Requirements as they should appear in the catalog:

**Tax Accounting**

This concentration is designed for individuals who have already earned a B.B.A. with a concentration in accounting wishing to pursue advanced studies in taxation. The Tax Concentration consists of five graduate core accounting courses, a minimum of four graduate tax accounting courses and two approved graduate accounting or business electives.

Course requirements: Students must take the following 15 credit hours of accounting coursework: MGMT 546, 554, 555, 635 and one from the following tax courses: MGMT 547,

590, 591, 592, or 593. At least 12 additional credit hours of accounting taxation coursework can come from the following: MGMT \*542, 547, 590, 591, 592, and 593.

\*If students have taken the undergraduate equivalent of any graduate course, they may not repeat the course for credit at the graduate level. The GMAT/GRE is waived for students who have an undergraduate major in accounting from an AACSB-accredited school with a minimum of a 3.25 GPA in both upper-division classes and accounting classes. Students must fulfill all other admission requirements.

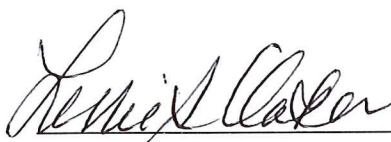
Does this change affect other departmental program/branch campuses? Yes \_\_\_\_ No X

Reason(s) for request:

This change will allow all of the MACCT concentrations (Advanced, Tax and Information Assurance) to be more in line with each other. All students will have a basic core of courses they must take and then they will have a list of additional specific concentration related courses they can choose from. MGMT 635 is being added to the core now to fulfill an upcoming AACSB requirement of a Data Analytics course in the program.

Statements that include justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications:

Two of the new courses, Advance Auditing and Data Analytics (currently Decision & Business Intelligence Systems) will put the program in line with newer AACSB standards in addition to giving the students a better well rounded tax accounting education. By students taking the same basic core they will be more successful sitting for the CPA in New Mexico and surrounding states, especially those going into the taxation field. There will be one additional adjunct hired to teach the Advanced Auditing course one semester a year and a shift in scheduling will allow for a current accounting professor to teach the Data Analytics course each year. No other resources are needed.

 3/15/17  
Approved Dept. Chair Date

n/q

Approved Associate Dean Date

 3/15/16  
Approved C & P Committee Chair Date

Submitted by Date

 4/17/15  
Faculty Chair, Date  
Nick Flor



**Current user: ctorres / Comments (9) / Form Transaction Log**  
**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1729

Fields marked with \* are required

Name of Initiator: Tina Armijo Email: [tmarmijo@unm.edu](mailto:tmarmijo@unm.edu) Phone Number: 505 277-1890 Date: 10-23-2015

Associated Forms exist?\* Yes Initiator's Title\* Unit Administrator Anderson Academic Accounting

Faculty Contact\* Leslie Oakes

Administrative Contact\* Tina Armijo

Department\* Anderson School of Management

Admin Email\* [tmarmijo@unm.edu](mailto:tmarmijo@unm.edu)

Branch MAIN

Admin Phone\* 277-1890

Proposed effective term

Semester Spring Year 2016

## Course Information

Select Appropriate Program\* Graduate Degree Program

Name of New or Existing Program\* Master of Accounting - Information Assurance Concentration

Select Category \* Concentration Degree Type

Select Action Revision

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[Information Assurance Catalog Description.docx](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

This change will allow all of the MACCT concentrations (Advanced, Tax and Information Assurance) to be more in line with each other. All students will have a basic core of courses they must take and then they will have a list of additional specific concentration related courses they can choose from. MGMT 635 added to the core set of courses to fulfill newer AACSB standard.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[Form C - MACC\\_IA\\_2015.pdf](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[Approve and Sign Off](#)[Send back to Initiator \(Tina Armijo\)](#)  
[Comment on this Form](#)[Committee Review](#)

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## Information Assurance

This concentration is designed for individuals who have already earned a B.B.A. with a concentration in accounting, and who wish to pursue advanced studies in attesting to and ensuring the integrity of financial information. This concentration consists of a minimum of 24 credit hours of graduate level accounting coursework with 12 hours in information assurance accounting, and 9 credit hours of non-accounting graduate accounting coursework, with a minimum of 3 credit hours in information assurance.

Course requirements: Students must complete the following **information assurance accounting** courses: MGMT 546, 554, 642, either 641 or 635, one from the following tax courses: MGMT 547, 590, 591, 592, or 593 and complete the following **information assurance** course: MGMT 636. At least 6 credit hours of **accounting coursework** from the following courses: MGMT 551/2, 553, 555, 594 (special topics in accounting only), and 641 and 6 credit hours of **non-accounting coursework** from the following courses: MGMT 637, 646, 647, 648 and 649. Students not meeting the overall concentration requirements with the above classes can do so with additional graduate accounting and non-accounting courses in consultation with the concentration advisor.

The GMAT/GRE is waived for students who have an undergraduate major in accounting from an AACSB-accredited school with a minimum of a 3.25 GPA in both upper-division classes and accounting classes. Students must fulfill all other admission requirements.



## FORM C Degree/Program Change

Anderson School of Management internal approval form

Name of Initiator: Tina Armijo Email: tmarmijo@unm.edu Date: 3/18/2015

Phone: 277-1890 Initiator's Rank/Title: Unit Administrator

Associated Forms Exist: ☒ Yes ☐ No

Faculty Contact: Leslie Oakes Administrative Contact: Tina Armijo

Department: Department of Accounting

Admin Email: tmarmijo@unm.edu Admin Phone: 277-1890

Branch: Main

Proposed effective term Semester: Spring Year: 2016

### Course Information

Circle Program: UG ☒ GR

Name of new or existing program:

Select Category: Degree Major Minor Concentration

Certificate Emphasis Department Subject code

UG Core Course

Degree type: Masters of Accountancy

Select Action: New Revision Deletion Name Change

Exact Title and Requirements as they should appear in the catalog:

### Information Assurance

This concentration is designed for individuals who have already earned a B.B.A. with a concentration in accounting, and who wish to pursue advanced studies in attesting to and ensuring the integrity of financial information. This concentration consists of a minimum of 24 credit hours of graduate level accounting coursework with 12 hours in information assurance accounting, and 9 credit hours of non-accounting graduate accounting coursework, with a minimum of 3 credit hours in information assurance.

Course requirements: Students must complete the following information assurance accounting courses: MGMT 546, 554, 642, either 641 or 594 (special topics in accounting only), one from the following tax courses: MGMT 547, 590, 592, or 593 and complete the following information assurance course: MGMT 636. At least 6 credit hours of accounting coursework from the following courses: MGMT 551/2, 553, 555, 594 (special topics in accounting only), and 641 and 6 credit hours of non-accounting coursework from the following courses: MGMT 637, 646, 647, 648 and 649. Students not meeting the overall concentration requirements with the above classes can do so with additional graduate accounting and non-accounting courses in consultation with the concentration advisor.

The GMAT/GRE is waived for students who have an undergraduate major in accounting from an AACSB-accredited school with a minimum of a 3.25 GPA in both upper-division classes and accounting classes. Students must fulfill all other admission requirements.

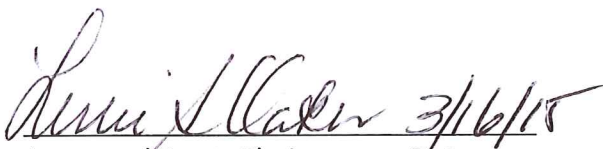
Does this change affect other departmental program/branch campuses? Yes \_\_\_\_ No X

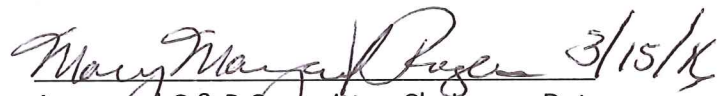
Reason(s) for request:

This change will allow all of the MACCT concentrations (Advanced, Tax and Information Assurance) to be more in line with each other. All students will have a basic core of courses they must take and then they will have a list of additional specific concentration related courses they can choose from.

Statements that include justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications:

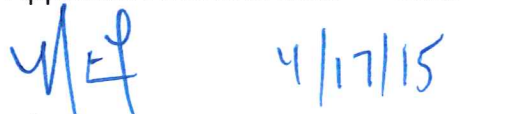
Two of the new courses, Advance Auditing (MGMT 555) and Data Analytics (MGMT 554) will put the program in line with newer AACSB standards in addition to giving the students a better well rounded accounting education, especially Advance Auditing which has been needed in the concentration for some time. By students taking the same basic core they will be more successful sitting for the CPA in New Mexico and surrounding states. There will be one additional adjunct hired to teach the Advanced Auditing course one semester a year and a shift in scheduling will allow for a current accounting professor to teach the other course one semester a year. No other resources are needed.

  
Approved Dept. Chair      Date

  
Approved C & P Committee Chair      Date

  
Approved Associate Dean      Date

Submitted by      Date

  
Updated 7/2014, DFM  
Faculty chair,      Date  
Nick Flor

Current user: ctorres / **Comments (7)** / Form Transaction Log**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)
**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1732


Fields marked with \* are required

Name of Initiator: Elizabeth Anne Castillo Email: [eac@unm.edu](mailto:eac@unm.edu) Phone Number: 505 277-5050 Date: 10-26-2015Associated Forms exist?\* Yes  Initiator's Title\* Admin Assistant 3: Sch Arch Planning Gen Admin

Faculty Contact\* Renia Ehrenfeucht

Administrative Contact\* Elizabeth Castillo

Department\* Community and Regional Planning

Admin Email\* [eac@unm.edu](mailto:eac@unm.edu)

Branch Sch of Architecture and Planning

Admin Phone\* 277-5050

Proposed effective term

Semester  Year **Course Information**Select Appropriate Program\* 

Name of New or Existing Program\* (Dual Degree) MCRP/MA Latin American Studies

Select Category\*  Degree Type MastersSelect Action **Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[Supplement to Form C Dual MALAS-MCRP.pdf](#)☒ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

Two associated Form Bs and one associated Form C, explained here. Add an exit requirement option under Plan II, i.e. a capstone studio, to the dual MCRP/MALAS degree. Associated Form Bs are to create the new exit studios CRP 597, Capstone Planning Studio, variable credit 1CH to 6CH, AND CRP 598, iTown Studio, variable 1CH to 6CH. See attached supplement showing proposed revision in catalog text for Latin American Studies section of catalog describing this dual degree. A separate Form C for the stand alone MCRP degree is being submitted concurrently with this Form C. Regarding dual degrees, the MCRP program has two other existing dual degree options with: Master of Water Resources and Master of Public Administration. Water Resources and Public Administration both were contacted about the added exit option and declined to have it included in the curriculum of their respective MWR/MCRP and MPA/MCRP dual degrees. Correspondence from both of these programs is attached here in ONE PDF indicating their opt out (MWR correspondence shows first in PDF; scroll down to see MPA correspondence).

[MWR and MPA Correspondence.pdf](#)**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[Justification Exit Studios.pdf](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[Approve and Sign Off](#)[Send back to Initiator \(Elizabeth Anne Castillo\)  
Comment on this Form](#)[Committee Review](#)

Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001

**Supplement to Form C: Dual Master of Arts in Latin American Studies and Master of  
Community and Regional Planning, Exit Requirements  
(Addition of an exit option under Plan II)**

**Current and Revised Catalog Text**

Note: Revisions in the right hand column appear in **red text**.

| <u>Current Text:</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <u>Revised Text:</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| <p><b>M.A. in Latin American Studies/M.C.R.P.:</b> The joint master's program in Latin American Studies and Community and Regional Planning is designed for students who are interested in the professional practice of planning in a Latin American context.</p> <p>The Community and Regional Planning Program at the University of New Mexico is dedicated to planning and advocating for sustainable communities and ecosystems throughout the Southwest region and Latin America. Graduates of this dual degree program possess the knowledge and skills necessary to support planning by diverse human communities throughout the Western Hemisphere. Students in this dual degree program learn to assist Latin American communities to create community-based plans and programs that sustain and enhance their culture, resource base, built environment and economic vitality. The program promotes participatory processes that respond to community identities and development needs.</p> <p>Prerequisites to the program are competence in either Spanish or Portuguese (at least two years of undergraduate course work or equivalent language training) and basic course work in economics (micro and/or macro) and statistics. Deficit courses in economics and statistics may be made up after admission to the program.</p> <p>The program requires a minimum of 54 credit hours of graduate credit (compared to 72 credit hours if the two degrees were pursued separately). The required graduate credit hours include: 1) CRP 578, a 3 credit hour bridge</p> | <p><b>M.A. in Latin American Studies/M.C.R.P.:</b> The joint master's program in Latin American Studies and Community and Regional Planning is designed for students who are interested in the professional practice of planning in a Latin American context.</p> <p>The Community and Regional Planning Program at the University of New Mexico is dedicated to planning and advocating for sustainable communities and ecosystems throughout the Southwest region and Latin America. Graduates of this dual degree program possess the knowledge and skills necessary to support planning by diverse human communities throughout the Western Hemisphere. Students in this dual degree program learn to assist Latin American communities to create community-based plans and programs that sustain and enhance their culture, resource base, built environment and economic vitality. The program promotes participatory processes that respond to community identities and development needs.</p> <p>Prerequisites to the program are competence in either Spanish or Portuguese (at least two years of undergraduate course work or equivalent language training) and basic course work in economics (micro and/or macro) and statistics. Deficit courses in economics and statistics may be made up after admission to the program.</p> <p>The program requires a minimum of 54 credit hours of graduate credit (compared to 72 credit hours if the two degrees were pursued separately). The required graduate credit hours include: 1) CRP 578, a 3 credit hour bridge</p> |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>seminar; 2) 22 credit hours of thesis and course work in Community and Regional Planning; 3) 24 credit hours of course work in Latin American Studies; and 4) 5 elective credit hours of either CRP or LTAM graduate course work. For the 22 credit hours in Community and Regional Planning, students must complete CRP 500, 510, 511, 545 (or 580), 588, and 599. Students must also demonstrate capacity in two Community and Regional Planning competency areas, as determined in consultation with their advisors: 1) Providing a real-time professional deliverable to a client, and 2) Using spatial analysis to analyze planning problems and develop planning solutions. For the 24 credit hours in Latin American Studies, students must complete a minimum of 9 credit hours in each of two concentrations. Each candidate is required to prepare a thesis (Plan I). The Master's examination consists of an oral examination at the final presentation of the thesis; this examination includes coverage of the student's two concentrations in Latin American Studies. The student's Committee on Studies, comprised of at least two faculty members in one concentration and one faculty member from the second concentration, preside over the examination. The Chair of the Committee on Studies must be a faculty member from Community and Regional Planning.</p> | <p>seminar; 2) 22 credit hours of course work, which includes thesis or capstone studio, in Community and Regional Planning; 3) 24 credit hours of course work in Latin American Studies; and 4) 5 elective credit hours of either CRP or LTAM graduate course work. For the 22 credit hours in Community and Regional Planning, students must complete CRP 500, 510, 511, 545 (or 580), 588, and 599 (or 597 or 598). Students must also demonstrate capacity in two Community and Regional Planning competency areas, as determined in consultation with their advisors: 1) Providing a real-time professional deliverable to a client, and 2) Using spatial analysis to analyze planning problems and develop planning solutions. For the 24 credit hours in Latin American Studies, students must complete a minimum of 9 credit hours in each of two concentrations. Each candidate is required to prepare a thesis (Plan I) or complete 6 credit hours of a Community and Regional Planning capstone studio (Plan II). The Master's examination consists of an oral examination at the final presentation of the thesis or at completion of the capstone studio; this examination includes coverage of the student's two concentrations in Latin American Studies. The student's Committee on Studies, comprised of at least two faculty members in one concentration and one faculty member from the second concentration, preside over the examination. The Chair of the Committee on Studies must be a faculty member from Community and Regional Planning.</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Elizabeth Anne Castillo

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**From:** Renia Ehrenfeucht  
**Sent:** Monday, October 12, 2015 4:24 PM  
**To:** Elizabeth Anne Castillo  
**Subject:** FW: dual degree with crp

---

Renia Ehrenfeucht  
Professor + Director  
Community and Regional Planning  
School of Architecture + Planning  
University of New Mexico  
[rehrenfeucht@unm.edu](mailto:rehrenfeucht@unm.edu)

---

**From:** William Fleming <[fleming@unm.edu](mailto:fleming@unm.edu)>  
**Date:** Monday, October 12, 2015 at 4:17 PM  
**To:** Renia Ehrenfeucht <[rehrenfeucht@unm.edu](mailto:rehrenfeucht@unm.edu)>  
**Subject:** Fwd: dual degree with crp

Sent from my iPhone

Begin forwarded message:

**From:** Robert Berrens <[rberrens@unm.edu](mailto:rberrens@unm.edu)>  
**Date:** October 12, 2015 at 3:16:57 PM MDT  
**To:** William Fleming <[fleming@unm.edu](mailto:fleming@unm.edu)>  
**Cc:** Robert Berrens <[rberrens@unm.edu](mailto:rberrens@unm.edu)>  
**Subject:** Re: dual degree with crp

Hi Bill

Thanks for your inquiry. The Water Resources Program (WRP) at UNM offers the interdisciplinary Masters in Water Resources (MWR) degree, and participates with Community and Regional Planning in offering the dual MCRP-MWR degree. As part of the MWR, as well as in the MCRP-MWR, WRP requires that all students take the WR 573 Water Resources III - Field Problems (4 cr) course as part of our core sequence. This course is a field-based course taught by an interdisciplinary group with a STUDIO focus: there are few lectures, a mix of field collection (chemistry, biology, hydrology) and lab testing, students work in groups emphasizing collaborative and cooperative learning, and considerable student responsibility to collectively produce and present the final product -typically a rapid watershed assessment report from the summer field site(s).

Let me know if you need anything else.

Sincerely,

Bob

Robert Berrens  
Director, Water Resources Program

Professor, Department of Economics  
University of New Mexico  
505 250-5989

On 10/12/15 1:40 PM, William Fleming wrote:

Hi Bob,

We are in the process of submitting a form C to add a studio to our exit requirements. As you already require a summer field studio, there is no need to add a CRP studio to the dual degree requirements. Could you please send me an email confirming this? Our director, Renia Ehrenfeucht, would like to attach a note from you to the form C.

Thanks much, Bill



## Elizabeth Anne Castillo

---

**From:** Gene Henley  
**Sent:** Thursday, October 22, 2015 11:18 AM  
**To:** Elizabeth Anne Castillo  
**Subject:** RE: Dual MPA-MCRP Guidelines

Liz,  
Thanks for the reminder.  
I believe SPA would opt out at this time.  
We too are currently reviewing our capstone options and until they decide what to do re the Plan III option as well as a couple of other things, I think it's best we not add another issues at this time.

Have a great day and a better week!

Gene V. Henley  
Director of Operations and Advisement  
School of Public Administration  
O) 505.277.1095  
F) 505.277.2529  
C) 505.385.6999  
<http://spa.unm.edu//>

**Please expect a 3 business day response time, not including weekends or holidays.**

**Please include your student ID number and full name in your correspondence.**

IMPORTANT: FERPA guidelines indicate you MUST email from your @unm.edu account if you are a current UNM student. For more information about FERPA, please visit this website: <http://ed.gov/policy/gen/guid/fpco/ferpa/students.html>.

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**From:** Elizabeth Anne Castillo  
**Sent:** Thursday, October 22, 2015 10:48 AM  
**To:** Gene Henley <[ghenley@unm.edu](mailto:ghenley@unm.edu)>  
**Subject:** RE: Dual MPA-MCRP Guidelines

Gene,

Did you get my email RE: MCRP adding a capstone studio exit option? I think Ric at some point told you about this, but basically, we are adding under Plan II a course called CRP 597, Capstone Planning Studio. So, exit requirement options will be: Plan I: CRP 588 (2CH)+CRP 599/Thesis (6CH) –OR– Plan II: CRP 588+CRP 589/Prof Proj (6CH) –OR– Plan II: CRP 588+CRP 597/Capstone Studio (6CH).

The Registrars office told me that each dual degree can either include the new capstone studio option as part of the dual degree, in which case I would submit an extra Form C for that dual degree, OR a dual degree can decline adding the new option, in which case we need some communication from the dual program indicating their opt out. I then would attach that communication of opt out to our lone MCRP Form C.



Please let me know if PADM dual will opt out of the new option, or if you would like me to submit a Form C for MCRP/MPA to add the new option. Thank you.

Liz

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**From:** Gene Henley  
**Sent:** Thursday, October 22, 2015 10:14 AM  
**To:** James Richardson  
**Cc:** Elizabeth Rowe; Elizabeth Anne Castillo  
**Subject:** RE: Dual MPA-MCRP Guidelines

Ric,

Here are the proposed revisions from our meeting yesterday.  
This, I believe, honors the present dual degree approved by both faculties; adjusts the total credit hours to the new 60 credit hour requirement and incorporates the new CRP course.  
Please let me know what you think.

Have a great day and a better week!

Gene V. Henley  
Director of Operations and Advisement  
School of Public Administration  
O) 505.277.1095  
F) 505.277.2529  
C) 505.385.6999  
<http://spa.unm.edu//>

**Please expect a 3 business day response time, not including weekends or holidays.**

**Please include your student ID number and full name in your correspondence.**

IMPORTANT: FERPA guidelines indicate you MUST email from your @unm.edu account if you are a current UNM student. For more information about FERPA, please visit this  
website: <http://ed.gov/policy/gen/guid/fpco/ferpa/students.html>.

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**From:** Elizabeth Anne Castillo  
**Sent:** Monday, October 05, 2015 10:59 AM  
**To:** Gene Henley <[ghenley@unm.edu](mailto:ghenley@unm.edu)>  
**Cc:** James Richardson <[jrich@unm.edu](mailto:jrich@unm.edu)>; Elizabeth Rowe <[erowe@unm.edu](mailto:erowe@unm.edu)>; Renia Ehrenfeucht <[rehrenfeucht@unm.edu](mailto:rehrenfeucht@unm.edu)>  
**Subject:** Dual MPA-MCRP Guidelines

Gene,

Given the recent MCRP change from 50CH to 48CH, with the **MPA/MCRP Dual Degree** going from 62CH to **60CH** (*minus CRP 521, fulfilling two competencies, and adding 3CH of additional electives*), I have revised the numbers and added the competencies language in a 2010 version of the MPA/MCRP Guidelines which I had in my files, highlighting in yellow

where I made changes. Please let me know if you have a more updated document and/or if the one attached here is okay to use. Thanks so much.

Liz

Elizabeth A. Castillo  
Administrative Assistant 3  
Community and Regional Planning Program  
School of Architecture & Planning, MSC04 2530  
1 University of New Mexico  
Albuquerque, NM 87131  
(505) 277-5050  
FAX (505) 277-0076  
Pearl Hall, Room 119

This curriculum change will have no budgetary impact. The CRP program has planned course sequencing and frequency to be able to offer capstone studios with no changes to faculty workload. No additional resources are necessary.

**Current user: ctorres / Comments (9) / Form Transaction Log**  
**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1733

Fields marked with \* are required

Name of Initiator: Roberta Murray Email: [bmurray@unm.edu](mailto:bmurray@unm.edu) Phone Number: 505 277-8438 Date: 10-26-2015

Associated Forms exist?\* No Initiator's Title\* Admin Assistant 3: Anderson Schools of Management

Faculty Contact\* Ranjit Bose

Administrative Contact\* Bobbie Murray

Department\* ASM/MIDS

Admin Email\* [bmurray@unm.edu](mailto:bmurray@unm.edu)

Branch Main

Admin Phone\* 277-8438

Proposed effective term

Semester Fall Year 2016

## Course Information

Select Appropriate Program\* Graduate Degree Program

Name of New or Existing Program\* MBA - Management Information Systems Concentration

Select Category \* Concentration Degree Type MBA

Select Action Revision

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[Form C MIS course info.pdf](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

To add MGMT 633, 638, 644 and 645 to the list of elective courses available to students.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[Form C MIS implications.pdf](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[Approve and Sign Off](#)[Send back to Initiator \(Roberta Murray\)](#)  
[Comment on this Form](#)[Committee Review](#)

Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001

Exact Title and Requirements as they should appear in the catalog:

**Management Information Systems – 12 credit hours**

One semester of programming experience (i.e, CS 152L, MGMT 330, or equivalent) is a prerequisite for the concentration.

**Requirements:** MGMT 634 and 637

In addition to the two required courses, students must select two additional courses from the following: MGMT 630, 631, 632, 633, 635, 636, 638, 639, 644, 645, 647 and 648. Multiple MGMT 639 sections may be used to satisfy concentration requirements as long as the topics vary. Students are strongly encouraged to work with the faculty concentration advisor as early as possible in their degree program to plan a suitable program of study.

No budgetary implications (MGMT 633,644, 645 and 638 are currently being offered). 644 and 645 are currently offered as 639, Form Bs have been created and approved by the faculty to address this change.

Current user: ctorres / **Comments (7)** / Form Transaction Log**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C  
Form Number: C1737**

Fields marked with \* are required

Name of Initiator: Maria Daniela Wilken Email: [mdaniela@unm.edu](mailto:mdaniela@unm.edu) Phone Number: 505 277-5560 Date: 10-26-2015

Associated Forms exist?\* No Initiator's Title\* Coord, Graduate Programs: Economics Department

Faculty Contact\* Jennifer Thacher

Administrative Contact\* Leah Hardesty

Department\* Economics

Admin Email\* [Imayo@unm.edu](mailto:Imayo@unm.edu)

Branch

Admin Phone\* 505-277-5304

Proposed effective term

Semester Spring Year 2016

**Course Information**

Select Appropriate Program\* Graduate Degree Program

Name of New or Existing Program\* M.A. Economics Plan II

Select Category \* Degree Degree Type M.A. Plan II

Select Action Revision

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[Form C proposed changes.docx](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

Please see attached document

[Form C memo 30 credit hours 16-17.docx](#)**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[justification memo Form C.docx](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[Approve and Sign Off](#)[Send back to Initiator \(Daniela Wilken\)  
Comment on this Form](#)[Committee Review](#)

Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001

Form C

Proposed changes

| Current                                                                                                                                                        | Proposed requirements                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>M.A. Plan II (Examination (No Thesis) Option</b>                                                                                                            | <b>M.A. Plan II (Examination (No Thesis) Option</b>                                                                                                            |
| 1. A minimum of 32 hours of approved course work. Courses taken on a Credit/No Credit basis do not count towards the minimum required 32 hours of course work. | 1. A minimum of 30 hours of approved course work. Courses taken on a Credit/No Credit basis do not count towards the minimum required 30 hours of course work. |



## Form C

### Reason for request:

In 2015, after a comparison with peer universities, UNM reduced the number of credit hours required for a Plan II (Examination) MA from 32 to 30 credit hours. Each department can decide whether to reduce to 30 credit hours or maintain the current 32. The economics faculty has voted to decrease the number of credit hours to 30 for MA primarily to benefit PhD students who earned an MA enroute.

Under current requirements, PhD students must earn a total of 52 credit hours, exceeding the required 49 credit hours by the Department.

Under the current 32 hour requirement, a student who wishes to earn an MA enroute must do the following:

1. Earn at least 32 course credit hours for the MA +
2. Earn an additional 18 credits post-MA
3. Earn at least 48 hours total

|                     | Current system                  |                                        | Proposed system                 |                                        |
|---------------------|---------------------------------|----------------------------------------|---------------------------------|----------------------------------------|
| Semester            | # of credits counted towards MA | Additional credits counted towards PhD | # of credits counted towards MA | Additional credits counted towards PhD |
| F1                  | 12                              | 1                                      | 12                              | 1                                      |
| S1                  | 9                               |                                        | 9                               |                                        |
| F2                  | 9                               |                                        | 9                               |                                        |
| S2                  | 3                               | 6                                      |                                 | 9                                      |
| F3                  |                                 | 6                                      |                                 | 6                                      |
| S3                  |                                 | 6                                      |                                 | 3                                      |
| Total               | 33                              | 19                                     | 30                              | 19                                     |
| Total credits taken | 52                              |                                        | 49                              |                                        |

As the table above illustrates, because of the credit hours associated with our courses, a PhD student earning an MA enroute will earn 33 credit hours for the MA and 19 additional hours for the PhD, thus accumulating a total of 52 credit hours. Thus, under the current system, a PhD student is effectively taking one more class (of 3 credit hours) than is really needed for the 49 hour requirement. Under the proposed 30 hour MA, requirement (1) will change to 30 hours and the other requirements will remain to the same. As the table below illustrates, because of the credit hours associated with our courses, a PhD student earning an MA enroute will earn 30 credit hours for the MA and 19 additional hours for the PhD, thus accumulating a total of 49 credit hours. Thus, reducing the required MA credits to 30 reduces required PhD coursework by one three-credit course.

We thank you for your time and consideration with this request.



We do not expect any budgetary impacts from this change. The department has very few terminal MA students (i.e., 1 every 1-2 years). The vast majority are PhD students and pay the same tuition whether they take 6 or 9 credit hours. We ran a number of scenarios under different assumptions of entering cohort sizes, percentage of students in each concentration, and number of course offerings and believe that on average there will not be any impacts on hitting minimum graduate course enrollment requirements.

Current user: ctorres / **Comments (8)** / Form Transaction Log**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)
**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1738


Fields marked with \* are required

Name of Initiator: Elizabeth Anne Castillo Email: [eac@unm.edu](mailto:eac@unm.edu) Phone Number: 505 277-5050 Date: 10-27-2015

Associated Forms exist?\* Yes Initiator's Title\* Admin Assistant 3: Sch Arch Planning Gen Admin

Faculty Contact\* Renia Ehrenfeucht

Administrative Contact\* Elizabeth Castillo

Department\* Community and Regional Planning

Admin Email\* [eac@unm.edu](mailto:eac@unm.edu)

Branch Sch Architecture and Planning

Admin Phone\* 277-5050

Proposed effective term

Semester Fall Year 2016

## Course Information

Select Appropriate Program\* Graduate Degree Program

Name of New or Existing Program\* MCRP - Indigenous Planning Concentration (NEW)

Select Category \* Concentration Degree Type Masters

Select Action New

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[Supplement to Form C MCRP IP Concentration.pdf](#)☒ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

Five associated Form Bs, one associated Form A, and one associated Form C, explained below. Adding a fourth concentration option, Indigenous Planning, to the MCRP degree program. Currently, the MCRP degree has three concentrations: 1)Community Development, 2)Natural Resources and Environmental Planning, and 3)Physical Planning and Design. See attached supplement showing revised catalog text. Five Form Bs will be submitted to regularize CRP course offerings which historically have been taught as topics courses (CRP 570), and which will serve as approved electives for this new concentration. These five proposed courses are: CRP 538, Community Participatory Methods; CRP 539, Indigenous Space, Place and Mapping; CRP 540, Pueblo Design and Planning; CRP 541, Navajo Design and Planning; and CRP 546, Contemporary Indigenous Architecture. One Form A will be submitted to change an existing CRP course title and number to a more accurate title and a more logical course number, with content remaining the same. That proposed Form A will change CRP 572, Indigenous Planning TO CRP 534, Foundations of Indigenous Planning, which will be the required foundations class in the new concentration. The number 534 follows the number sequencing of our other three (existing) foundations courses. Associated Form C is to add exit options under Plan II to MCRP degree.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[Justification MCRP IP Concentration Form C.pdf](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[Approve and Sign Off](#)[Send back to Initiator \(Elizabeth Anne Castillo\)  
Comment on this Form](#)[Committee Review](#)

**Supplement to Form C: Master of Community and Regional Planning, Concentrations  
(Addition of Indigenous Planning Concentration)  
Current and Revised Catalog Text**

Note: Revisions in the right hand column appear in **red text**.

| Current Text:                                                                                                                                                                                                                                                                                                                                                                                            | Revised Text:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |              |              |  |                          |  |     |                             |   |                                                                                                                                                                                                |  |  |              |  |                          |  |     |                             |   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|--|--------------------------|--|-----|-----------------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--------------|--|--------------------------|--|-----|-----------------------------|---|
| <b>Course of Study and Degree Completion</b>                                                                                                                                                                                                                                                                                                                                                             | <b>Course of Study and Degree Completion</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |              |              |  |                          |  |     |                             |   |                                                                                                                                                                                                |  |  |              |  |                          |  |     |                             |   |
| <p>The M.C.R.P. degree program is a two-year course of study for which a minimum of 48 credit hours is required. This program requires four parts for the completion of this degree: 48 credit hours of course work as indicated in the program of study; the Graduate Review; demonstrated competency in two areas described below; and a thesis or professional project to be presented in public.</p> | <p>The M.C.R.P. degree program is a two-year course of study for which a minimum of 48 credit hours is required. This program requires four parts for the completion of the degree: 1) 48 credit hours of course work as indicated in the program of study; 2) the Graduate Review; 3) demonstrated competency in two areas described below; and 4) a thesis or professional project to be presented in public, or completion of a capstone studio. [Note: a separate Form C is being submitted outlining the addition of capstone studio exit options – document you are reading now will serve as the supplement for that Form C, as well].</p> |              |              |  |                          |  |     |                             |   |                                                                                                                                                                                                |  |  |              |  |                          |  |     |                             |   |
| <p>Students enrolled in this program are allowed to take up to 12 credit hours at the graduate level in other UNM programs.</p>                                                                                                                                                                                                                                                                          | <p>Students enrolled in this program are allowed to take up to 12 credit hours at the graduate level in other UNM programs.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |              |              |  |                          |  |     |                             |   |                                                                                                                                                                                                |  |  |              |  |                          |  |     |                             |   |
| <p>Incoming graduate students are required to have taken statistics and economics as prerequisites for this program. If a student has not taken these courses, they may take them simultaneously with their first semester of graduate course work in the program, and must have the prerequisites completed before beginning their second semester in the program.</p>                                  | <p>Incoming graduate students are required to have taken statistics and economics as prerequisites for this program. If a student has not taken these courses, they may take them simultaneously with their first semester of graduate course work in the program, and must have the prerequisites completed before beginning their second semester in the program.</p>                                                                                                                                                                                                                                                                           |              |              |  |                          |  |     |                             |   |                                                                                                                                                                                                |  |  |              |  |                          |  |     |                             |   |
| <b>Required Graduate Courses</b>                                                                                                                                                                                                                                                                                                                                                                         | <b>Required Graduate Courses</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |              |              |  |                          |  |     |                             |   |                                                                                                                                                                                                |  |  |              |  |                          |  |     |                             |   |
| <table><tr><td></td><td></td><td>Credit Hours</td></tr><tr><td></td><td>Core Course Requirements</td><td></td></tr><tr><td>CRP</td><td>Planning Theory and Process</td><td>4</td></tr></table>                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |              | Credit Hours |  | Core Course Requirements |  | CRP | Planning Theory and Process | 4 | <table><tr><td></td><td></td><td>Credit Hours</td></tr><tr><td></td><td>Core Course Requirements</td><td></td></tr><tr><td>CRP</td><td>Planning Theory and Process</td><td>4</td></tr></table> |  |  | Credit Hours |  | Core Course Requirements |  | CRP | Planning Theory and Process | 4 |
|                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Credit Hours |              |  |                          |  |     |                             |   |                                                                                                                                                                                                |  |  |              |  |                          |  |     |                             |   |
|                                                                                                                                                                                                                                                                                                                                                                                                          | Core Course Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |              |              |  |                          |  |     |                             |   |                                                                                                                                                                                                |  |  |              |  |                          |  |     |                             |   |
| CRP                                                                                                                                                                                                                                                                                                                                                                                                      | Planning Theory and Process                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 4            |              |  |                          |  |     |                             |   |                                                                                                                                                                                                |  |  |              |  |                          |  |     |                             |   |
|                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Credit Hours |              |  |                          |  |     |                             |   |                                                                                                                                                                                                |  |  |              |  |                          |  |     |                             |   |
|                                                                                                                                                                                                                                                                                                                                                                                                          | Core Course Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |              |              |  |                          |  |     |                             |   |                                                                                                                                                                                                |  |  |              |  |                          |  |     |                             |   |
| CRP                                                                                                                                                                                                                                                                                                                                                                                                      | Planning Theory and Process                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 4            |              |  |                          |  |     |                             |   |                                                                                                                                                                                                |  |  |              |  |                          |  |     |                             |   |

|                            |                                                                 |           |
|----------------------------|-----------------------------------------------------------------|-----------|
| 500                        |                                                                 |           |
| CRP 510                    | Planning Communication Workshop                                 | 2         |
| CRP 511                    | Analytical Methods for Planning                                 | 4         |
| CRP 545<br>-or-<br>CRP 580 | Land Use Controls<br><br>Community Growth and Land Use Planning | 3         |
|                            | <b>Total</b>                                                    | <b>13</b> |

### Concentration Course Requirements

- Students are required to select an area of concentration in Community Development, Natural Resources and Environmental Planning, or Physical Planning and Design.
- Students are required to take a concentration Foundations course (3 credit hours) and a second methods course (3 credit hours) from a cluster of course options in their concentration area.
- Total of 6 credit hours of Concentration Requirements.

### Elective Course Requirements

- Students must take 21 credit hours of approved elective course work.

### Exit Course Requirements

|         |                                                 | <b>Credit Hours</b> |
|---------|-------------------------------------------------|---------------------|
| CRP 588 | Professional Project/Thesis Preparation Seminar | 2                   |
| CRP 599 | <b>Plan I</b><br>Master's Thesis                |                     |

|                            |                                                                 |           |
|----------------------------|-----------------------------------------------------------------|-----------|
| 500                        |                                                                 |           |
| CRP 510                    | Planning Communication Workshop                                 | 2         |
| CRP 511                    | Analytical Methods for Planning                                 | 4         |
| CRP 545<br>-or-<br>CRP 580 | Land Use Controls<br><br>Community Growth and Land Use Planning | 3         |
|                            | <b>Total</b>                                                    | <b>13</b> |

### Concentration Course Requirements

- Students are required to select an area of concentration in Community Development, Natural Resources and Environmental Planning, Physical Planning and Design, **or Indigenous Planning**.
- Students are required to take a concentration Foundations course (3 credit hours) and a second methods course (3 credit hours) from a cluster of course options in their concentration area.
- Total of 6 credit hours of Concentration Requirements.

### Elective Course Requirements

- Students must take 21 credit hours of approved elective course work.

### Exit Course Requirements

|         |                                                 | <b>Credit Hours</b> |
|---------|-------------------------------------------------|---------------------|
| CRP 588 | Professional Project/Thesis Preparation Seminar | 2                   |
| CRP     | <b>Plan I</b>                                   |                     |

|            |                                        |          |            |                                                           |          |
|------------|----------------------------------------|----------|------------|-----------------------------------------------------------|----------|
| -or-       |                                        |          | 599        | Master's Thesis                                           |          |
| CRP<br>589 | <b>Plan II</b><br>Professional Project | 6        | -or-       | <b>Plan II [see Note above about<br/>separate Form C]</b> | 6        |
|            |                                        |          | CRP<br>589 | Professional Project                                      |          |
|            |                                        |          | -or-       |                                                           |          |
|            |                                        |          | CRP<br>597 | Capstone Planning Studio                                  |          |
|            |                                        |          | -or-       |                                                           |          |
|            |                                        |          | CRP<br>598 | iTown Studio                                              |          |
|            | <b>Total</b>                           | <b>8</b> |            | <b>Total</b>                                              | <b>8</b> |

**A total of 48 credit hours are required for completion of the M.C.R.P. Degree**

#### **The Graduate Review**

The Graduate Review should take place at the student's request after the completion of 12 credit hours of graduate study but must take place before the student can enroll in the thesis/professional project preparation course. A faculty committee consisting of the student's advisor and one other CRP faculty member reviews the student's prior academic records, proposed Program of Studies, evidence of courses focused in a concentration, a Student Self-Assessment filled out by the student, and the thesis or professional project proposal. The student shall also show completion of courses fulfilling the competencies in the student's chosen concentration. Assessment of the student's performance in the program to date and proposals for future work guide the committee's recommendations for the student's remaining efforts to complete the M.C.R.P. degree and the approval of the Program of Studies form.

**A total of 48 credit hours are required for completion of the M.C.R.P. Degree**

#### **The Graduate Review**

The Graduate Review should take place at the student's request after the completion of 12 credit hours of graduate study but must take place before the student can enroll in the thesis/professional project preparation course. A faculty committee consisting of the student's advisor and one other CRP faculty member reviews the student's prior academic records, proposed Program of Studies, evidence of courses focused in a concentration, a Student Self-Assessment filled out by the student, and the **thesis, professional project, or capstone studio proposal**. The student shall also show completion of courses fulfilling the competencies in the student's chosen concentration. Assessment of the student's performance in the program to date and proposals for future work guide the committee's recommendations for the student's remaining efforts to complete the M.C.R.P. degree and the approval of the Program of Studies form.

**Spatial Analysis and Professional Deliverable Competencies**

Students in the M.C.R.P. program must demonstrate competency in the following two areas. Students have the option of completing internships or projects, and completing spatial analysis courses or other work to demonstrate competency in these areas. This requires faculty consultation to determine course work or internships that help demonstrate each competency, and approval from students' advisors.

- Competency 1: Providing a real-time professional deliverable to a client.
- Competency 2: Using spatial analysis to analyze planning problems and develop planning solutions.

To fulfill Competency 2 (spatial analysis), students may complete either CRP 583 Introduction to Geographic Information Systems, or Geographic Information Systems courses from other UNM departments, with faculty advisor approval. Students are responsible for consulting with their advisor regarding the best way to meet this requirement.

**Thesis or Professional Project**

The thesis/professional project is a formal document prepared in consultation with the student's faculty committee and presented in public. The thesis/professional project committee, which is nominated by the candidate, evaluates the scope of the work, the quality of analysis and the content of the findings and/or recommendations. The committee also evaluates the student's understanding of his or her chosen field of study and area of concentration, as well as strengths in accomplishing graduate studies.

**Spatial Analysis and Professional Deliverable Competencies**

Students in the M.C.R.P. program must demonstrate competency in the following two areas. Students have the option of completing internships or projects, and completing spatial analysis courses or other work to demonstrate competency in these areas. This requires faculty consultation to determine course work or internships that help demonstrate each competency, and approval from students' advisors.

- Competency 1: Providing a real-time professional deliverable to a client.
- Competency 2: Using spatial analysis to analyze planning problems and develop planning solutions.

To fulfill Competency 2 (spatial analysis), students may complete either CRP 583 Introduction to Geographic Information Systems, or Geographic Information Systems courses from other UNM departments, with faculty advisor approval. Students are responsible for consulting with their advisor regarding the best way to meet this requirement.

**Thesis, Professional Project, or Capstone Studio**

The thesis/professional project is a formal document prepared in consultation with the student's faculty committee and presented in public. **Students who choose to complete the capstone studio option will complete six credit hours of studio work and be evaluated by a committee.** The thesis/professional project/capstone studio committee evaluates the scope of the work, the quality of analysis and the content of the findings and/or recommendations. The committee also evaluates the student's understanding of his or her chosen field of study and area of concentration, as well as strengths in

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| <p><b>Licensing for Planners</b></p> <p>There are no licensing requirements for planners in New Mexico. Planners may be certified through the American Institute for Certified Planners (AICP).</p> <hr/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <p>accomplishing graduate studies.</p> <p><b>Licensing for Planners</b></p> <p>There are no licensing requirements for planners in New Mexico. Planners may be certified through the American Institute for Certified Planners (AICP).</p> <hr/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <p><b>Dual Degrees</b></p> <p><b>Joint Dual Degrees Between the M.C.R.P. and Other Programs</b></p> <p>Formal dual-degree programs have been established with Latin American Studies, the School of Public Administration, and the Water Resources program. The dual-degree programs allow a student to complete both degrees in approximately 75% of the time it would take for the individual degrees in sequence. The dual degree option is attractive for advanced students who have field experience and who wish to accelerate their graduate education.</p> <p><b>Other Degree Opportunities</b></p> <p>Individual dual degree opportunities are also available with other departments on campus. The program of study is developed by the student and supported by the participating departments. Students have developed dual degrees with Architecture, Public Health, Economics, and Landscape Architecture. Students should initiate an individual dual degree by talking with their faculty advisor.</p> | <p><b>Dual Degrees</b></p> <p><b>Joint Dual Degrees Between the M.C.R.P. and Other Programs</b></p> <p>Formal dual-degree programs have been established with Latin American Studies, the School of Public Administration, and the Water Resources program. The dual-degree programs allow a student to complete both degrees in approximately 75% of the time it would take for the individual degrees in sequence. The dual degree option is attractive for advanced students who have field experience and who wish to accelerate their graduate education.</p> <p><b>Other Degree Opportunities</b></p> <p>Individual dual degree opportunities are also available with other departments on campus. The program of study is developed by the student and supported by the participating departments. Students have developed dual degrees with Architecture, Public Health, Economics, and Landscape Architecture. Students should initiate an individual dual degree by talking with their faculty advisor.</p> |



# **Master's in Community and Regional Planning Indigenous Planning Concentration (Proposed)**

## **Justification for the Program**

Expertise and resources are already in place at UNM to create this an Indigenous Planning concentration, which will contribute to the overall strength and appeal of UNM's MCRP program. There is student demand for this concentration and faculty support both within MCRP and other departments on campus. Professors Theodore (Ted) Jojola and Laura Harjo areas of specialization are in Indigenous Planning. A third MCRP tenure-track faculty in Latin American Development and Indigeniety is currently being hired. In addition, the MCRP annually admits 3-6 students who are Indigenous or are invested in Indigenous Planning. Through the School of Architecture and Planning's Indigenous Design and Planning Institute, it coordinates projects and networks with tribal communities and professional organizations throughout the University, statewide, nationally and internationally.

## **Impact on Long-Range Planning**

The addition of a MCRP concentration in Indigenous Planning represents a desire to embrace indigenous worldviews and methodologies as a distinct and legitimate sub-field of planning. The request to add this concentration represents an effort to build on expertise in the school and keep the planning program innovative and cutting-edge. The most recent MCRP accreditation report cited its efforts in Indigenous Planning as an area of distinction. This concentration would be the only degree opiton of this type in the nation.

## **Budget Analysis and Faculty Workload Implications**

There will be no impact on budget or faculty load by the addition of Indigenous Planning as a concentration in the MCRP program.

Current user: ctorres / **Comments (7)** / Form Transaction Log**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C  
Form Number: C1740**

Fields marked with \* are required

Name of Initiator: Kateri Ruth Morris Email: [katerim@unm.edu](mailto:katerim@unm.edu) Phone Number: 505 661-4693 Date: 10-27-2015Associated Forms exist?\*  Initiator's Title\* Admin Assistant to the Dean: Los Alamos Branch

Faculty Contact\* Kay Willerton

Administrative Contact\* Kateri Morris

Department\* Instruction

Admin Email\* [katerim@unm.edu](mailto:katerim@unm.edu)

Branch UNM-Los Alamos

Admin Phone\* 505-661-4693

Proposed effective term

Semester  Year **Course Information**Select Appropriate Program\* 

Name of New or Existing Program\* AA Early Childhood Multicultural Education - LA

Select Category \*  Degree Type AASelect Action **Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

Delete ECME program because there are no students in the program.

[FormC\\_AAECME-deletion\\_approval.pdf](#)**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[FormC\\_AAECME-deletion\\_approval.pdf](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[Approve and Sign Off](#)[Send back to Initiator \(Kateri Ruth Morris\)  
Comment on this Form](#)[Committee Review](#)

Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001

### **Justification for Deletion of the AA Degree in Early Childhood Multi-Cultural Education**

The Associate of Arts Degree in Early Childhood Multi-Cultural Education at UNM-Los Alamos is being deleted. The last student in the degree program received her degree in Spring 2015. We currently have no enrollment in the degree program, and no faculty on staff who are assigned to teach these courses. There have been no inquiries about the program for two years, so we see no need to continue the program. Since we have no students in the program, the last date to award the degree is not needed.

## CURRENT CATALOG LISTING FOR ASSOCIATE OF ARTS

### Early Childhood Multicultural Education

#### About the Program

The Early Childhood Multicultural Education program is designed for individuals who wish to work in the field and/or continue their studies towards a baccalaureate degree. The baccalaureate program at the University of New Mexico in ECME leads to licensure for teachers working with children from birth to age eight. This associate of arts degree, plus experience, meets the requirements for qualifying as a center director as specified in the New Mexico Child Care Facilities Licensing Regulations. The program addresses the seven general early child education competency areas. Students seeking to transfer are encouraged to consult with an academic advisor.

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A student must have a minimum of 67 credit hours with a minimum grade point average of 2.0. At least 15 of 67 credit hours must be UNM-LA Catalog credit courses taken in residence. It is strongly recommended that the student check the specific requirements for the B.S. at the particular institution to which they plan to transfer in order to make the best choices among the optional courses below. \*Note: Students planning to transfer to a four year institution should check grade point requirements at that institution.

#### General Education Requirements

##### WRITING AND SPEAKING (9 CREDIT HOURS)

- ☐ ENGL 110: Accelerated Composition (3)

*or*

- ☐ ENGL 112: Composition II (3)

*or*

- ☐ ENGL 113: Enhanced Composition (3)

*and*

- ☐ ENGL 120: Composition III (3)

*And Select one course from:*

- ☐ CJ 130: Public Speaking (3)
- ☐ CJ 220: Communication for Teachers (3)
- ☐ ENGL 290: Introduction to Professional Writing (3)

##### MATHEMATICS (AT LEAST 3 CREDIT HOURS)

*Select from the following:*

- ☐ MATH 111: Mathematics for Elementary and Middle School Teachers I

*or*

- ☐ MATH 112: Mathematics for Elementary and Middle School Teachers II
- ☐ MATH 121: College Algebra (3)
- ☐ MATH 129: A survey of Mathematics (3)
- ☐ STAT 145: Introduction to Statistics (3)
- ☐ MATH 162: Calculus I (4)

##### LABORATORY SCIENCES (8 CREDIT HOURS)

*Select from the following:*

- ☐ BIOL 110/112L: Biology/Biology Laboratory (Non-Majors) (3/1)
- ☐ BIOL 201: Molecular and Cell Biology (4)
- ☐ BIOL 202: Genetics (4)
- ☐ CHEM 111: Elements of General Chemistry (4)
- ☐ CHEM 121/123L: General Chemistry I(3)/General Chemistry I Lab (1)
- ☐ CHEM 122/124L: General Chemistry II(3)/General Chemistry II Lab (1)
- ☐ ASTR 101/111L: Introduction to Astronomy/Astronomy Laboratory (3/1)
- ☐ PHYC 102/112L: Introduction to Physics/Physics Laboratory (3/1)
- ☐ EPS 101/105L: Physical Geology/Physical Geology Laboratory (3/1)
- ☐ ENVS 101/102L: The Blue Planet/Blue Planet Lab (3/1)
- ☐ NTSC 261L: Physical Science (4)
- ☐ NTSC 262L: Life Science (4)
- ☐ NTSC 263L: Environmental Science (4)

SOCIAL/BEHAVIORAL SCIENCES (6 CREDIT HOURS)

*Select 2 courses from the following:*

- ☐ ANTH 130: Cultures of the World (3)
- ☐ ECON 105: Introductory Macroeconomics (3)
- ☐ ECON 106: Introductory Microeconomics (3)
- ☐ POLS 200: American Politics (3)
- ☐ PSY 105: General Psychology (3)
- ☐ SOC 101: Introduction to Sociology (3)
- ☐ AMST 182: Introduction to American Studies (3)
- ☐ AMST 185: Introduction to Race, Class & Ethnicity (3)
- ☐ ANTH 101: Introduction to Anthropology (3)
- ☐ GEOG 102: Human Geography (3)
- ☐ LING 101: Introduction to the Study of Language (3)
- ☐ POLS 110: The Political World (3)

HUMANITIES (6 CREDIT HOURS)

*Select from the following:*

- ☐ HIST 101: Western Civilization (3)
- or*
- ☐ HIST 102: Western Civilization (3)
- ☐ HIST 161: History of the United States (3)
- or*
- ☐ HIST 162: History of the United States (3)
- ☐ HIST 260: History of New Mexico (3)
- ☐ ENGL 150: The Study of Literature (3)
- ☐ ENGL 211: Topics in Literature (3)

FINE ARTS (3 CREDIT HOURS) (6 CREDIT HOURS)

*Select from the following:*

- ☐ ARTH 101: Introduction to Art (3)
- ☐ ARTH 201: History of Art I (3)
- ☐ ARTH 202: History of Art II (3)

- ☐ DANC 105: Dance Appreciation (3)
- ☐ MUS 139: Music Appreciation (3)
- ☐ MUS 298: Music for Elementary Teachers (3)
- ☐ PHIL 156: Reasoning and Critical Thinking (3)
- ☐ THEA 122: Introduction to Theatre (3)

FOREIGN LANGUAGE (3 CREDIT HOURS)

*Select one UNM Core Curriculum Course.*

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TOTAL GENERAL EDUCATION REQUIREMENTS

38-39 CREDIT HOURS

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## Technical Core Requirements

EDUCATION CORE COURSES (29 CREDIT HOURS)

- ☐ ECME 101: Child Growth, Development and Learning (3)
- ☐ ECME 103: Health, Safety and Nutrition (2)
- ☐ ECME 111: Family and Community Collaboration I (3)
- ☐ ECME 115: Guiding Young Children (3)
- ☐ ECME 117: Curriculum Development and Implementation I (3)
- ☐ ECME 117L: Curriculum Development and Implementation Practicum I (2)
- ☐ ECME 202: Introduction to Reading and Literacy Development (3)
- ☐ ECME 217: Curriculum Development and Implementation II (3)
- ☐ ECME 217L: Curriculum Development and Implementation Practicum II (2)
- ☐ ECME 220: Assessment of Children and Evaluation of Programs I (3)
- ☐ ECME 230: Professionalism (2)

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TOTAL EDUCATION CORE COURSES

29 CREDIT HOURS

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TOTAL CREDIT HOURS

67-68 CREDIT HOURS

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**Long-term planning and budgetary impact**

There is no budgetary impact caused by the deletion of this degree. Only one student was awarded this degree last year. No full-time or part-time instructor will lose employment as a result of the deletion of this degree program.

# Memorandum

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**To:** Kay Willerton, Interim Dean of Instruction  
**From:** Dennis Davies-Wilson, ~~Library~~ Director  
**Date:** October 19, 2015  
**Re:** Library impact for deletion of AA Program in Early Childhood Multi-Cultural Education  
Form C

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Proposed changes will not impact the library.



**UNM-Los Alamos  
Degree Program Deletion Proposal**

**Associate of Arts in Early Childhood Multicultural Education**

The UNM-Los Alamos Curriculum Committee has approved the deletion of the degree program indicated above.

Dennis Davies-Wilson 10-26-15  
Dennis Davies-Wilson, Chair                      Date

**Current user: ctorres / Comments (7) / Form Transaction Log**  
**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1741

Fields marked with \* are required

Name of Initiator: Kateri Ruth Morris Email: [katerim@unm.edu](mailto:katerim@unm.edu) Phone Number: 505 661-4693 Date: 10-27-2015Associated Forms exist?\*  Initiator's Title\* Admin Assistant to the Dean: Los Alamos Branch

Faculty Contact\* Kay Willerton

Administrative Contact\* Kateri Morris

Department\* Instruction

Admin Email\* [katerim@unm.edu](mailto:katerim@unm.edu)

Branch UNM-Los Alamos

Admin Phone\* 505-661-4693

Proposed effective term

Semester  Year **Course Information**Select Appropriate Program\* 

Name of New or Existing Program\* AA Pre-Professional Elementary Education (LA)

Select Category\*  Degree Type AASelect Action **Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

Revision of credit hours. Reducing the number of credit hours to meet requirements.

[FormC\\_AAPPEE\\_approval.pdf](#)**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[FormC\\_AAPPEE\\_approval.pdf](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[Approve and Sign Off](#)[Send back to Initiator \(Kateri Ruth Morris\)](#)  
[Comment on this Form](#)[Committee Review](#)

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# Proposed Revision of UNM-LA's Associate Arts in Pre-Professional Elementary Education

*Overall rationale for change: Reducing credit hours to meet state mandated change to 60 hours for Associate degree.*

| CURRENT TEXT                                                                                                                                                                                                                                                                                                                                                                                                                             | PROPOSED TEXT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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| <p><b>About the Program</b></p> <p>This degree program is designed for the student who is planning to transfer to a baccalaureate program upon completion. It is also designed to meet Level III/Paraprofessional licensure for educational assistants. It is the student's responsibility to contact his/her education advisor at the 4 year institution of his or her choice before registering for courses in the degree program.</p> | <p><b>About the Program</b></p> <p>This degree program is designed for the student who is planning to enter a baccalaureate program upon completion, or who wants to work as a school aide. It is the student's responsibility to contact his/her education advisor at the 4 year institution of his or her choice before registering for courses in the degree program. At UNM, Elementary Education students are required to complete a 24 credit hour concentration-teaching field. See subsequent page for specific teaching field requirements</p> <p><i>*Note: Lower Division Education courses will not substitute for Professional Education course requirements.</i></p> <p><b><i>Rationale: Students will be given more information about a Baccalaureate degree so they can make better decisions as they are completing their Associate degree.</i></b></p> |
| <p><b>Specific Requirements</b></p> <p>A minimum of 67 credit hours. At least 15 of these 67 hours must be UNM-LA catalog credit courses taken in residence. It is strongly recommended that the student check the specific requirements for the B.S. or B.A. he or she plans to pursue at the 4 year institution of their choice.</p>                                                                                                   | <p><b>Specific Requirements</b></p> <p>A minimum of 60 credit hours with a minimum cumulative grade point average of 2.75. At least 15 of these 60 credit hours must be credit courses taken at a UNM campus. It is strongly recommended that the student check the specific requirements for the B.S. or B.A. he or she plans to pursue at the 4 year institution of their choice.</p> <p><b><i>Rationale: Minimum credit hours revised to 60 and included GPA required by the College of Education.</i></b></p>                                                                                                                                                                                                                                                                                                                                                       |
| <p><b>General Education Requirements</b></p> <p>WRITING AND SPEAKING (12 CREDIT HOURS)<br/> ENGL 110: Accelerated Composition (3)<br/> or<br/> ENGL 112: Composition II (3)<br/> or<br/> ENGL 113: Enhanced Composition (3)<br/> ENGL 120: Composition III (3)</p>                                                                                                                                                                       | <p><b>General Education Requirements</b></p> <p>WRITING AND SPEAKING (9 CREDIT HOURS)<br/> <b>Required:</b> Choose one (1) course from the following:<br/> ENGL 110: Accelerated Composition (3)<br/> ENGL 112: Composition II (3)<br/> ENGL 113: Enhanced Composition (3)<br/> <b>Required:</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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| <p><i>AND choose 2 courses from:</i></p> <p>LING 101: Introduction to the Study of Language (3)</p> <p>CJ 130: Public Speaking (3)</p> <p>CJ 220: Communication for Teachers (3)</p> <p><i>maximum of one literature course (3) chosen from COMP 222, ENGL 107, ENGL 150, ENGL 211, ENGL 250, ENGL 264, ENGL 265, ENGL 292, ENGL 294, ENGL 295, ENGL 296, ENGL 297</i></p>                                                                                                                                                                                                                                                                               | <p>ENGL 120: Composition III (3)</p> <p><b>Required:</b> <i>Choose one (1) course from the following:</i></p> <p>CJ 130: Public Speaking (3)</p> <p>CJ 220: Communication for Teachers (3)</p> <p><b><i>Rationale: We are reducing required Writing and Speaking credit hours to 9 from 12 and relocating LING 101 to Social and Behavioral Sciences as the General Education Core Curriculum has it listed.</i></b></p>                                                                                                                                                                                                                                                                                                 |
| <p>MATHEMATICS (9 CREDIT HOURS)</p> <p><b>Select this sequence of three courses for K-8 teachers:</b></p> <p>MATH 111: Mathematics for Elementary/Middle School Teachers I (3)</p> <p>MATH 112: Mathematics for Elementary/Middle School Teachers II (3)</p> <p>MATH 215: Mathematics for Elementary/Middle School Teachers III (3)</p> <p><i>Or select three from the list below:</i></p> <p>MATH 121: College Algebra (3)</p> <p>MATH 123: Trigonometry (3)</p> <p>MATH 150: Precalculus (3)</p> <p>MATH 162: Calculus I (4) *</p> <p>STAT 145: Introduction to Statistics (3)</p> <p>*Note: Math 162 has a prerequisite of Math 150 and Math 123.</p> | <p>MATHEMATICS (9 CREDIT HOURS)</p> <p><b>Required:</b> <i>Select this sequence of three courses required at UNM for K-8 teachers:</i></p> <p>MATH 111: Mathematics for Elementary/Middle School Teachers I (3)</p> <p>MATH 112: Mathematics for Elementary/Middle School Teachers II (3)</p> <p>MATH 215: Mathematics for Elementary/Middle School Teachers III (3)</p> <p><i>Or select three from the list below:</i></p> <p>MATH 121: College Algebra (3)</p> <p>MATH 123: Trigonometry (3)</p> <p>MATH 150: Precalculus (3)</p> <p>MATH 162: Calculus I (4) *</p> <p>STAT 145: Introduction to Statistics (3)</p> <p>*Note: Math 162 has a prerequisite of Math 150 and Math 123.</p> <p><b><i>No Change</i></b></p> |
| <p>PHYSICAL AND NATURAL SCIENCE (12 CREDIT HOURS)</p> <p><i>Select this sequence of three NTSC courses for pre-service K-8 teachers only :</i></p> <p>NTSC 261L: Physical Science (4)</p> <p>NTSC 262L: Life Science (4)</p> <p>NTSC 263L: Environmental Science (4)</p> <p><i>Or, select three from this list below. Note: students may not earn credit for both BIOL 110/112L and BIOL 123/124L:</i></p> <p>BIOL 110: Biology for Non-Majors (3)</p> <p><i>and</i></p>                                                                                                                                                                                 | <p>PHYSICAL AND NATURAL SCIENCE (12 CREDIT HOURS)</p> <p><i>Select this sequence of three NTSC courses for pre-service K-8 teachers only :</i></p> <p>NTSC 261L: Physical Science (4)</p> <p>NTSC 262L: Life Science (4)</p> <p>NTSC 263L: Environmental Science (4)</p> <p><i>Note: Natural Science (NTSC) courses are recommended. However, any science course that meets the undergraduate core curriculum is acceptable.</i></p> <p><b><i>Rationale: Make the UNM-LA degree match the requirements for the UNM baccalaureate degree</i></b></p>                                                                                                                                                                      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>BIOL 112L: Biology Lab for Non-Majors (1)<br/> <i>or</i><br/> BIOL 123: Biology for Health Related Sciences and Non-Majors (3)<br/> <i>and</i><br/> BIOL 124L: Biology for Health Related Sciences and Non-Majors Lab (1)<br/> ASTR 101: Introduction To Astronomy (3)<br/> <i>and</i><br/> ASTR 101L: Astronomy Laboratory (1)<br/> ENVS 101: The Blue Planet (3)<br/> <i>and</i><br/> ENVS 102L: Blue Planet Lab (1)<br/> CHEM 111L: Elements of General Chemistry including Lab (4)<br/> EPS 101: How the Earth Works-An Introduction to Geology (3)<br/> <i>and</i><br/> EPS 105L: Physical Geology Lab (1)<br/> PHYC 102: Introduction to Physics (3)<br/> <i>and</i><br/> PHYC 102L: Physics Laboratory (1)<br/> GEOG 101: Physical Geography (3)<br/> <i>and</i><br/> GEOG 105L: Physical Geography Laboratory (1)</p> | <p><i>program.</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <p>SOCIAL AND BEHAVIORAL SCIENCES (6 CREDIT HOURS)<br/> <i>Select from:</i><br/> ANTH 101, ANTH 130, ECON 105, ECON 106, GEOG 102, POLS 110, POLS 200, PSY 105, SOC 101.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <p>SOCIAL AND BEHAVIORAL SCIENCES (9 CREDIT HOURS)<br/> <b>Required:</b><br/> LING 101: Introduction to the Study of Language (3)<br/> <br/> <b>Required:</b><br/> <i>Select 2 courses from:</i><br/> SOC 101, PSY 105, POLS 110, POLS 200, POLS 220, POLS 240, ANTH 101, ANTH 130, ECON 105, ECON 106, GEOG 102<br/> <br/> <i><b>Rationale: We moved LING 101 to the correct area and matched requirements to UNM's baccalaureate degree.</b></i></p> |
| <p>HUMANITIES (12 CREDIT HOURS)<br/> HIST 101: Western Civilization to 1648 (3)<br/> <i>or</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <p>HUMANITIES (12 CREDIT HOURS)<br/> <b>Required:</b> <i>Choose one (1) of the following:</i><br/> HIST 101: Western Civilization to 1648 (3)</p>                                                                                                                                                                                                                                                                                                      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                               |
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| <p>HIST 102: Western Civilization Post 1648 (3)</p> <p>HIST 161: History of the United States to 1877 (3)</p> <p>HIST 162: History of the United States Post 1877 (3)</p> <p>HIST 260: History of New Mexico (3)</p>                                                                                                                                                                                                                                                                                                                   | <p><i>or</i></p> <p>HIST 102: Western Civilization Post 1648 (3)</p> <p><b>Required:</b></p> <p>HIST 161: History of the United States to 1877 (3)</p> <p>HIST 162: History of the United States Post 1877 (3)</p> <p>HIST 260: History of New Mexico (3)</p> <p><b><i>No Change.</i></b></p> |
| <p>FOREIGN LANGUAGE (3 CREDIT HOURS)</p> <p>SPAN 101: Elementary Spanish I (3) (highly recommended.)</p>                                                                                                                                                                                                                                                                                                                                                                                                                               | <p>FOREIGN LANGUAGE (3 CREDIT HOURS)</p> <p><i>Select one course from lower-division non-English language offerings in the general education core curriculum (Area 6).</i></p> <p><b><i>Rationale: Match the UNM required curriculum</i></b></p>                                              |
| <p>FINE ARTS (6 CREDIT HOURS)</p> <p><i>Choose 2 courses from:</i></p> <p>ARTE 214: Art in Elementary and Special Classrooms I (3)</p> <p>MUSE 298: Music for the Elementary Teacher (3)</p> <p>ARTH 101: Introduction to Art (3)</p> <p>ARTH 201: History of Art I (3)</p> <p>ARTH 202: History of Art II (3)</p> <p>ARTH 251: Artistic Traditions of the Southwest (3)</p> <p>MUS 139: Music Appreciation (3)</p> <p>MUS 172: Jazz History (3)</p> <p>THEA 105: Theatre Appreciation (3)</p> <p>DANC 105: Dance Appreciation (3)</p> | <p>FINE ARTS (3 CREDIT HOURS)</p> <p><i>Select any course from the UNM Core Curriculum in Fine Arts (Area 7)</i></p> <p><b><i>Rationale: Change in wording to include Fine Arts General Education Core and meet the reduction of overall degree credit hour requirements.</i></b></p>         |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| <p><b>Technical Core Requirements</b></p> <p>COMPUTER TECHNOLOGY (4 CREDIT HOURS)</p> <p>CT 102: Introduction to Microcomputers on the PC<br/>(4)</p> <p>EDUCATION REQUIREMENTS (3 CREDITS)*</p> <p>LLSS 183: Introduction to Education in New Mexico<br/>(3)</p> <p><i>Note: Students planning to transfer to some New Mexico institutions will be required to take Field Experience (1) and Integrating Technology in the K-8 Classroom (2) with that institution either before or after transfer.</i></p> <p><i>Note: For students transferring to UNM–Albuquerque, Physical Education courses will not count as transfer credit. Some New Mexico institutions require a 1 credit hour physical education course that can be transferred. Please consult with the institution of your choice on its requirements for a Bachelor Degree</i><br/><i>Introductory Studies courses do not count toward fulfilling the requirements of this degree.</i></p> | <p><b>EDUCATION REQUIREMENT (3 CREDIT HOURS)</b></p> <p><i>Select one (1) course from</i></p> <p>EDUC 124: Intro to Computers in Education (3)<br/>EDUC 183: Intro to Education in New Mexico (3)<br/>EDUC 296: Internship (3)</p> <p><i>Note: Students planning to transfer to some New Mexico institutions will be required to take Field Experience (1) and Integrating Technology in the K-8 Classroom (2) with that institution either before or after transfer.</i></p> <p><i>Note: For students transferring to UNM–Albuquerque, Physical Education courses will not count as transfer credit. Some New Mexico institutions require a 1 credit hour physical education course that can be transferred. Please consult with the institution of your choice on its requirements for a Bachelor Degree</i><br/><i>Introductory Studies courses do not count toward fulfilling the requirements of this degree.</i></p> <p><b><i>Rationale: Students need exposure to their field of choice during their first 2 years. These courses give them a glimpse of their field of choice.</i></b></p> |
| <p><b>TOTAL CREDIT HOURS      67 CREDIT HOURS</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <p><b>TOTAL CREDIT HOURS      60 CREDIT HOURS</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

# Associate Arts in Pre-Professional Elementary Education

## About the Program

This degree program is designed for the student who is planning to enter a baccalaureate program upon completion, or who wants to work as a school aide. It is the student's responsibility to contact his/her education advisor at the 4 year institution of his or her choice before registering for courses in the degree program. At UNM, Elementary Education students are required to complete a 24 credit hour concentration-teaching field. See subsequent page for specific teaching field requirements

*\*Note: Lower Division Education courses will not substitute for Professional Education course requirements. Introductory Studies courses do not count toward fulfilling the requirements of this degree.*

## Specific Requirements

A minimum of 60 credit hours with a minimum cumulative grade point average of 2.75. At least 15 of these 60 credit hours must be credit courses taken at a UNM campus. It is strongly recommended that the student check the specific requirements for the B.S. or B.A. he or she plans to pursue at the 4 year institution of their choice.

## General Education Requirements

### WRITING AND SPEAKING (9 CREDIT HOURS)

**Required:** Choose one (1) course from the following:

ENGL 110: Accelerated Composition (3)

ENGL 112: Composition II (3)

ENGL 113: Enhanced Composition (3)

**Required:**

ENGL 120: Composition III (3)

**Required:** Choose one (1) course from the following:

CJ 130: Public Speaking (3)

CJ 220: Communication for Teachers (3)

### MATHEMATICS (9 CREDIT HOURS)

**Required:** Select this sequence of three courses required at UNM for K-8 teachers:

MATH 111: Mathematics for Elementary/Middle School Teachers I (3)

MATH 112: Mathematics for Elementary/Middle School Teachers II (3)

MATH 215: Mathematics for Elementary/Middle School Teachers III (3)

**Or select three from the list below:**

MATH 121: College Algebra (3)

MATH 123: Trigonometry (3)

MATH 150: Precalculus (3)

MATH 162: Calculus I (4) \*

STAT 145: Introduction to Statistics (3)

\*Note: Math 162 has a prerequisite of Math 150 and Math 123.



#### PHYSICAL AND NATURAL SCIENCE (12 CREDIT HOURS)

**Required:** *Select this sequence of three NTSC courses for pre-service K-8 teachers only:*

NTSC 261L: Physical Science (4)

NTSC 262L: Life Science (4)

NTSC 263L: Environmental Science (4)

**Note:** *Natural Science (NTSC) courses are recommended. However, any science course that meets the undergraduate core curriculum is acceptable.*

#### SOCIAL AND BEHAVIORAL SCIENCES (9 CREDIT HOURS)

**Required:**

LING 101: Introduction to the Study of Language (3)

**Required:**

*Select 2 courses from:*

SOC 101, PSY 105, POLS 110, POLS 200, POLS 220, POLS 240, ANTH 101, ANTH 130, ECON 105, ECON 106, GEOG 102

#### HUMANITIES (12 CREDIT HOURS)

**Required:** *Choose one (1) of the following:*

HIST 101: Western Civilization to 1648 (3)

*or*

HIST 102: Western Civilization Post 1648 (3)

**Required:**

HIST 161: History of the United States to 1877 (3)

HIST 162: History of the United States Post 1877 (3)

HIST 260: History of New Mexico (3)

#### FOREIGN LANGUAGE (3 CREDIT HOURS)

*Select one course from lower-division non-English language offerings in the general education core curriculum (Area 6).*

#### FINE ARTS (3 CREDIT HOURS)

*Select any course from the UNM Core Curriculum in Fine Arts (Area 7)*

#### EDUCATION REQUIREMENT (3 CREDIT HOURS)

*Select one (1) course from*

EDUC 124: Intro to Computers in Education (3)

EDUC 183: Intro to Education in New Mexico (3)

EDUC 296: Internship (3)

**TOTAL CREDIT HOURS      60 CREDIT HOURS**

### Budget and Faculty Load

There will be no impact to the budget or the faculty load since there are no new courses or faculty requirements. This change is for the purpose of reducing the number of credit hours in the degree program.

# Memorandum

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**To:** Kay Willerton, Interim Dean of Instruction  
**From:** Dennis Davies-Wilson, Library Director  
**Date:** October 19, 2015  
**Re:** Library support for revisions to AA Program in Pre-Professional Elementary Education  
Form C

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Proposed changes will not impact the library's current level of support for the program.

**UNM-Los Alamos  
Degree Program Change Proposal**

**Associate of Arts in Pre-Professional Elementary Education**

The UNM-Los Alamos Curriculum Committee has approved the proposed changes associated with the degree program indicated above.

Dennis Davies-Wilson 10-26-15  
Dennis Davies-Wilson, Chair                      Date

**Current user: ctorres / Comments (7) / Form Transaction Log**  
**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1760

Fields marked with \* are required

Name of Initiator: Kateri Ruth Morris Email: [katerim@unm.edu](mailto:katerim@unm.edu) Phone Number: 505 661-4693 Date: 10-29-2015Associated Forms exist?\*  Initiator's Title\* Admin Assistant to the Dean: Los Alamos Branch

Faculty Contact\* Sharon Hurley-Johns

Administrative Contact\* Kateri Morris

Department\* Computer Science

Admin Email\* [katerim@unm.edu](mailto:katerim@unm.edu)

Branch UNM-Los Alamos

Admin Phone\* 505-661-4693

Proposed effective term

Semester  Year **Course Information**Select Appropriate Program\* 

Name of New or Existing Program\* AS Computer Science (LA)

Select Category\*  Degree Type ASSelect Action **Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

Reducing credit hours to meet requirements.

[FormC\\_AASCS\\_approved.pdf](#)**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[FormC\\_AASCS\\_approved.pdf](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[Approve and Sign Off](#)[Send back to Initiator \(Kateri Ruth Morris\)](#)  
[Comment on this Form](#)[Committee Review](#)

Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001

## Proposed Revision of UNM-LA's Computer Science Degree

*Overall rationale for change: Reducing credit hours to meet mandated change to 62 hours for Associate degree, update general education requirements as set forth by main campus, update required additional courses in math and science as required by the CS department at main campus.*

### CURRENT TEXT

#### About the Program

This is a transfer degree program designed for students interested in pursuing a baccalaureate degree in computer science. Program content is based upon the computer science baccalaureate degree offered at UNM Albuquerque campus in the School of Engineering.

#### Specific Requirements:

**A minimum of 67 credit hours with a minimum cumulative grade point average of 2.0.** At least 15 of these 67 hours must be credit courses taken at a UNM campus. CS 151 or CS 152 must be completed with a B- or better. All other computer science component courses must be completed with a minimum grade of C or better. Math 162 must be completed with a grade of B- or better. All other courses used for this degree must be completed with a minimum grade of C or better. It is strongly recommended that the student check the specific requirements for the B.S. or B.A. of interest if planning to transfer in order to make the best choices among the optional courses below

#### General Education Requirements

##### Writing and Speaking: (9 Credit hours)

ENGL 110: Accelerated Composition (3) *or* ENGL 112: Composition II (3) *or*

### PROPOSED REVISION

#### About the Program

This is a transfer degree program designed for students interested in pursuing a baccalaureate degree in computer science. Program content is based upon the computer science baccalaureate degree offered at UNM Albuquerque campus in the School of Engineering.

***NO change in this text.***

#### Specific Requirements

**A minimum of 62 credit hours with a minimum cumulative grade point average of 2.0.** At least 15 of these 62 hours must be credit courses taken at a UNM campus. CS 151 or CS 152 must be completed with a B- or better. All other computer science component courses must be completed with a minimum grade of C or better. Math 162 must be completed with a grade of B- or better. All other courses used for this degree must be completed with a minimum grade of C or better. It is strongly recommended that the student check the specific requirements for the B.S. or B.A. of interest if planning to transfer in order to make the best choices among the optional courses below

*Students with limited experience or coursework in Computer Science are strongly encouraged to take CS 101 prior to enrolling in CS 152L.*

***Rationale: Reduce minimum credit hours to 62. Add suggested prerequisite CS 101.***

#### General Education Requirements

##### Writing and Speaking: (9 credit hours)

ENGL 110: Accelerated Composition (3) *or* ENGL 112: Composition II (3) *or*

|                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ENGL 113: Enhanced Composition (3)                                                                                                                                                                                                                                                                                                                                                                        | ENGL 113: Enhanced Composition (3)                                                                                                                                                                                                                                                                                                                                                                           |
| ENGL 120: Composition III (3)                                                                                                                                                                                                                                                                                                                                                                             | ENGL 120: Composition III (3)                                                                                                                                                                                                                                                                                                                                                                                |
| ENGL 219: Technical and Professional Writing (3)                                                                                                                                                                                                                                                                                                                                                          | ENGL 219: Technical and Professional Writing (3)                                                                                                                                                                                                                                                                                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                           | <i>NO Changes</i>                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>MATHEMATICS AND STATISTICS (8 CREDIT HOURS)</b>                                                                                                                                                                                                                                                                                                                                                        | <b>MATHEMATICS AND STATISTICS (8 CREDIT HOURS)</b>                                                                                                                                                                                                                                                                                                                                                           |
| MATH 162: Calculus I (4) (with a grade of B- or better)                                                                                                                                                                                                                                                                                                                                                   | MATH 162: Calculus I (4) (with a grade of B- or better)                                                                                                                                                                                                                                                                                                                                                      |
| MATH 163: Calculus II (4)                                                                                                                                                                                                                                                                                                                                                                                 | MATH 163: Calculus II (4)                                                                                                                                                                                                                                                                                                                                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                           | <i>NO changes</i>                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>PHYSICAL AND NATURAL SCIENCE (14 CREDIT HOURS)</b> <i>Four science courses (of 3 or more credit hours) taken by science and engineering majors, two of which must come from one of the following sequences, including the laboratories. The remaining hours can be more advanced courses in the discipline chose for the sequence or they can be additional introductory laboratory science hours.</i> | <b>Physical and Natural Sciences (10 credit hours)</b> <i>Three science courses (of 3 or more credit hours) taken by science and engineering majors, one of which must come from one of the following sequences, including the laboratories. The remaining hours can be more advanced courses in the discipline chosen for the sequence or they can be additional introductory laboratory science hours.</i> |
| <i>Physics is strongly recommended.</i>                                                                                                                                                                                                                                                                                                                                                                   | <i>Physics is strongly recommended.</i>                                                                                                                                                                                                                                                                                                                                                                      |
| <i>Note: Students may not take both the sequence EPS 101, EPS 105L, EPS 201L AND the sequence ENVS 101, ENVS 102L, EPS 201L.</i>                                                                                                                                                                                                                                                                          | <i>Note: Students may not take both the sequence EPS 101, EPS 105L, EPS 201L AND the sequence ENVS 101, ENVS 102L, EPS 201L.</i>                                                                                                                                                                                                                                                                             |
| ASTR 270 and 270L: General Astronomy and General Astronomy Laboratory I (4)                                                                                                                                                                                                                                                                                                                               | <i>Students planning to transfer to UNM main campus to pursue a four year program in computer science should consider enrolling in an additional 4 hours of physical and natural science (course and lab) to meet departmental requirements. Students should verify specific requirements with intended transfer institution.</i>                                                                            |
| ASTR 271 and 271L: General Astronomy and General Astronomy Laboratory I (4)                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                              |
| BIOL 201: Molecular and Cell Biology (4)                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                              |
| BIOL 202: Genetics (4)                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                                                                                                                                                                                                                                                                                                                                                                                           | ASTR 270 and 270L: General Astronomy and General Astronomy Laboratory I (4)                                                                                                                                                                                                                                                                                                                                  |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>CHEM 121 and CHEM 123L: General Chemistry I and General Chemistry Laboratory 1 (4)</p> <p>CHEM 122 and CHEM 124L: General Chemistry II and General Chemistry Laboratory II (4)</p> <p>EPS 101 and EPS 105L: How the Earth Works – An Introduction to Geology and Physical Geology Laboratory (4)</p> <p>EPS 201L: Earth History (4)</p> <p>ENVS 101 and ENVS 102L: The Blue Planet and The Blue Planet Laboratory (4)</p> <p>EPS 201L: Earth History (4)</p> <p>PHYC 160 and 160L: General Physics and General Physics Laboratory (4)</p> <p>PHYC 161 and 161L: General Physics and General Physics Laboratory (4)</p> | <p>ASTR 271 and 271L: General Astronomy and General Astronomy Laboratory I (4)</p> <p>BIOL 201: Molecular and Cell Biology (4)</p> <p>BIOL 202: Genetics (4)</p> <p>CHEM 121 and CHEM 123L: General Chemistry I and General Chemistry Laboratory 1 (4)</p> <p>CHEM 122 and CHEM 124L: General Chemistry II and General Chemistry Laboratory II (4)</p> <p>EPS 101 and EPS 105L: How the Earth Works – An Introduction to Geology and Physical Geology Laboratory (4)</p> <p>EPS 201L: Earth History (4)</p> <p>ENVS 101 and ENVS 102L: The Blue Planet and The Blue Planet Laboratory (4)</p> <p>EPS 201L: Earth History (4)</p> <p>PHYC 160 and 160L: General Physics and General Physics Laboratory (4)</p> <p>PHYC 161 and 161L: General Physics and General Physics Laboratory (4)</p> <p><i><b>Rationale: Reducing required physical and natural science to meet 62 hour standard.</b></i></p> |
| <p><b>Foreign Language (3 Credit Hours)</b></p> <p><i>Students Should Select Any Applicable Course From UNM Core Curriculum Not Applied Elsewhere For This Degree.</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                | <p><b>Foreign Language</b> (non-English language; 3 credit hours): One course chosen from any of the lower-division non-English language offerings of the Departments of Linguistics (including Sign Language), Spanish and Portuguese, Foreign Languages and Literatures, and foreign languages in other departments and programs.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |



|                                                                                                                                           |                                                                                                                                                                                                                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                           | <i><b>Rationale: clarify foreign language requirement to meet UNM general education core.</b></i>                                                                                                                                                                                  |
| <b>HUMANITIES AND SOCIAL AND BEHAVIORAL SCIENCES (6 CREDIT HOURS)</b><br><br><i>Select any UNM Core curriculum courses in these areas</i> | <b>Social and Behavioral Sciences (6 credit hours):</b><br><br><i>Select any UNM Core curriculum courses in these areas</i><br><br><i><b>Rationale: separate humanities and social science to meet general education requirements at UNM. Six hours required in each area.</b></i> |
|                                                                                                                                           | <b>Humanities (6 credit hours):</b><br><br><i>Select any UNM Core curriculum course in this area</i><br><br><i><b>Rationale: separate humanities and social science to meet general education requirements at UNM. Six hours required in each area.</b></i>                        |
| <b>Fine Arts (3 credit hours):</b><br><br><i>Select any UNM Core curriculum course in this area</i>                                       | <b>Fine Arts (3 credit hours):</b><br><br><i>Select any UNM Core curriculum course in this area</i><br><br><b><i>NO Change</i></b>                                                                                                                                                 |
| TOTAL GENERAL EDUCATION REQUIREMENTS 43 CREDIT HOURS                                                                                      | TOTAL GENERAL EDUCATION REQUIREMENTS 45 CREDIT HOURS<br><br><i><b>Total General Education Requirements changed to align with general education requirements at UNM plus additional requirements for CS department: 45 credit hours.</b></i>                                        |

## Technical Core Requirements

### COMPUTER SCIENCE (24 CREDIT HOURS)

- CS 101: Introduction to Computing Science (4)
- CS 151L: Computer Programming Fundamentals for Non-Majors (3) (with a grade of B-or better)

*or*

- CS 152L: Computer Programming Fundamentals (3) (recommended) (with a grade of B- or better)
- CS 220: Systems Analysis and Design (3)
- CS 241L: Data Organization (3)
- CS 251L: Intermediate Programming (3)
- CS 261: Mathematical Foundations of Computer Science (3)
- CS 293: Social and Ethical Computing (1)
- ECE 238L: Computer Logic Design (4)

**TOTAL TECHNICAL CORE REQUIREMENTS 24 CREDIT HOURS**

**TOTAL CREDIT HOURS 67 CREDIT HOURS**

## Technical Core Requirements ( 17 credit hours)

CS 151L: Computer Programming Fundamentals for Non-Majors (3) (with a grade of B-or better)

*or*

CS 152L: Computer Programming Fundamentals (3) (recommended) (with a grade of B- or better)

CS 241L: Data Organization (3)

CS 251L: Intermediate Programming (3)

CS 261: Mathematical Foundations of Computer Science (3)

CS 293: Social and Ethical Computing (1)

ECE 238L: Computer Logic Design (4)

**TOTAL TECHNICAL CORE REQUIREMENTS 17 CREDIT HOURS**

*Rationale: Reducing technical core requirements to align with main campus CS program and to meet 62 hour requirement. Removed CS 220 and CS 101 from the required core list to align with main campus program. CS 101 will remain as a suggested prerequisite for CS 151L or CS 152L .*

**TOTAL CREDIT HOURS**

**62 CREDIT HOURS**

# Memorandum

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**To:** Kay Willerton, Interim Dean of Instruction  
**From:** Dennis Davies-Wilson,  Library Director  
**Date:** October 19, 2015  
**Re:** Library support for revisions of AAS Program in Computer Science Form C

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Proposed changes will not impact the library's current level of support for the program.

**UNM-Los Alamos  
Degree Program Change Proposal**

**Associate of Applied Science in Computer Science**

The UNM-Los Alamos Curriculum Committee has approved the proposed changes associated with the degree program indicated above.

Dennis Davies-Wilson 10-30-15  
Dennis Davies-Wilson, Chair                      Date

Current user: ctorres / **Comments (7)** / Form Transaction Log**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C  
Form Number: C1776**

Fields marked with \* are required

Name of Initiator: Yu-Lin Shen Email: [shenyl@unm.edu](mailto:shenyl@unm.edu) Phone Number: 505 277-6286 Date: 10-29-2015**Associated Forms exist?\*** No **Initiator's Title\*** Professor: Mechanical Engineering**Faculty Contact\*** Yu-Lin Shen**Administrative Contact\*** Heather Armstrong**Department\*** Mechanical Engineering**Admin Email\*** [heathera@unm.edu](mailto:heathera@unm.edu)**Branch****Admin Phone\*** 277-1326**Proposed effective term**

Semester Spring Year 2016

**Course Information****Select Appropriate Program\*** Graduate Degree Program**Name of New or Existing Program\*** M.S. in Mechanical Engineering**Select Category \*** Degree Degree Type

Select Action Revision

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[UNM\\_Catalog\\_Descriptions.docx](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

UNM Graduate Studies has made available the Plan III (coursework only) M.S. degree. Department of Mechanical Engineering has decided to add Plan III as one of the M.S. degree options.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[justification.docx](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[Approve and Sign Off](#)[Send back to Initiator \(Yu-Lin Shen\)  
Comment on this Form](#)[Committee Review](#)

Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001

## **Current UNM Catalog Description**

### **Master of Science in Mechanical Engineering**

A minimum of 24 credit hours of 500-level credit is required for all students pursuing the Master of Science (M.S.) in Mechanical Engineering degree program.

**Plan I** (Thesis) This degree plan requires 31 credit hours. Six (6) credit hours (ME 599) are required for a thesis. A seminar course must be taken for two semesters.

**Plan I** (Non-Thesis) This degree plan requires 34 credit hours. Three (3) credit hours (ME 559) are required for a project. A seminar course must be taken for two semesters.

**Optional Concentration in Manufacturing Engineering:** The M.S. with the Manufacturing Engineering concentration requires 37 credit hours and a three-month industrial internship in a manufacturing setting. At least three electives for this program must be selected from a set of engineering science courses defined by the department.

### **Notes Regarding the Master of Engineering in Manufacturing Engineering**

The Master of Engineering in Manufacturing Engineering (M.E.M.E.) degree is offered by the Manufacturing Engineering Program (MEP). This program is (administratively) separate from the ME Department at the University of New Mexico and is housed in the Manufacturing Technology and Training Center (MTTC), located in the South Campus. Details of this degree program are found in the [School of Engineering](#) section of this Catalog.

## **Proposed UNM Catalog Description (additions in color)**

### **Master of Science in Mechanical Engineering**

A minimum of 24 credit hours of 500-level credit is required for all students pursuing the Master of Science (M.S.) in Mechanical Engineering degree program.

**Plan I** (Thesis) This degree plan requires 31 credit hours. Six (6) credit hours (ME 599) are required for a thesis. A seminar course must be taken for two semesters.

**Plan II** (Non-Thesis) This degree plan requires 34 credit hours. Three (3) credit hours (ME 559) are required for a project. A seminar course must be taken for two semesters.

**Plan III** (Coursework Only) This degree plan requires 34 credit hours of regular coursework. A seminar course must be taken for two semesters.

Other program information and requirements are available at the department website.

**Optional Concentration in Manufacturing Engineering:** The M.S. with the Manufacturing Engineering concentration requires 37 credit hours and a three-month industrial internship in a manufacturing setting. At least three electives for this program must be selected from a set of engineering science courses defined by the department.

### **Notes Regarding the Master of Engineering in Manufacturing Engineering**

The Master of Engineering in Manufacturing Engineering (M.E.M.E.) degree is offered by the Manufacturing Engineering Program (MEP). This program is (administratively) separate from the ME Department at the University of New Mexico and is housed in the Manufacturing Technology and Training Center (MTTC), located in the South Campus. Details of this degree program are found in the [\*School of Engineering\*](#) section of this Catalog.

UNM Graduate Studies has made available the Plan III option (coursework only) within the M.S. degree. Department of Mechanical Engineering faculty has voted, on 10/19/2015, to add Plan III as one of the options for its M.S. degree. There will be no impact on planning, budget, and faculty workload. The current graduate course offerings are sufficient to accommodate the new Plan III. It is anticipated that this new option will attract more students, especially those who are working professionals or student employees in government laboratories and local industries.

Assessment of outcomes will follow the current rubric for the Plan I and Plan II M.S. degree in Mechanical Engineering. Each student will have an academic advisor who provides supervision and guidance for the student's course selection and progress. The assessment will be conducted by the advisor and the Graduate Program Director, at the time when the student completes all the degree requirement.



Current user: ctorres / **Comments (8)** / Form Transaction Log**Curriculum Workflow**
[Link to Curricula Forms Process Manual](#)
**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1791


Fields marked with \* are required

Name of Initiator: John David Quale Email: [quale@unm.edu](mailto:quale@unm.edu) Phone Number: 505 277-1199 Date: 10-31-2015

Associated Forms exist?\* No Initiator's Title\* Professor: SAAP Architecture Program

Faculty Contact\* John Quale

Administrative Contact\* John Quale

Department\* Architecture

Admin Email\* [quale@unm.edu](mailto:quale@unm.edu)

Branch

Admin Phone\* 505-277-1199

Proposed effective term

Semester Fall Year 2016

## Course Information

Select Appropriate Program\* Undergraduate Degree Program

Name of New or Existing Program\* Architecture Minor (NEW)

Select Category \* Minor Degree Type undergraduate

Select Action New

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[Architecture minor FINAL.xlsx](#)
☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.
**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

This does not impact other departmental programs or branch campuses -- see description attached below. [REGISTRAR'S NOTE TO VAL: SEE COMMENTS.]

[Architecture Minor description.pdf](#)
**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)
[Architecture Minor description.pdf](#)
☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.
**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[Approve and Sign Off](#)[Send back to Initiator \(John David Quale\)  
Comment on this Form](#)[Committee Review](#)

Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001

## Architecture Minor

Students that want to pursue a minor in Architecture need to enroll in 18 credit hours. The required courses and electives (listed below) are selected to provide students an opportunity to experience the broad range of knowledge necessary to study architecture. A minimum grade of C is required for these courses to count towards the minor.

|                           |                                                                                                                                                                                                                                                                     |           |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| ARCH 109                  | Design Fundamentals                                                                                                                                                                                                                                                 | 3         |
| ARCH 111                  | Introduction to Architectural Graphics                                                                                                                                                                                                                              | 3         |
| ARCH 133                  | Physics & Math for Designers                                                                                                                                                                                                                                        | 3         |
| ARCH 201                  | Architectural Design I                                                                                                                                                                                                                                              | 5         |
| visualization<br>elective | Students can choose from an version of the ARCH 472 Architectural Visualization options.                                                                                                                                                                            | 1         |
| architectural<br>elective | Students can choose to enroll in ARCH 224, World Architecture II or any architectural elective -- typically ARCH 462 classes. Special permission will be considered for enrollment in any other courses that are required for the Bachelor of Arts in Architecture. | 3         |
|                           |                                                                                                                                                                                                                                                                     |           |
|                           | Total                                                                                                                                                                                                                                                               | <b>18</b> |

## **Architecture Minor PROPOSED**

Each year a handful of students move out of the Bachelor of Arts in Architecture (BAA) program to pursue another major. Often these students make this decision after they have taken at least 18 credit hours of coursework.

In addition, we often have students that take our ARCH 121 Introduction to Architecture course (a course that is regularly filled) that have developed an appreciation for architecture but still pursue another major. Sometimes these students choose to eventually pursue a three year professional Master of Architecture degree, similar to the Track 3 of our MArch. In fact, we currently have four Track 3 students that received their undergraduate degree from UNM, but did not complete a BAA. Yet all of them took at least two or three architecture courses – one of them took almost two years of courses.

We believe this demonstrates the potential of a Minor in Architecture. We predict that this minor could graduate as many as a dozen students each year without much recruiting. With an aggressive recruiting campaign, we could double that.

We also feel that an architecture minor will help with recruitment for the Track 3 of our MArch degree.

### **Implications on Faculty Load and / or Budget:**

The requirements for the minor are all courses currently offered in the program, that typically have room for a few additional students.

Therefore, there is no faculty load or budget impact.

**Current user: ctorres / Comments (7) / Form Transaction Log**  
**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1794

Fields marked with \* are required

Name of Initiator: John David Quale Email: [quale@unm.edu](mailto:quale@unm.edu) Phone Number: 505 277-1199 Date: 10-31-2015

Associated Forms exist?\* Yes Initiator's Title\* Professor: SAAP Architecture Program

Faculty Contact\* John Quale

Administrative Contact\* John Quale

Department\* Architecture

Admin Email\* [quale@unm.edu](mailto:quale@unm.edu)

Branch

Admin Phone\* 505-277-1199

Proposed effective term

Semester Summer Year 2016

**Course Information**

Select Appropriate Program\* Graduate Degree Program

Name of New or Existing Program\* Master of Architecture -Track Three

Select Category \* Degree Degree Type

Select Action Revision

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[MArch Track 3 curriculum FINAL.pdf](#)[OLD NEW MArch Track 3 curriculum FINAL.pdf](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

no

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[MArch Track 3 changes.pdf](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[Approve and Sign Off](#)[Send back to Initiator \(John David Quale\)  
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# Master of Architecture (MArch)

## Track 3

### First Year

| <b>SUMMER</b> |                                   |           |
|---------------|-----------------------------------|-----------|
| ARCH 500      | Graduate Architectural Design I   | 6         |
| ARCH 570      | Introduction to Visualization     | 1         |
|               | <b>Total</b>                      | <b>7</b>  |
| <b>FALL</b>   |                                   |           |
| ARCH 501      | Graduate Architectural Design II  | 6         |
| ARCH 521      | Architectural Analysis            | 3         |
| ARCH 523      | World Architecture I              | 3         |
| ARCH 532      | Architectural Structures I        | 3         |
| ARCH 572      | Design Visualization ***          | 1         |
|               | <b>Total</b>                      | <b>16</b> |
| <b>SPRING</b> |                                   |           |
| ARCH 502      | Graduate Architectural Design III | 6         |
| ARCH 524      | World Architecture II             | 3         |
| ARCH 531      | Graduate Construction I           | 3         |
| ARCH 533      | Architectural Structures II       | 3         |
| ARCH 572      | Design Visualization ***          | 1         |
|               | <b>Total</b>                      | <b>16</b> |
|               | <b>1st Year Minimum Total</b>     | <b>39</b> |

### Second Year

| <b>FALL</b>   |                                        |           |
|---------------|----------------------------------------|-----------|
| ARCH 601      | Masters Architectural Design I         | 6         |
| ARCH 633      | Sustainability II                      | 3         |
| ARCH 634      | Systems Integration I                  | 3         |
| ARCH 652      | Pre-Design & Architectural Programming | 3         |
|               | <b>Total</b>                           | <b>15</b> |
| <b>SPRING</b> |                                        |           |
| ARCH 602      | Masters Architectural Design II        | 6         |
| ARCH 621      | Research Methodology                   | 3         |
| ARCH 624      | Architectural Theory                   | 3         |
| ARCH 635      | Systems Integration II                 | 3         |
|               | <b>Total</b>                           | <b>15</b> |
|               | <b>2nd Year Minimum Total</b>          | <b>30</b> |

| Third Year                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                    |           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-----------|
| <b>FALL</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                    |           |
| ARCH 603 <b>OR</b><br>ARCH 596*                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Masters Architectural Design III <b>OR</b> Masters Thesis Prep                                     | 6         |
| ARCH 651                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Professional Practice                                                                              | 3         |
| ARCH 596*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Three credits of Masters Project Prep is required if planning on Masters Project in final semester |           |
| LA 556                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Site/Environment                                                                                   | 3         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Architectural History or Theory elective                                                           | 3         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Total</b>                                                                                       | <b>15</b> |
| <b>SPRING</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                    |           |
| ARCH 604 <b>OR</b><br>ARCH 597 <b>OR</b><br>ARCH 599*                                                                                                                                                                                                                                                                                                                                                                                                                                        | Masters Architectural Design IV <b>OR</b> Masters Project <b>OR</b> Masters Thesis                 | 6         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 9 elective credits** in any graduate level course.                                                 | 9         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Total</b>                                                                                       | <b>15</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>3rd Year Minimum Total</b>                                                                      | <b>30</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>GRAND TOTAL</b>                                                                                 | <b>99</b> |
| <p>* After the Masters Review, MArch students will be in one of three degree plans to graduate. Plan I (Masters Thesis) requires six credit hours of ARCH 596 in the Fall, and ARCH 599 in the Spring. Plan II (Masters Project) requires three credit hours of ARCH 596 in the Fall, and ARCH 597 in the Spring. Plan III students take ARCH 603 in the Fall and ARCH 604 in the Spring. Masters Project students can use their three credits in ARCH 596 to count as elective credits.</p> |                                                                                                    |           |
| <p>** NAAB accreditation requires students to have a minimum total of 45 credit hours in non-architectural coursework in their undergraduate and graduate education combined. If necessary, students should use their electives to get to this number.</p>                                                                                                                                                                                                                                   |                                                                                                    |           |
| <p>***3 year MArch students can take this Architectural Vizualization class from among any of the 1 or 2 credit ARCH 672 options anytime during their curriculum.</p>                                                                                                                                                                                                                                                                                                                        |                                                                                                    |           |

## **Master of Architecture (MArch)**

### **Track 3 REVISED**

The Track 3 of the MArch is for students who have an undergraduate in something other than Architecture.

This revision to the track is relatively minor. It proposed the introduction of two new required courses, deletes one course and changes the courses names and / or course numbers for several more. The course name and course number changes are for clarity – allowing for more accurate names, and course numbers that have an integral logic to them.

#### **Implications on Faculty Load and / or Budget:**

There is no faculty load or budget impact because this is a minor revision of the MArch degree we currently offer.

**Current user: ctorres / Comments (7) / Form Transaction Log**  
**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1795

Fields marked with \* are required

Name of Initiator: John David Quale Email: [quale@unm.edu](mailto:quale@unm.edu) Phone Number: 505 277-1199 Date: 11-01-2015

Associated Forms exist?\* Yes Initiator's Title\* Professor: SAAP Architecture Program

Faculty Contact\* John Quale

Administrative Contact\* John Quale

Department\* Architecture

Admin Email\* [quale@unm.edu](mailto:quale@unm.edu)

Branch

Admin Phone\* 505-277-1199

Proposed effective term

Semester Fall Year 2016

## Course Information

Select Appropriate Program\* Graduate Degree Program

Name of New or Existing Program\* Master of Architecture - Track 2.5

Select Category \* Degree Degree Type

Select Action Revision

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[MArch Track 2 5 curriculum FINAL.pdf](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.

Reason(s) for Request\* (enter text below or upload a doc/pdf file)

no

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[MArch Track 2.5 changes.pdf](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[Approve and Sign Off](#)[Send back to Initiator \(John David Quale\)  
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| <b>Master of Architecture (MArch)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                      |           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-----------|
| <b>Track 2.5</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                      |           |
| <b>First Year</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                      |           |
| <b>FALL</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                      |           |
| ARCH 601                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Masters Architectural Design I                                       | 6         |
| ARCH 633                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Sustainability II                                                    | 3         |
| ARCH 634                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Systems Integration I                                                | 3         |
| ARCH 652                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Pre-Design & Architectural Programming                               | 3         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Total</b>                                                         | <b>15</b> |
| <b>SPRING</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                      |           |
| ARCH 602                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Masters Architectural Design II (spring or summer)                   | 6         |
| ARCH 621                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Research Methodology                                                 | 3         |
| ARCH 624                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Architectural Theory                                                 | 3         |
| ARCH 635                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Systems Integration II                                               | 3         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Total</b>                                                         | <b>15</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>1st Year Minimum Total</b>                                        | <b>30</b> |
| <b>Second Year</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                      |           |
| <b>FALL</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                      |           |
| ARCH 603                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Masters Architectural Design III                                     | 6         |
| ARCH 651                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Professional Practice                                                | 3         |
| LA 556                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Site/Environment                                                     | 3         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Total</b>                                                         | <b>12</b> |
| <b>SPRING</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                      |           |
| ARCH 604 OR<br>ARCH 596*                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Masters Architectural Design III OR Masters Thesis Prep              | 6         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Open Elective OR Masters Project Prep OR Thesis Prep                 | 6         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Architectural History or Theory elective                             | 3         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Total</b>                                                         | <b>15</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>2nd Year Minimum Total</b>                                        | <b>27</b> |
| <b>Third Year ***</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                      |           |
| <b>FALL</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                      |           |
| ARCH 605 OR<br>ARCH 597 OR<br>ARCH 599*                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Masters Architectural Design IV OR Masters Project OR Masters Thesis | 6         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 6 elective credits** in any graduate level course.                   | 6         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Total</b>                                                         | <b>12</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>3rd Year Minimum Total</b>                                        | <b>12</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>GRAND TOTAL</b>                                                   | <b>69</b> |
| <p>* After the Masters Review, MArch students will be in one of three degree plans to graduate. Plan I (Masters Thesis) requires six credit hours of ARCH 596 in the Fall, and ARCH 599 in the Spring. Plan II (Masters Project) requires three credit hours of ARCH 596 in the Fall, and ARCH 597 in the Spring. Plan III students take ARCH 603 in the Fall and ARCH 604 in the Spring. Masters Project students can use their three credits in ARCH 596 to count as elective credits.</p> |                                                                      |           |
| <p>** NAAB accreditation requires students to have a minimum total of 45 credit hours in non-architectural coursework in their undergraduate and graduate education combined. If necessary, students should use their electives to get to this number.</p>                                                                                                                                                                                                                                   |                                                                      |           |
| <p>*** The Track 2.5 can be completed in two years if the student also takes a studio and other classes during with the summer.</p>                                                                                                                                                                                                                                                                                                                                                          |                                                                      |           |

## **Master of Architecture (MArch)**

### **Track 2.5 PROPOSED**

We are proposing a new Track 2.5 of the Master of Architecture (MArch). Currently we have a Track 3 for students that have little or no background in architecture. It takes three years plus part of a summer to complete. We also have a Track 2 for students who have a four year undergraduate degree in architecture, and it take two years to complete.

The proposed Track 2.5 is for students that have some background in architecture, but not as much as our undergraduate BAA students. We expect the Track 2.5 option to give use a competitive edge because very few schools have this option.

The curriculum assumes the Track 2.5 students will begin at their sequence at the beginning of the second year for the Track 3 students, which is also the beginning of the first year for the Track 2 students. From the moment they join the program, they will take the same courses as the Track 3 and Track 2 students. However, the Track 2.5 students will have to take classes during a summer, or stay for an additional semester compared to the Track 2 students.

#### **Implications on Faculty Load and / or Budget:**

There is no faculty load or budget impact because this is a minor revision of the MArch degree we currently offer. We have capacity in our enrollment to include students in a Track 2.5 without having to add additional sections. If enrollment substantially grows, and we find we don't have enough faculty, we will hire part time faculty to fill the gap. Our predicted enrollment of Track 2.5 students in the first five years is 4-5 students a year.

Current user: ctorres / **Comments (7)** / Form Transaction Log**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C  
Form Number: C1796**

Fields marked with \* are required

Name of Initiator: John David Quale Email: [quale@unm.edu](mailto:quale@unm.edu) Phone Number: 505 277-1199 Date: 11-01-2015

Associated Forms exist?\* Yes Initiator's Title\* Professor: SAAP Architecture Program

Faculty Contact\* John Quale

Administrative Contact\* John Quale

Department\* Architecture

Admin Email\* [quale@unm.edu](mailto:quale@unm.edu)

Branch

Admin Phone\* 505-277-1199

Proposed effective term

Semester Fall Year 2016

**Course Information**

Select Appropriate Program\* Graduate Degree Program

Name of New or Existing Program\* Master of Architecture - Track Two

Select Category \* Degree Degree Type

Select Action Revision

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[OLD NEW MArch Track 2 curriculum FINAL.pdf](#)[MArch Track 2 curriculum FINAL.pdf](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

no

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[MArch Track 2 changes.pdf](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[Approve and Sign Off](#)[Send back to Initiator \(John David Quale\)  
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| Master of Architecture (MArch)<br>Track 2 CURRENT                                                                                                                                                                                                  |                                                                                                              |    |  | Master of Architecture (MArch)<br>Track 2 REVISED                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                    |    |                                                                                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|----|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|----|--------------------------------------------------------------------------------------------|
| First Year                                                                                                                                                                                                                                         |                                                                                                              |    |  | First Year                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                    |    | Comments                                                                                   |
| FALL                                                                                                                                                                                                                                               |                                                                                                              |    |  | FALL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                    |    |                                                                                            |
| ARCH 601                                                                                                                                                                                                                                           | Masters Architectural Design I                                                                               | 6  |  | ARCH 601                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Masters Architectural Design I                                                                     | 6  |                                                                                            |
| ARCH 542                                                                                                                                                                                                                                           | Architectural Programming                                                                                    | 3  |  | ARCH 633                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Sustainability II                                                                                  | 3  | moved to new semester; align with technical course numbers                                 |
|                                                                                                                                                                                                                                                    | Architectural History or Theory Elective                                                                     | 3  |  | ARCH 634                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Systems Integration I                                                                              | 3  | moved to new semester; align with technical course numbers                                 |
|                                                                                                                                                                                                                                                    | 3 elective credits* in any graduate level course.                                                            | 3  |  | ARCH 652                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Pre-Design & Architectural Programming                                                             | 3  | moved to new semester; more accurate name; align with professional course numbers          |
|                                                                                                                                                                                                                                                    | 3 elective credits* in any graduate level course.                                                            | 3  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                    |    |                                                                                            |
|                                                                                                                                                                                                                                                    | Total                                                                                                        | 18 |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Total                                                                                              | 15 |                                                                                            |
| SPRING                                                                                                                                                                                                                                             |                                                                                                              |    |  | SPRING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                    |    |                                                                                            |
| ARCH 602 OR ARCH 603                                                                                                                                                                                                                               | Masters Architectural Design II (spring) OR Masters Architectural Design III (summer)                        | 6  |  | ARCH 602                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Masters Architectural Design II (spring or summer)                                                 | 6  | can be taken in spring or summer                                                           |
|                                                                                                                                                                                                                                                    | 3 elective credits* in any graduate level course.                                                            | 3  |  | ARCH 621                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Research Methodology                                                                               | 3  | align with history / theory numbers                                                        |
| ARCH 551                                                                                                                                                                                                                                           | Research Methodology                                                                                         | 3  |  | ARCH 624                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Architectural Theory                                                                               | 3  | new course (see Form B)                                                                    |
| ARCH 631                                                                                                                                                                                                                                           | Systems Integration I                                                                                        | 3  |  | ARCH 635                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Systems Integration II                                                                             | 3  | moved to new semester; align with technical course numbers                                 |
|                                                                                                                                                                                                                                                    | Total                                                                                                        | 15 |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Total                                                                                              | 15 |                                                                                            |
|                                                                                                                                                                                                                                                    | 1st Year Minimum Total                                                                                       | 33 |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1st Year Minimum Total                                                                             | 30 |                                                                                            |
| Second Year                                                                                                                                                                                                                                        |                                                                                                              |    |  | Second Year                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                    |    |                                                                                            |
| STUDIO OPTIONS                                                                                                                                                                                                                                     |                                                                                                              |    |  | FALL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                    |    |                                                                                            |
| ARCH 604 AND ARCH 605                                                                                                                                                                                                                              | Masters Architectural Design IV (fall) AND Masters Architectural Design V (spring)                           | 6  |  | ARCH 603 OR ARCH 596*                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Masters Architectural Design III OR Masters Thesis Prep                                            | 6  |                                                                                            |
| ARCH 604 AND ARCH 596 AND ARCH 597                                                                                                                                                                                                                 | Masters Architectural Design IV (fall) AND Project/Thesis Preparation** (fall) AND Master's Project (spring) | 6  |  | ARCH 651                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Professional Practice                                                                              | 3  |                                                                                            |
| ARCH 596 AND ARCH 599                                                                                                                                                                                                                              | Project/Thesis Preparation** (fall) AND Master's Thesis (spring)                                             | 6  |  | ARCH 596*                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Three credits of Masters Project Prep is required if planning on Masters Project in final semester |    |                                                                                            |
| FALL                                                                                                                                                                                                                                               |                                                                                                              |    |  | LA 556                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Site/Environment                                                                                   | 3  | reintroduced course (was removed from Track 2 a couple of years ago, but still in Track 3) |
|                                                                                                                                                                                                                                                    |                                                                                                              |    |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Architectural History or Theory elective                                                           | 3  |                                                                                            |
| ARCH 651                                                                                                                                                                                                                                           | Professional Practice II                                                                                     | 3  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Total                                                                                              | 15 |                                                                                            |
| ARCH 632                                                                                                                                                                                                                                           | Systems Integration II                                                                                       | 3  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                    |    |                                                                                            |
|                                                                                                                                                                                                                                                    |                                                                                                              |    |  | SPRING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                    |    |                                                                                            |
|                                                                                                                                                                                                                                                    | Studio or Thesis Prep                                                                                        | 6  |  | ARCH 604 OR ARCH 597 OR                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Masters Architectural Design IV OR Masters Project OR                                              | 6  |                                                                                            |
|                                                                                                                                                                                                                                                    | Total                                                                                                        | 12 |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 9 elective credits** in any graduate level                                                         | 9  |                                                                                            |
|                                                                                                                                                                                                                                                    |                                                                                                              |    |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Total                                                                                              | 15 |                                                                                            |
| SPRING                                                                                                                                                                                                                                             |                                                                                                              |    |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                    |    |                                                                                            |
|                                                                                                                                                                                                                                                    | Studio or Masters Project / Thesis                                                                           | 6  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 3rd Year Minimum Total                                                                             | 30 |                                                                                            |
|                                                                                                                                                                                                                                                    | 3 elective credits* in any graduate level course.                                                            | 3  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | GRAND TOTAL                                                                                        | 99 |                                                                                            |
|                                                                                                                                                                                                                                                    |                                                                                                              |    |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                    |    |                                                                                            |
|                                                                                                                                                                                                                                                    | Total                                                                                                        | 9  |  | * After the Masters Review, MArch students will be in one of three degree plans to graduate. Plan I (Masters Thesis) requires six credit hours of ARCH 596 in the Fall, and ARCH 599 in the Spring. Plan II (Masters Project) requires three credit hours of ARCH 596 in the Fall, and ARCH 597 in the Spring. Plan III students take ARCH 603 in the Fall and ARCH 604 in the Spring. Masters Project students can use their three credits in ARCH 596 to count as elective credits. |                                                                                                    |    |                                                                                            |
|                                                                                                                                                                                                                                                    |                                                                                                              |    |  | ** NAAB accreditation requires students to have a minimum total of 45 credit hours in non-architectural coursework in their undergraduate and graduate education combined. If necessary, students should use their electives to get to this number.                                                                                                                                                                                                                                   |                                                                                                    |    |                                                                                            |
|                                                                                                                                                                                                                                                    | 2nd Year Minimum Total                                                                                       | 21 |  | ***3 year MArch students can take this Architectural Visualization class from among any of the 1 or 2 credit ARCH 672 options anytime during their curriculum.                                                                                                                                                                                                                                                                                                                        |                                                                                                    |    |                                                                                            |
|                                                                                                                                                                                                                                                    | GRAND TOTAL                                                                                                  | 54 |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                    |    |                                                                                            |
|                                                                                                                                                                                                                                                    |                                                                                                              |    |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                    |    |                                                                                            |
| * NAAB accreditation requires students to have a minimum total of 45 credit hours in non-architectural coursework in their undergraduate and graduate education combined. If necessary, students should use their electives to get to this number. |                                                                                                              |    |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                    |    |                                                                                            |
| ** This course counts as an elective.                                                                                                                                                                                                              |                                                                                                              |    |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                    |    |                                                                                            |

## **Master of Architecture (MArch)**

### **Track 2 REVISED**

We are proposing minor changes to the Track 2 of the Master of Architecture (MArch). Track 2 for students who have a four year undergraduate degree in architecture, and it take two years to complete.

The changes include the introduction of one new required course, and changes the courses names and / or course numbers of a few more. The course name and course number changes are for clarity – allowing for more accurate names, and course numbers that have an integral logic to them.

#### **Implications on Faculty Load and / or Budget:**

There is no faculty load or budget impact because this is a minor revision of the MArch degree we currently offer.

Current user: ctorres / **Comments (9)** / Form Transaction Log**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C  
Form Number: C1812**

Fields marked with \* are required

Name of Initiator: Abhaya Datye Email: [datye@unm.edu](mailto:datye@unm.edu) Phone Number: 505 277-0477 Date: 11-02-2015**Associated Forms exist?\*** No **Initiator's Title\*** Chair of Chemical & Biological Engineering**Faculty Contact\*** Abhaya Datye**Administrative Contact\*** Annette Torres**Department\*** Chemical & Biological Engineering**Admin Email\*** [anntorr@unm.edu](mailto:anntorr@unm.edu)**Branch** Main**Admin Phone\*** 5052777959**Proposed effective term**Semester **Fall** Year **2016****Course Information****Select Appropriate Program\*** Graduate Degree Program**Name of New or Existing Program\*** MS Chemical Engineering**Select Category \*** Degree Degree Type MastersSelect Action **Revision****Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[Graduate degrees offered by CBE in Chemical Engineering.docx](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

UNM recently approved a Masters degree Plan III. The CBE department would like to offer this as an option for our graduate students. The requirements would be similar to that for the Plan II. The School of Engineering will propose a plan to perform an outcome assessment for students opting for Plan III.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[Justification for a Plan III Masters degree.docx](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[Approve and Sign Off](#)[Send back to Initiator \(Abhaya Datye\)  
Comment on this Form](#)[Committee Review](#)

Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001

The department offers a Master's degree in Chemical Engineering with either a Plan I (thesis), Plan II (non-thesis) or Plan III (non-thesis) option, as well as a PhD in Engineering with a concentration in Chemical Engineering. General requirements for the degrees offered follow.

Information presented here provides a quick overview of the degree programs; consult the [UNM catalog](#) for complete details.

### **Core Courses (MS, PhD)**

Students in the chemical engineering MS program are required to take the core courses listed below. Students admitted to the chemical engineering doctoral program and not already possessing an MS in Chemical Engineering are generally required to complete the chemical engineering core courses.

- CBE 501: Graduate Seminar (required every semester up to 4 semesters for MS students, up to 8 semesters for PhD students) – 1 cr
- CBE 502: Chemical and Biological Engineering Research Methods Seminar (3 cr)
- CBE 521: Advanced Transport Phenomena I – 3 cr
- CBE 525: Methods of Analysis in Chemical and Nuclear Engineering – 3 cr
- CBE 561: Kinetics of Chemical Processes – 3 cr
- CBE 542: Advanced Chemical Engineering Thermodynamics – 3 cr

### **MS, Plan I (Thesis option)**

- 24 hrs of course work, including core courses
- 6 hrs thesis
- Significant milestones:
  - o Thesis defense
  - o Submission of completed thesis

### **MS, Plan II (Non-thesis option)**

NOTE: The non-thesis option is available only with prior approval

- 30 hrs coursework, including core courses, and maximum of 6 hrs of CBE 551/552: Problems
- Completion of Master's project under the direction of a faculty member (typically be done as part of a Problems course)
- Significant milestones:
  - o Master's Examination, consisting of an oral presentation and defense of the student's major project, as well as oral examination of the student's discipline principles

### **MS, Plan III (Coursework Only)**

NOTE: The coursework only option is available only with prior approval

- 30 hrs coursework, including core courses, and maximum of 6 hrs of CBE 551/552: Problems

## PhD

- A minimum of 48 hrs of coursework beyond the bachelor's degree (excluding dissertation hrs)
  - o At least 24 hours of coursework applied to the degree must be completed at UNM
  - o At least 18 hours must be completed after formal admission to the doctoral program (or approval of Change of Degree Form for students continuing from the MS).
  - o 24 hours maximum credit applied to a master's degree, which may include up to 6 hours of thesis credit
- 18 hours dissertation
- Significant milestones:
  - o Qualifying Exam: The qualifying exam in chemical engineering consists of a written and oral exam and is required for all students to proceed in the doctoral program. The Exam should be taken at the first opportunity after completing the required core courses.
  - o Comprehensive Exam
  - o Dissertation defense
  - o Submission of completed dissertation

## More Information

- [UNM catalog](#)
- Chemical and Biological Engineering [Graduate Student Manual](#) (.pdf)



# MS Plan III (Non-Thesis) Degree Requirements

The Plan III (non-thesis) Master's is considered a terminal or professional degree. Students interested in this option must obtain pre-approval from the CBE Graduate Advisor.

The non-thesis Master's requires 30 credit hours of coursework including the departmental core courses and a maximum, including core courses and a maximum of 6 hrs of CBE 551/552: Problems.

Core courses include:

- CBE 501: Graduate Seminar (1 cr. required every semester; up to 4 credits may be applied toward the MS)
- CBE 502: Chemical and Biological Engineering Research Methods Seminar (3 cr)
- CBE 521: Advanced Transport Phenomena I (3 cr)
- CBE 525: Methods of Analysis in Chemical and Biological Engineering (3 cr)
- CBE 561: Kinetics of Chemical Processes (3 cr)
- CBE 542: Advanced Chemical Engineering Thermodynamics (3 cr)

Master's students submit a [Program of Studies](#) listing all courses being applied to the degree no later than the term before the student intends to graduate.

Approaching the conclusion of the degree, students must submit the [Intent to Graduate](#) form prior to the beginning of their final semester. This is intended as a quick overview of degree requirements. Consult the [UNM Catalog](#) and Graduate Handbook for additional details.

### Reasons for adopting a Plan III Master's Degree ---Course Work Only Option

A number of research universities offer course---work only Master's degrees including the University of Texas---Austin, Colorado State University, University of Washington, University of Michigan, and the University of Minnesota to name a few. In general, professional degree programs such as engineering, business, law, and health most often adopt these degree options. The main reason behind offering the option is for those students who do not envision conducting research in their career. The CBE department does not require a final examination beyond successfully completing required coursework, hence this option will be attractive for students who want to get a course work masters and do not need to complete the project which is required for Plan II.

There are no budgetary implications, because the degree plan is substantially similar to the Plan II currently offered. Not additional faculty time will be required to administer this plan and the courses are already offered as part of our current graduate offerings.

**DEGREE/PROGRAM CHANGE  
FORM C  
Form Number: C1779**

Fields marked with \* are required

**Name of Initiator:** Kelsey Molo    **Email:** [molok@unm.edu](mailto:molok@unm.edu)    **Phone Number:**    **Date:** 10-30-2015

|                         |                                  |                        |                                                  |          |
|-------------------------|----------------------------------|------------------------|--------------------------------------------------|----------|
| Associated Forms exist? | <input type="text" value="Yes"/> | Initiator's Title      | Sr Academic Advisor: Advising                    |          |
| Faculty Contact         | Dr. Jozi De Leon                 | Administrative Contact | Kelsey Molo                                      |          |
| Department              | Division of Equity and Inclusion | Admin Email            | <a href="mailto:molok@unm.edu">molok@unm.edu</a> |          |
|                         | Branch                           | Main                   | Admin Phone                                      | 277-0734 |

**Proposed effective term**

Semester  Year

**Course Information**

Select Appropriate Program

Name of New or Existing Program

Select Category  Degree Type

Select Action

Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.  
See current catalog for format within the respective college (upload a doc/pdf file)

[Catalog language.pdf](#)

☐ **Does this change affect other departmental program/branch campuses? If yes, indicate below.**

Reason(s) for Request (enter text below or upload a doc/pdf file)

[FSCC Questions DCCC Responses.pdf](#)  
[Form C US Global Div Inclusion Memo Final Version 10 29 15.pdf](#)

Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.(upload a doc/pdf file)

[U S Global Diversity Inclusion Undergraduate requirement criteria checklist 3 04 16.pdf](#)  
[Course to remove - Final - for FORM C.pdf](#)  
[Diversity Council Curriculum Subcommittee Members.pdf](#)  
[Approved courses - Final 10.29.15 - for FORM C.pdf](#)  
[Previously approved Form C - C1292.pdf](#)  
[Signed MEMORANDUM Form C Global Div Inclusion Memo Final Version 10302015.pdf](#)

☐ **Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**

Upload a two-page Executive Summary authorized by Associate Provost. (upload a doc/pdf file)

Upload memo from Associate Provost authorizing go-ahead to full proposal. (upload a doc/pdf file)

REVISED CATALOG LANGUAGE:

**U.S. and Global Diversity and Inclusion Undergraduate Degree Requirement**

The University of New Mexico values learning outcomes related to diversity and inclusion. The stated aim of the three-credit "U.S. and Global Diversity and Inclusion" undergraduate degree requirement is to promote a broad-scale understanding of the culture, history or current circumstance of diverse categories of people who have experienced historic and/or contemporary inequitable treatment in the U.S. or in a global context. Courses that fulfill the three-credit "U.S. and Global Diversity and Inclusion" undergraduate requirement must have their primary emphasis (at least 50%) on one or more of the following areas: gender, race, class, ethnicity, sexual orientation, disability, religion, language, culture and/or other marginalized category of people and address two of four learning outcomes identified in the syllabi checklist. These courses should include primary learning outcomes pertaining to the experiences of diverse categories of people and potential solutions to the challenges facing diverse communities. Courses can double count with other core or elective courses that have met the aforementioned student learning outcomes. For a list of approved courses fulfilling this requirement, please check with your advisor or visit the website: [diverse.unm.edu](http://diverse.unm.edu).



Date Submitted: \_\_\_\_\_ Submitted by: \_\_\_\_\_  
Criteria Checklist for "U.S. & Global Diversity & Inclusion" Undergraduate Requirement

Please fill out this form and email to: [usglobaldiversity@unm.edu](mailto:usglobaldiversity@unm.edu) and attach course syllabus. The courses submitted to meet the requirement should meet two (2) of the four (4) learning outcomes, should include the ADA Statement on the syllabus and provide content to address the learning outcomes in at least half of the class.

For more information on this requirement please refer to [diverse.unm.edu](http://diverse.unm.edu)

#### RATIONALE & OBJECTIVES

The stated aim of the "U.S. & Global Diversity & Inclusion" undergraduate degree requirement is to promote a broad-scale understanding of the culture, history or current circumstance of diverse groups of people who have experienced historic and/or contemporary inequitable treatment in the U.S. or in a global context.

The Division for Equity and Inclusion posits that **inclusive excellence** requires a healthy and inclusive campus climate and refers to the processes by which the University leverages diversity as its' strength to enhance an understanding and connection with diverse communities, ensure the success of all UNM students, and advance the academic enterprise. For more information: [diverse.unm.edu](http://diverse.unm.edu).

Courses that address at least two of the following four diversity outcomes will be listed as meeting the U.S. Global, Diversity and Equity requirements. The Diversity Council Curriculum Subcommittee is collecting the syllabi for potentially diversity inclusive courses that were identified and approved by the Faculty Senate. Please complete the checklist to identify which of the four diversity outcomes are being addressed in your course. Please include the student learning outcome from your syllabus that meets the diversity and inclusion learning outcome. It should take approximately three minutes to complete the checklist. Courses that addresses two or more of the diversity outcomes will be included on the final list of approved courses.

| Course Prefix                                                                                                                                                                                                                                                                                                                    | Number | Title | Instructor Name & Title | Email |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------|-------------------------|-------|
| <b>My course includes primary emphasis (half or more of the course content) on one or more combinations of the following areas (mark an X for all that apply):</b><br>__ gender; __ race; __ class; __ ethnicity; __ sexual orientation; __ disability; __ religion; and/or __ other marginalized group(s)- specify group: _____ |        |       |                         |       |

(Note: If class is cross-listed or offered with another course, ALSO list course prefix, number, and title.)

| YES | NO | LEARNING OUTCOMES<br>(engages two or more of the key learning outcomes for half or more of the course content)                                                                                                                                                                        | Paste relevant student learning outcome from syllabus (please reference specific activities or assignments from your syllabus). |
|-----|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
|     |    | Demonstrate an ability to view issues from multiple perspectives as well as analyze, evaluate, and interpret one's own history and position in contemporary U.S. society as well as in a global context.                                                                              |                                                                                                                                 |
|     |    | Understand the dynamics of historic and contemporary inequality, oppression, and resistance for marginalized groups in local and global societies and how those dynamics shape individual and community power and experiences (e.g., sexism, institutional racism, homophobia, etc.). |                                                                                                                                 |
|     |    | Demonstrate critical literacy and ethics pertaining to the dynamics of diversity and inclusion by race, gender, class, sexual orientation, ethnicity, religion and disability in the U.S. and/or global context.                                                                      |                                                                                                                                 |
|     |    | Communicate an understanding of the ways in which inequitable treatment of groups by race, ethnicity, disability, religion, sexual orientation, and/or gender inequality is socially constructed and politically implemented and maintained.                                          |                                                                                                                                 |

**AMERICANS WITH DISABILITIES ACT STATEMENT INCLUDED - MARK ONE: (   ) YES (   ) NO**

All submitted syllabi **must** include a disability statement. Below is an example shared with the Diversity Council Curriculum Subcommittee Joan Green, Director of Accessibility Services, UNM.

*In accordance with UNM Policy 2130 and the Americans with Disabilities Act (ADA), academic adjustments may be made for students with disabilities. Accessibility Resource Center, 2021 Mesa Vista Hall, 277-3506 (voice/TT), coordinates accommodations and services. If you have a disability for which you may request academic adjustments and have not registered with their office, please do so as soon as possible. Also meet with me privately to discuss your specific accommodations and how they relate to course expectations and assignments.*

**SYLLABI LEARNING OUTCOMES INCLUDED IN SYLLABUS INCLUDED – MARK ONE: (   ) YES (   ) NO**

All submitted syllabi must include clear and identifiable student learning outcomes/goals/objectives.

\*\*\*\*\*



## MEMORANDUM

October 30, 2015

To: Faculty Senate Undergraduate Committee and Curriculum Committee

From: Dr. Jozi De Leon, Vice President, Equity and Inclusion ([jdeleon@unm.edu](mailto:jdeleon@unm.edu))  
Dr. Nancy López, Chair, Diversity Council Curriculum Committee ([nlopez@unm.edu](mailto:nlopez@unm.edu))

Re: Form C Updates for “U.S. & Global Diversity & Inclusion” 3-credit requirement undergraduate requirement

Thank you for inviting us to your meeting on to discuss the Form C proposed updates to University of New Mexico “U.S. & Global Diversity & Inclusion” 3-credit Undergraduate Requirement implemented in Fall 2015. Over the past year, the Diversity Council Curriculum Committee has assumed the very serious task of providing a first review of the courses submitted to meet the 3-credit “U.S. & Global Diversity & Inclusion” Undergraduate Requirement. We have also included the revised catalog language for the catalog. In order to strengthen the peer review process, the committee has been expanded, has established regular monthly meetings that are posted on the website for the Division of Equity and Inclusion ([diverse.unm.edu](http://diverse.unm.edu)). All appointments of reviewers are based on voting faculty that have a record of primary scholarship, research, teaching, service and praxis in diversity, equity and inclusion. For a complete list of current members of the Diversity Council Curriculum Committee and meetings please visit: [diverse.unm.edu](http://diverse.unm.edu). Syllabi and checklists are available via SharePoint link via Kelsey Molo. Minutes of meetings are also available upon request.

An updated list of courses recommended for inclusion in the list of approved courses is attached. We have also included a list of courses recommended for removal from the list of approved courses. We also include the revised catalog language for the requirement. These changes are required for the following reasons:

1. **QUALITY ASSURANCE & ASSESSMENT.** In order to strengthen the process for continuous quality assurance and assessment for the purposes of accreditation and deeper lifelong learning embedded in the U.S. & Global Diversity Requirement, the Diversity Council Curriculum Committee is proposing clarification regarding the approved learning outcomes.
  - a. U.S. & Global Diversity & Inclusion 3-credit Undergraduate Requirement Courses will dedicate content to two of the four learning outcomes (See attached syllabi checklist).
  - b. At least fifty percent (50%) of the content of the course will need to be focused on the established learning outcomes as it is important to distinguish between courses



that touch on topics from those that cover student learning outcomes content that is in-depth through substantive courses readings, learning activities and other assignments as their primary focus.

- c. Courses will be evaluated using the university course assessment process for the common core.

2. RECTIFYING THE UNINTENDED CONSEQUENCE OF APPROVING ALL FOREIGN LANGUAGES (AREA 6 OF THE UNM CORE CURRICULUM) IS THAT IT NULLIFIES THE REQUIREMENT. There was confusion about whether all foreign languages automatically counted as meeting the “U.S. & Global Diversity & Inclusion” requirement. It is important that foreign language courses meet the same standards as all other courses and incorporates the same criteria (e.g., 50% of the content on two of the four learning outcomes). The unintended consequence of approving all foreign language courses is that it nullifies the diversity requirement since there already is a foreign language requirement for all undergraduate students. We understand the concern that at the time the requirement was approved there were not enough courses in the core curriculum; however since the requirement was approved there have been a number of courses that have been added to the core and that are also recommended for inclusion in the list of approved courses.
3. REMOVAL OF TOPICS COURSES AND MULTIPLE SECTION COURSES. The approved course list will remove Topics Courses and multiple section courses, as there is no assurance as to when the courses will be offered or if the substance of the primary focus of the course will be consistent from semester to semester. Any courses included will be approved courses listed in the catalog with dedicated titles and a potential for more consistently scheduled offerings.
4. REMOVAL OF ERRONEOUSLY LISTED COURSES. Courses will be removed that erroneously appeared on the approved list for advisors that were never part of the approved list reviewed by the Diversity Council Curriculum Committee and submitted for review and approval to Faculty Senate. We are extremely grateful that as of Fall 2014 we now have a staff member from the Office of University Advisement (Kelsey Molo) provided by Vanessa Harris, Director of Student Advisement. Now that we have Kelsey Molo as dedicated staff support for managing the administration of this requirement, it is our hope we can improve communication with faculty, students and minimize errors in terms of the updated list of courses.
5. UPDATED LIST OF COURSES RECOMMENDED FOR INCLUSION ON LIST OF APPROVED COURSES& ADA STATEMENT. The approved course list includes those courses that submitted syllabi and met criteria of addressing two of the four learning outcomes with a focus on those learning outcomes in 50% of the class. We also updated the checklist to specifically require that each course syllabi include an ADA statement with information on the relevant office of Accessibility Resources for students.
6. RETAINING PREVIOUSLY APPROVED COURSES THAT WERE MISSING ADA STATEMENT, CHECKLIST OR SYLLABI TO ENSURE SUFFICIENT COURSE



CAPACITY. Recognizing that we need sufficient opportunities for students to take the requirement, we have retained some of the courses that were missing either the checklist, ADA statement or syllabus for a one-year period--academic year 2016-2017. During this Spring semester we will launch the U.S. & Global Diversity Inclusive Excellence Academy and we invite all instructors to two lunches sponsored by the Division of Equity & Inclusion. The purpose of these gatherings is to reach out to all faculty that have not submitted checklists, were missing an ADA statement or did not submit a syllabi to a dialogue about the "U.S. & Global Diversity & Inclusion" student learning outcomes. We hope that we will receive all the missing information by early Fall 2017 so we can update the UNM catalog for 2017-2018.

7. TRANSFER STUDENTS. Although the changes proposed in this requirement are only applicable to students for the year these proposed changes are included in the catalog (e.g., the earliest cohort affected by these changes would be students entering Fall 2016), if some of these students would like to request transfer credits, they will follow the same process for requesting credit for courses that is used for any other requirement. Specifically, a student requesting transfer credit would need to identify which course in the list of approved courses is equivalent to the course they took. They could meet with an advisor and follow the process for evaluating course equivalencies for transfer credit.
8. PROVISION FOR STUDENTS THAT HAVE TAKEN COURSES THAT WERE PREVIOUSLY APPROVED. It is important to underscore that the changes would only apply for students entering in Fall of 2016. A date stamp from the registrar's office will be used to protect students that have already taken courses. The date stamp would be effective from Fall 2014 – Spring 2016.
9. MEMO TO ADVISORS AND AUDIT SHOULD MAKE THE APPROVED LIST OF COURSES AVAILABLE TO STUDENTS EVEN AFTER THEY MEET THE REQUIREMENT. We request that all advisors are updated on these changes. Also, we request that all approved courses remain visible to student when they visit their degree audits until they graduate. (Note: a current list of approved courses will also be posted on the [diverse.unm.edu](http://diverse.unm.edu) and [unmcore.unm.edu](http://unmcore.unm.edu) websites). Currently degree audits erase the list of courses that have been identified as meeting the "U.S. & Global Diversity & Inclusion" requirement. We recommend that the student audit system continue to list the entire list of courses approved for meeting the requirement as it may serve as a resource for students looking for courses that address these topics as they progress throughout their academic careers. This may have a deep impact in long-term student success as Dr. George Kuh and many other scholars have substantial research findings pointing to the importance of diversity learning outcomes for deep learning and critical thinking for student success.

Thank you for your dedication to student success. Below is the proposed catalog language.

## REVISED CATALOG LANGUAGE

The University of New Mexico values learning outcomes related to diversity and inclusion. The stated aim of the three-credit "U.S. and Global Diversity and Inclusion" undergraduate degree requirement is to promote a broad-scale understanding of the culture, history or current circumstance of diverse categories of people who have experienced historic and/or contemporary inequitable treatment in the U.S. or in a global context. Courses that fulfill the three-credit "U.S. and Global Diversity and Inclusion" undergraduate requirement must have their primary emphasis (at least 50%) on one or more of the following areas: gender, race, class, ethnicity, sexual orientation, disability, religion, language, culture and/or other marginalized category of people and address two of four learning outcomes identified in the syllabi checklist. These courses should include primary learning outcomes pertaining to the experiences of diverse categories of people and potential solutions to the challenges facing diverse communities. Courses can double count with other core or elective courses that have met the aforementioned student learning outcomes. For a list of approved courses fulfilling this requirement, please check with your advisor or visit the website: [diverse.unm.edu](http://diverse.unm.edu).

## ATTACHMENTS

1. List of voting members of the faculty senate serving the and dates and times of meetings. Minutes available upon request.
2. Revised checklist; Previously Approved Checklist (Please not there have been no changes to the actual learning outcomes)
3. Updated list of courses recommended for meeting the "U.S. & Global Diversity & Inclusion" 3-credit requirement (Note: Courses that can double count in the UNM Core are designated by #).
4. List of courses recommended for removal from the list of approved courses.

**DEGREE/PROGRAM CHANGE  
FORM C  
Form Number: C1292**

Fields marked with \* are required

**Name of Initiator:** Nancy Lopez    **Email:** [nlopez@unm.edu](mailto:nlopez@unm.edu)    **Phone Number:** 505 277-3101    **Date:** 10-07-2013

|                         |                                 |                        |                                           |
|-------------------------|---------------------------------|------------------------|-------------------------------------------|
| Associated Forms exist? | <input type="text" value="No"/> | Initiator's Title      | Associate Professor: Sociology Department |
| Faculty Contact         | Nancy Lopez                     | Administrative Contact | Nancy Lopez                               |
| Department              | Sociology                       | Admin Email            | nlopez@unm.edu                            |
| Branch                  | Main                            | Admin Phone            | (505) 453-0503                            |

**Proposed effective term**

|          |                                   |      |                                   |
|----------|-----------------------------------|------|-----------------------------------|
| Semester | <input type="text" value="Fall"/> | Year | <input type="text" value="2015"/> |
|----------|-----------------------------------|------|-----------------------------------|

**Course Information**

|                                 |                                                               |
|---------------------------------|---------------------------------------------------------------|
| Select Appropriate Program      | <input type="text" value="Undergraduate Degree Program"/>     |
| Name of New or Existing Program | U.S. and Global Diversity and Inclusion UG Degree Requirement |
| Select Category                 | <input type="text" value="Degree"/>                           |
| Degree Type                     | Baccalaureate                                                 |
| Select Action                   | <input type="text" value="New"/>                              |

Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.  
See current catalog for format within the respective college (upload a doc/pdf file)

[peer institution data on Diversity Requirements.docx](#)  
[Report on Diversity Requirements at Model Institutions\(Curriculum Research Team 2.pdf](#)

☐ **Does this change affect other departmental program/branch campuses? If yes, indicate below.**

Reason(s) for Request (enter text below or upload a doc/pdf file)

[3 credit Undergraduate diversity Requirement Catalog Narative 1 6 14.docx.dot](#)

Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.(upload a doc/pdf file)

[peer institution data on Diversity Requirements.docx](#)  
[Diversity Council 3 cr Diversity Undergrad Requirement FSCC Presentation 2 7 14.pdf](#)  
[Report on Diversity Requirements at Model Institutions\(Curriculum Research Team.pdf](#)  
[Letter of Support from Dean Brown and Dean Interim Dean Bergman.pdf](#)  
[President Frank Letter of Support Diveresity Requirement.pdf](#)  
[Provost Diversity Requirement Letter of Support.pdf](#)  
[ASUNM Resolution in support of Diversity Requirement 11 16 12.pdf](#)  
[UNM 3cr undergrad US & Global Diversity & Inclusion Proposal .pdf](#)  
[map of peer institutions.docx](#)  
[UNM Faculty Senate Resolution Apr 23 13PDF.pdf](#)  
[GPSA Resolution in Support of Diversity Requirement Fall 2012.pdf](#)  
[Diversity Council Framework for Strategic Action 1 28 13.pdf](#)  
[Copy of Diversity Request Number Students 10102013.xls](#)  
[us-global-diversity-inclusion-criteria-checklist-jan-06-14.docx](#)  
[Diversity Requirement Courses Jan 21 2014.xls](#)  
[Diversity Requirement Executive Summary \(1\).docx](#)  
[Freshmen STEM Major Fall 2013 \(1\).xls](#)



**Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**

Upload a two-page Executive Summary authorized by Associate Provost. (upload a doc/pdf file)

Upload memo from Associate Provost authorizing go-ahead to full proposal. (upload a doc/pdf file)

Summary of Faculty Senate Curriculum Committee (FSCC) Recommendations  
Form C 1779 Equity and Inclusion

Chair FSCC – Carolyn Montoya PhD, CPNP  
Associate Professor & Interim Associate Dean  
College of Nursing

**Background**

The UNM requires a 3-credit undergraduate course in U.S. & Global Diversity & Inclusion. Originally any 3-credit foreign language course met this requirement. Since at least 2013 there has been a discussion that the undergraduate requirement must have their primary emphasis (at least 50% content) address one or more combination of the following areas: gender, race, class, ethnicity, sexual orientation, disability, religion and/or other marginalized group(s) and at least two or more key learning outcomes included in Form C 1779.

This change has been presented to the FSCC at least twice in the past 3 years and has not been approved. While the FSCC supports the requirement for a diversity course for all undergraduate students the committee would like the concerns listed below addressed.

1. Please explain the committee process for deciding if a course meets the learning outcomes included in Form C1779. For example, does the entire committee review courses or are courses assigned to committee members and then discussed at a general committee meeting?

Response: The entire committee will be responsible for this review. A subcommittee of two or more members will be assigned the review and their assessment will be brought forward to the Entire Committee for discussion and a vote. This process will be used at this time, however, at some point we may be able to include the assessment of the learning outcomes as part of the UNM's learning outcomes assessment strategy.

2. If a course is rejected as a diversity course is the faculty member notified and provided with a rationale as to why their course was rejected? Is there an appeal process for a course that is rejected?

Response: If a course is rejected, the faculty member will be notified and provided with the rationale for the rejection. The faculty member can address the reasons for the rejection and include a revised syllabus and a course approval form for consideration. The committee intends to work with faculty to ensure that their courses are successful in meeting the requirement.

3. How often does the committee meet to review courses?

Response: The committee will meet monthly to ensure that all new courses are considered. After the majority of courses have been reviewed, the committee will meet quarterly.

4. Once courses are approved when do they become designated as "diversity" courses? What happens to a student who completed a course which was accepted as a diversity course and then has been removed from the list before the student graduates? Will the course still meet their graduation requirement?

Response: We do not anticipate that once a course has been approved, that it will be disapproved unless the course changes in its focus, content or learning outcomes.

However, if a student takes a course that was designated as meeting the diversity requirement, the student will not be penalized if the course is subsequently removed from the approved list. In addition, the committee would work with the faculty member to address why the course was disapproved in order to give the faculty member an opportunity to meeting approval criteria. We do not want to lose courses that are approved and want to maintain a robust list of approved courses.

5. The FSCC would like to know more about the how the process to approve the courses. A link was provided to Share Point but committee members were unable to access the link.

Response: The Committee members are all faculty who have taught diversity courses in their colleges. A list can be provided to the FSCC. Vanessa Harris, Director of Advising is an ex-officio member of the committee to ensure that all the approved courses are included in the advising list and reflected/communicated appropriately to advisors and students. The VP for Equity and Inclusion, while a faculty member who has taught diversity courses in the past, is also ex-officio and attends meetings to ensure the integrity of the process.

6. How is the 50% content determined given that a percentage is a quantitative criteria? What do they do if a course is “marginal”?

Response: The 50% content is determined by the amount of time (classes) that topics on the learning outcomes are included and reflected on the syllabus. We recognize that the 50% is not an exact science but the review of the syllabus should reflect that at least half of the classes address topics consistent with the learning outcomes. We hope that faculty will write their class descriptions to reflect content more clearly. This has been a problem for some faculty, but committee members have worked one-on-one with faculty to reflect class content more accurately and meet the requirement. We will also have some sessions with faculty interested in submitting a course for consideration so that we ensure faculty are successful when they submit. We will also post sample syllabi and course forms online so that faculty can see what they should include.



## MEMORANDUM

October 30, 2015

To: Faculty Senate Undergraduate Committee and Curriculum Committee

From: Dr. Jozi De Leon, Vice President, Equity and Inclusion ([jdeleon@unm.edu](mailto:jdeleon@unm.edu))  
Dr. Nancy López, Chair, Diversity Council Curriculum Committee  
([nlopez@unm.edu](mailto:nlopez@unm.edu))

Re: Form C Updates for "U.S. & Global Diversity & Inclusion" 3-credit requirement undergraduate requirement

Thank you for inviting us to your meeting on to discuss the Form C proposed updates to University of New Mexico "U.S. & Global Diversity & Inclusion" 3-credit Undergraduate Requirement implemented in Fall 2015. Over the past year, the Diversity Council Curriculum Committee has assumed the very serious task of providing a first review of the courses submitted to meet the 3-credit "U.S. & Global Diversity & Inclusion" Undergraduate Requirement. We have also included the revised catalog language for the catalog. In order to strengthen the peer review process, the committee has been expanded, has established regular monthly meetings that are posted on the website for the Division of Equity and Inclusion ([diverse.unm.edu](http://diverse.unm.edu)). All appointments of reviewers are based on voting faculty that have a record of primary scholarship, research, teaching, service and praxis in diversity, equity and inclusion. For a complete list of current members of the Diversity Council Curriculum Committee and meetings please visit: [diverse.unm.edu](http://diverse.unm.edu). Syllabi and checklists are available via SharePoint link via Kelsey Molo. Minutes of meetings are also available upon request.

An updated list of courses recommended for inclusion in the list of approved courses is attached. We have also included a list of courses recommended for removal from the list of approved courses. We also include the revised catalog language for the requirement. These changes are required for the following reasons:

1. **QUALITY ASSURANCE & ASSESSMENT.** In order to strengthen the process for continuous quality assurance and assessment for the purposes of accreditation and deeper lifelong learning embedded in the U.S. & Global Diversity Requirement, the Diversity Council Curriculum Committee is proposing clarification regarding the approved learning outcomes.
  - a. U.S. & Global Diversity & Inclusion 3-credit Undergraduate Requirement Courses will dedicate content to two of the four learning outcomes (See attached syllabi checklist).
  - b. At least fifty percent (50%) of the content of the course will need to be

focused on the established learning outcomes as it is important to distinguish between courses that touch on topics from those that cover student learning outcomes content that is in-depth through substantive courses readings, learning activities and other assignments as their primary focus.

- c. Courses will be evaluated using the university course assessment process for the common core.
2. RECTIFYING THE UNINTENDED CONSEQUENCE OF APPROVING ALL FOREIGN LANGUAGES (AREA 6 OF THE UNM CORE CURRICULUM) IS THAT IT NULLIFIES THE REQUIREMENT. There was confusion about whether all foreign languages automatically counted as meeting the “U.S. & Global Diversity & Inclusion” requirement. It is important that foreign language courses meet the same standards as all other courses and incorporates the same criteria (e.g., 50% of the content on two of the four learning outcomes). The unintended consequence of approving all foreign language courses is that it nullifies the diversity requirement since there already is a foreign language requirement for all undergraduate students. We understand the concern that at the time the requirement was approved there were not enough courses in the core curriculum; however since the requirement was approved there have been a number of courses that have been added to the core and that are also recommended for inclusion in the list of approved courses.
3. REMOVAL OF TOPICS COURSES AND MULTIPLE SECTION COURSES. The approved course list will remove Topics Courses and multiple section courses, as there is no assurance as to when the courses will be offered or if the substance of the primary focus of the course will be consistent from semester to semester. Any courses included will be approved courses listed in the catalog with dedicated titles and a potential for more consistently scheduled offerings.
4. REMOVAL OF ERRONEOUSLY LISTED COURSES. Courses will be removed that erroneously appeared on the approved list for advisors that were never part of the approved list reviewed by the Diversity Council Curriculum Committee and submitted for review and approval to Faculty Senate. We are extremely grateful that as of Fall 2014 we now have a staff member from the Office of University Advisement (Kelsey Molo) provided by Vanessa Harris, Director of University Advisement. Now that we have Kelsey Molo as dedicated staff support for managing the administration of this requirement, it is our hope we can improve communication with faculty, students and we minimize errors in terms of the updated list of courses.
5. UPDATED LIST OF COURSES RECOMMENDED FOR INCLUSION ON LIST OF APPROVED COURSES& ADA STATEMENT. The approved course list includes those courses that submitted syllabi and meet criteria of addressing two of the four learning outcomes with a focus on those learning outcomes in 50% of the class. We also updated the checklist to specifically require that each course syllabi include an ADA statement with information on the relevant office





of Accessibility Resources for students.

6. **RETAINING PREVIOUSLY APPROVED THAT WERE MISSING ADA STATEMENT, CHECKLIST OR SYLLABI TO ENSURE SUFFICIENT COURSE CAPACITY.** Recognizing that we need sufficient seats for students, we have retained some of the courses that were missing either the checklist, ADA statement or syllabus for a one-year period--academic year 2016-2017. During this Spring semester we will launch the U.S. & Global Diversity Inclusive Excellence Academy and we will invite all instructors to two lunched sponsored by the Division of Equity & Inclusion. The purpose of these gathering is to reach to all faculty that have not submitted checklists, were missing an ADA statement or did not submit a syllabi to a dialogue about the "U.S. & Global Diversity & Inclusion" student learning outcomes. We hope that we will receive all the missing information by early Fall 2017 so we can update the UNM catalog for 2017-2018.
7. **TRANSFER STUDENTS.** Although the changes proposed in this requirement are only applicable to students for the year these proposed changes are included in the catalog year (e.g., the earliest cohort affected by these changes would be students entering Fall 2016), if some of these student would like to request transfer credits, they will follow the same process for requesting credit for courses that is used for any other requirement. Specifically, a student requesting transfer credit would need to identify which course currently listed in the list of approved courses it is requesting credit for and advisors would used each colleges respective process for evaluating equivalencies.
8. **PROVISION FOR STUDENTS THAT HAVE TAKEN COURSES THAT WERE PREVIOUSLY APPROVED.** It is important to underscore that the changes would only apply for students entering in Fall of 2016. A date stamp from the registrar's office will be used to protect students that have already taken courses. The date stamp would be effective from Fall 2014 – Spring 2016.
9. **MEMO TO ADVISORS AND AUDIT SHOULD MAKE THE APPROVED LIST OF COURSES AVAILABLE TO STUDENTS EVEN AFTER THEY MEET THE REQUIREMENT.** We request that all advisors are updated on these changes college by college. Also, we request that all approved courses remain visible to student when they visit their degree audits until they graduate. (Note: a current list of approved courses will also be posted on the [diverse.unm.edu](http://diverse.unm.edu) and [unmcore.unm.edu](http://unmcore.unm.edu) websites). Currently degree audits erase the list of courses that have been identified as meeting the "U.S. & Global Diversity & Inclusion" requirement. We recommend that the student audit system continue to list the entire list of courses approved for meeting the requirement as it may serve as a resource for students looking for courses that address these topics as they progress throughout their academic careers. This may have a deep impact in long-term student success as Dr. George Kuh and many other scholars have substantial

research findings pointing to the importance of diversity learning outcomes for deep learning and critical thinking for student success.

Thank you for your dedication to student success. Below is the proposed catalog language.

#### REVISED CATALOG LANGUAGE

The University of New Mexico values learning outcomes related to diversity and inclusion. The stated aim of the three-credit "U.S. and Global Diversity and Inclusion" undergraduate degree requirement is to promote a broad-scale understanding of the culture, history or current circumstance of diverse categories of people who have experienced historic and/or contemporary inequitable treatment in the U.S. or in a global context. Courses that fulfill the three-credit "U.S. and Global Diversity and Inclusion" undergraduate requirement must have their primary emphasis (at least 50%) on one or more of the following areas: gender, race, class, ethnicity, sexual orientation, disability, religion, language, culture and/or other marginalized category of people and address two of four learning outcomes identified in the syllabi checklist. These courses should include primary learning outcomes pertaining to the experiences of diverse categories of people and potential solutions to the challenges facing diverse communities. Courses can double count with other core or elective courses that have met the aforementioned student learning outcomes. For a list of approved courses fulfilling this requirement, please check with your advisor or visit the website: [diverse.unm.edu](http://diverse.unm.edu).

#### ATTACHMENTS

1. List of voting members of the faculty senate serving the and dates and times of meetings. Minutes available upon request.
2. Revised checklist; Previously Approved Checklist (Please note there have been no changes to the actual learning outcomes)
3. Updated list of courses recommended for meeting the "U.S. & Global Diversity & Inclusion" 3-credit requirement (Note: Courses that can double count in the UNM Core are designated by #).
4. List of courses recommended for removal from the list of approved courses.

## **Diversity Council Curriculum Subcommittee Members**

### **Chair of DC Curriculum Subcommittee:**

Nancy Lopez: Associate Professor, Sociology

### **Voting Members:**

Robin Minthorn: Assistant Professor, LLSS

Glenabah Martinez: Associate Professor, LLSS

Jan Armstrong: Associate Professor, LLSS

Jamal Martin: Director, Peace and Justice Studies; Assistant Professor, Department of Family & Community Medicine; Lecturer III, Africana Studies

Karla Kingsley: Associate Professor, Teacher Education

Pisarn Bee Chamcharatsri: Assistant Professor, LLSS

Sonia Rankin: Associate Dean & Lecturer, Africana Studies; Associate Dean, University College

Ana Alonso-Minutti: Assistant Professor of Music, College of Fine Arts

### **Non-Voting:**

Vanessa Harris: Director, Office of University Advisement

Kelsey Molo: Administrative Coordinator, Office of University Advisement

### **Provost Diversity Council Co-chairs:**

Nancy Lopez: Associate Professor, Sociology

Kiran Katira: Program Operations Director, Community Engagement Center

### **VP for Equity and Inclusion:**

Jozi De Leon: VP for Equity and Inclusion

The Diversity Council Curriculum Committee Subcommittee reviews syllabi for inclusion in the list of course meeting the 3-credit undergraduate, "U.S. and Global Diversity & Inclusion" requirement. The regular meetings of the Diversity Council Curriculum Subcommittee take place on 12 – 2 PM on the last Monday of every month during the regular academic year.

The Committee meets in UCAM or UAC Conference Room (UAEC 175 or UAEC 105). These are always open meetings. Anyone is welcome to attend.

| Courses to be removed from Original list |               |               |                                                                                            |                                                                  |
|------------------------------------------|---------------|---------------|--------------------------------------------------------------------------------------------|------------------------------------------------------------------|
|                                          | Course Prefix | Course Number | Course Title                                                                               | Reason for removal                                               |
| 1                                        | AFST          | 150           | Foundations of Africana Studies                                                            | NOT IN CATALOG<br>Did not submit a syllabus or checklist         |
| 2                                        | AFST          | 250           | Black women                                                                                | NOT IN CATALOG<br>Did not submit a syllabus or checklist         |
| 3                                        | AFST          | 332           | African Literature and Post Colonial Development                                           | NOT IN CATALOG<br>Did not submit a syllabus or checklist         |
| 4                                        | AFST          | 380           | Comp Lit                                                                                   | Special topics                                                   |
| 5                                        | AFST          | 380           | Children in Conflict                                                                       | Special topics                                                   |
| 6                                        | AFST          | 380           | Great Books                                                                                | Special topics                                                   |
| 7                                        | AFST          | 380           | Postcolonial Development                                                                   | Special topics                                                   |
| 8                                        | AFST          | 380           | African Women Writers                                                                      | Special topics                                                   |
| 9                                        | AFST          | 392           | Black Liberation and Religion                                                              | NOT IN CATALOG<br>Did not submit a syllabus or checklist         |
| 10                                       | AFST          | 397           | Rebels                                                                                     | Special topics                                                   |
| 11                                       | AFST          | 397           | African Great Books                                                                        | Special topics                                                   |
| 12                                       | AFST          | 580           | Great Books                                                                                | NOT IN CATALOG<br>Did not submit a syllabus or checklist         |
| 13                                       | AMST          | 315           | Race, Class and Gender in the Culture Industry                                             | NOT IN CATALOG<br>Did not submit a syllabus or checklist         |
| 14                                       | AMST          | 352           | Native American Cultural Production                                                        | NOT IN CATALOG<br>Did not submit a syllabus or checklist         |
| 15                                       | AMST          | 332           | Politics of Sex                                                                            | Not in catalog                                                   |
| 16                                       | AMST          | 354           | Social Class and Inequality                                                                | NOT IN CATALOG<br>Did not submit a syllabus or checklist         |
| 17                                       | AMST          | 426           | Native American Representation and Resistance                                              | NOT IN CATALOG<br>Did not submit a syllabus or checklist         |
| 18                                       | AMST          | 550           | Decolonizing Culture and Race Identity                                                     | Special topics                                                   |
| 19                                       | AFST          | 491           | African American Religious Traditions                                                      | NOT IN CATALOG<br>Did not submit a syllabus or checklist         |
| 20                                       | ANTH          | 130           | <del>Anthropology of Hunger</del>                                                          | (remove from list per instructor - course was a one-time course) |
| 21                                       | ANTH          | 340           | Culture & P                                                                                | Special topics                                                   |
| 22                                       | ANTH          | 340           | Indigenous People of North America                                                         | Special topics                                                   |
| 23                                       | ANTH          | 365           | Anthropology of Health                                                                     | NOT IN CATALOG<br>Did not submit a syllabus or checklist         |
| 24                                       | ARAB          | 101           | Elementary Arabic I                                                                        | Did not submit a checklist                                       |
| 25                                       | ARSC          | 198           | International Studies and Careers                                                          | Irregular offerings                                              |
| 26                                       | ARSC          | 198           | Fairytales                                                                                 | Irregular offerings                                              |
| 27                                       | ARTE          | 593           | Sexual Identity and Social Justice in Art Education                                        | Special topics                                                   |
| 28                                       | ARTH          | 429           | Visual Agendas: Pro- and Anti- Abolitionist images in American and British Art and Culture | Special topics                                                   |
| 29                                       | ARTH          | 429           | The Victorian Nude                                                                         | Special topics                                                   |
| 30                                       | ARTH          | 449           | Art of Spain                                                                               | Special topics                                                   |
| 31                                       | ARTH          | 449           | African American Art                                                                       | Special topics                                                   |
| 32                                       | ARTH          | 482           | India During British Rule                                                                  | syllabus only - 482 not in catalog                               |
| 33                                       | ARTH          | 582           | Race, Gender, and History                                                                  | Seminar course                                                   |
| 34                                       | CHIN          | 101           | Chinese                                                                                    | never submitted a syllabus                                       |
| 35                                       | CHIN          | 201           | Chinese                                                                                    | never submitted a syllabus                                       |
| 36                                       | CHIN          | 300           | Women in China                                                                             | 300 not in catalog                                               |
| 37                                       | CHIN          | 320           | Study Abroad: Issues of Contemporary China                                                 | topics-like                                                      |
| 38                                       | CHIN          | 370           | Topics in 20th Century Chinese Film                                                        | topics-like                                                      |
| 39                                       | CJ            | 115           | Communication Across Cultures                                                              | multiple section course - attached to FLC                        |
| 40                                       | COMP          | 222           | Fairy and Folk Tales                                                                       | Did not submit a syllabus or checklist                           |
| 41                                       | COMP          | 331           | Modern China in Literature and Film                                                        | Special topics                                                   |
| 42                                       | COMP          | 331           | Intro to China: Literature, History, and Thought                                           | Special topics                                                   |
| 43                                       | COMP          | 432           | Inventing America                                                                          | Special topics                                                   |
| 44                                       | CRP           | 422           | Indigenous Planning                                                                        | Not in catalog                                                   |
| 45                                       | DANC          | 105           | Dance Appreciation                                                                         | Did not submit a checklist                                       |
| 46                                       | DANC          | 116           | Mexican Folk Dance                                                                         | Did not submit a syllabus or checklist                           |
| 47                                       | DANC          | 127           | African Dance I                                                                            | Did not submit a syllabus or checklist                           |
| 48                                       | DANC          | 169           | Flamenco                                                                                   | Did not submit a syllabus or checklist                           |
| 49                                       | ENGL          | 292           | World Literature Ancient to 1600                                                           | Not approved by committee                                        |
| 50                                       | ENGL          | 293           | World Literature : 17th Century to Present                                                 | Not approved by committee                                        |
| 51                                       | ENGL          | 340           | Professional Writing in Globalized World                                                   | Did not submit a syllabus or checklist                           |
| 52                                       | ENGL          | 360           | Jane Austen                                                                                | Not in catalog                                                   |
| 53                                       | ENGL          | 364           | Native American Women Writers                                                              | topics-like                                                      |
| 54                                       | ENGL          | 365           | Chicano/a Cultural Studies                                                                 | topics-like                                                      |

|     |           |      |                                                                                    |                                                          |
|-----|-----------|------|------------------------------------------------------------------------------------|----------------------------------------------------------|
| 55  | ENGL      | 420  | Professional Writing in Globalized World                                           | Special topics                                           |
| 56  | ENGL      | 455  | Women Writers and Fictions of Seduction and Rape                                   | Special topics                                           |
| 57  | ENGL      | 458  | Modern British Literature                                                          | topics-like                                              |
| 58  | ENGL      | 464  | 20th Century Native American Literature                                            | topics-like                                              |
| 59  | ENGL      | 465  | Chicano/a Narrative                                                                | topics-like                                              |
| 60  | ENGL      | 468  | Asian American Literature                                                          | Special topics                                           |
| 61  | ENGL      | 474  | Contemporary Southwest Literature                                                  | topics-like                                              |
| 62  | ENGL      | 555  | Women Writers                                                                      | never submitted a syllabus                               |
| 63  | ENGL      | 574  | Contemporary Southwest Literature                                                  | topics-like                                              |
| 64  | ENGL      | 568  | Asian American Literature                                                          | Special topics                                           |
| 65  | ENGL      | 650  | Post Colonialism                                                                   | Seminar course                                           |
| 66  | FREN      | 175  | French                                                                             | never submitted a syllabus                               |
| 67  | FREN      | 201  | French                                                                             | never submitted a syllabus                               |
| 68  | FREN      | 332  | Rebels Without a Cause                                                             | Not in catalog                                           |
| 69  | GEOG      | 102  | Intro to Human Geography                                                           | Not approved by committee                                |
| 70  | GEOG      | 464  | Food and Natural Resources                                                         | Not approved by committee                                |
| 71  | GRMN      | 201  | German                                                                             | never submitted a syllabus                               |
| 72  | GRMN      | 202  | German                                                                             | never submitted a syllabus                               |
| 73  | HIST      | 300  | North American Borderlands                                                         | Special topics                                           |
| 74  | HIST      | 300  | Europe & the Balkans                                                               | Special topics                                           |
| 75  | HIST      | 300  | The Irish Diaspora                                                                 | Special topics                                           |
| 76  | HIST      | 300  | Medieval Minorities: Persecution, Tolerance & Coexistence                          | Special topics                                           |
| 77  | HIST      | 320  | History of Women from Ancient Times to the Enlightenment                           | NOT IN CATALOG<br>Did not submit a syllabus or checklist |
| 78  | HIST      | 321  | Women in the Modern World                                                          | NOT IN CATALOG<br>Did not submit a syllabus or checklist |
| 79  | HIST      | 322  | History of the Women's Rights Movement                                             | NOT IN CATALOG<br>Did not submit a syllabus or checklist |
| 80  | HIST      | 324  | Modern History of the Jewish People                                                | NOT IN CATALOG<br>Did not submit a syllabus or checklist |
| 81  | HIST      | 344  | U.S Women to 1865                                                                  | NOT IN CATALOG<br>Did not submit a syllabus or checklist |
| 82  | HIST      | 364  | Contemporary Chicano(a) History                                                    | NOT IN CATALOG<br>Did not submit a syllabus or checklist |
| 83  | HIST      | 387  | Modern Middle East                                                                 | Special topics                                           |
| 84  | HIST      | 375  | Rebellion and Revolution in Modern Andean Nations                                  | NOT IN CATALOG<br>Did not submit a syllabus or checklist |
| 85  | HIST      | 473  | Indigenous Peoples in Latin America                                                | Not in catalog                                           |
| 86  | HIST      | 300  | India During the British Rule                                                      | Did not submit a syllabus or checklist                   |
| 87  | HIST      | 471  | Women in Early Latin America                                                       | not in catalog                                           |
| 88  | HIST      | 684  | Seminar: Chicano Political and Intellectual Theory                                 | Seminar course                                           |
| 89  | IFDM/LTAM | 400  | LTAM 400: Topics in Latin America Studies                                          | Topics                                                   |
| 90  | JAPN      | 200  | Gender in Japanese Culture                                                         | Special topics                                           |
| 91  | JAPN      | 200  | Imperial & Colonial Japan                                                          | Special topics                                           |
| 92  | JAPN      | 201  | Japanese                                                                           | Did not submit a checklist                               |
| 93  | JAPN      | 320  | Japanese Society                                                                   | Special topics                                           |
| 94  | JAPN      | 339  | Topics in Japanese Literature and Culture in Translation                           | Special topics                                           |
| 95  | LEAD      | 600  | An Ethnographic Examination of College Students                                    | NOT IN CATALOG<br>Did not submit a syllabus or checklist |
| 96  | LEAD      | 593  | Diversity and Multiculturalism in Higher Education                                 | Special topics                                           |
| 97  | LEAD      | 595  | Anthropology                                                                       | Advance Field Experiences                                |
| 98  | LLSS      | 593  | Critical Theory and Education                                                      | Special topics                                           |
| 99  | MGMT      | 490  | Women in Management                                                                | Special topics in Management (offered upon demand)       |
| 100 | MGMT      | 490  | Indigenous Entrepreneurship                                                        | Special topics in Management (offered upon demand)       |
| 101 | MLNG      | 109  | Biblical Hebrew                                                                    | Not in catalog                                           |
| 102 | NATV      | 450  | Indigenous Leadership (requested to be omitted from list)                          | Topics in Native American Studies                        |
| 103 | NATV      | 450  | Native American Vote and Political Ambivalence (requested to be omitted from list) | Topics in Native American Studies                        |
| 104 | NATV      | 450  | Principles of Leadership                                                           | Topics in Native American Studies                        |
| 105 | NATV      | 450  | Digital (requested to be omitted from list)                                        | Topics in Native American Studies                        |
| 106 | NATV      | 450  | Native American Newspaper Publications (requested to be omitted from list)         | Topics in Native American Studies                        |
| 107 | NATV      | 450  | Critical Navajo Studies (requested to be omitted from list)                        | Topics in Native American Studies                        |
| 108 | NURS      | 331L | Principles and Application, Community Assessment                                   | Did not submit a syllabus or checklist                   |
| 109 | NVJO      | 101  | Elementary Navajo for Non-Native Speakers                                          | Did not submit a syllabus or checklist                   |
| 110 | NVJO      | 102  | Elementary Navajo for Non-Native Speakers                                          | Did not submit a syllabus or checklist                   |
| 111 | NVJO      | 201  | Intermediate Navajo                                                                | never submitted a syllabus                               |
| 112 | NVJO      | 202  | Intermediate Navajo                                                                | Did not submit a syllabus or checklist                   |
| 113 | NVJO      | 206  | Creative Writing and Advanced Reading                                              | Did not submit a syllabus or checklist                   |

|     |      |     |                                                           |                                                              |
|-----|------|-----|-----------------------------------------------------------|--------------------------------------------------------------|
| 114 | OCTH | 499 | Introduction to Mexican Traditional Medicine              | No longer a course - per instructor                          |
| 115 | OILS | 493 | Roots of Poor Health & Action at the Local Level          | Special topics                                               |
| 116 | PADM | 590 | Native American Economic Development                      | Topical seminar                                              |
| 117 | PADM | 590 | Native American Economic Development                      | Special topics                                               |
| 118 | PCST | 221 | Global Issues                                             | Did not submit a syllabus or checklist                       |
| 119 | PHIL | 101 | Introduction to Philosophical Problems                    | Multiple section - dept chair not sure if should be included |
| 120 | PHIL | 441 | Philosophy of Gender (Remove per instructor)              | Topics: Figures & Movement                                   |
| 121 | POLS | 300 | Comparative Health Policy                                 | Special topics                                               |
| 122 | PORT | 201 | Intermediate Portuguese                                   | Did not submit a syllabus or checklist                       |
| 123 | PORT | 275 | Intensive Intermediate Portuguese                         | Did not submit a syllabus or checklist                       |
| 124 | PORT | 276 | Intensive Intermediate Portuguese                         | Did not submit a syllabus or checklist                       |
| 125 | RUSS | 201 | Intermediate Russian I (Remove from list per instructor)  | Remove from list per instructor                              |
| 126 | RUSS | 202 | Intermediate Russian II (Remove from list per instructor) | Remove from list per instructor                              |
| 127 | SHS  | 459 | Multicultural Considerations in Communication             | NOT IN CATALOG<br>Did not submit a syllabus or checklist     |
| 128 | SOC  | 101 | Introduction to Sociology                                 | Did not submit a syllabus or checklist                       |
| 129 | SOC  | 398 | Special Topics: Community Organizing                      | Special topics                                               |
| 130 | SOC  | 507 | Intersectionalities: Races and Gender                     | Special topics                                               |
| 131 | SOC  | 507 | Race and Education                                        | Special topics                                               |
| 132 | SPAN | 200 | Intermediate Spanish Abroad                               | Did not submit a syllabus or checklist                       |
| 133 | SPAN | 201 | Intermediate Spanish I                                    | Did not submit a syllabus or checklist                       |
| 134 | SPAN | 202 | Intermediate Spanish II                                   | Did not submit a syllabus or checklist                       |
| 135 | SPAN | 203 | Spanish Conversation                                      | never submitted a syllabus                                   |
| 136 | SPAN | 212 | Intermediate Spanish as a Heritage Lang. II               | never submitted a syllabus                                   |
| 137 | SPAN | 212 | Intermediate Spanish as a Heritage Language II            | never submitted a syllabus                                   |

Current user: cclark48 / **Comments (7)** / Form Transaction Log

## Curriculum Workflow



[Link to Curricula Forms Process Manual](#)

### DEGREE/PROGRAM CHANGE FORM C Form Number: C1361



Fields marked with \* are required

Name of Initiator: Ziarat Hossain Email: [zhossain@unm.edu](mailto:zhossain@unm.edu) Phone Number: 505 277-4162 Date: 11-13-2013

Associated Forms exist?\*  Initiator's Title\* Professor: Individual Family Comm Educ I

Faculty Contact\* Zia Hossain

Administrative Contact\* Cynthia Salas

Department\* Family Studies IFCE

Admin Email\* [casalas@unm.edu](mailto:casalas@unm.edu)

Branch

Admin Phone\* 277-4318

Proposed effective term

Semester  Year

#### Course Information

Select Appropriate Program\*

Name of New or Existing Program\* BA Family Studies

Select Category\*  Degree Type BA

Select Action

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[FCS BA.docx](#)

[4 Year Degree Plan FCS-BA.docx](#)

☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.

**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

[REGISTRAR'S NOTE: THIS FORM REQUESTS A CHANGE OF NAME FOR THE MAJOR AS WELL AS CHANGES TO PROGRAM REQUIREMENTS.] This is part of a significant revision of the Family Studies (FS) program that includes major curriculum changes to the existing BS degree. The revised BS degree will be in Child and Family Studies (FCS). In line with this change, we need to revise the core curriculum for the BA degree in FCS. The revision will result in minimal curricular changes. FCS majors for B.S. (for College of Education students) and B.A. (for College of A&S students) degrees would be able to take the same 12 credits of super core courses (FCS 281, 305, 481, 484). Also, this change will allow FCS - B.A. students more flexibility in selecting elective courses.

[FCS BA.docx](#)

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)

[Justification - Budget.docx](#)

☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.

**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)

**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)

[View Comments on this Form](#)  
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Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001

## B.A. in Family and Child Studies (revised)

**(Arts and Sciences Students)**

### **Major: Family and Child Studies**

#### **FCS Core Curriculum \_\_\_\_\_ 12 Credits**

|         |                                                     |   |
|---------|-----------------------------------------------------|---|
| FCS 105 | Introduction to Family and Child Studies            | 3 |
| FCS 305 | Research and Evaluation in Family and Child Studies | 3 |
| FCS 481 | Families, Children and Public Policies              | 3 |
| FCS 484 | The Sociocultural Context of Children and Families  | 3 |

#### **Other Required Curriculum \_\_\_\_\_ 12 Credits**

|         |                                   |   |
|---------|-----------------------------------|---|
| FCS 213 | Marriage and Family Relationships | 3 |
| FCS 312 | Parent-Child Interactions         | 3 |
| FCS 343 | Family Management Theories        | 3 |
| FCS 395 | Field Experience I                | 3 |

#### **Additional FCS Curriculum \_\_\_\_\_ 12 Credits**

#### **Total Required Hours \_\_\_\_\_ 36 Credits**

To fulfill additional 12 FCS credits, take any four courses from the list below:

|         |                                               |   |
|---------|-----------------------------------------------|---|
| FCS 203 | Infant Growth and Development                 | 3 |
| FCS 304 | Growth and Development in Middle Childhood    | 3 |
| FCS 310 | Friends and Intimate Relationships            | 3 |
| FCS 311 | Family Language and Culture                   | 3 |
| FCS 313 | Family Theories and Contemporary Lifestyles   | 3 |
| FCS 315 | Adolescent Development in the Family          | 3 |
| FCS 321 | Young Children with Diverse Abilities         | 3 |
| FCS 341 | Ecological Aspects of Housing                 | 3 |
| FCS 344 | Consumer Decisions                            | 3 |
| FCS 401 | Research in Child Growth, Dev. & Learning     | 3 |
| FCS 403 | Growth and Development of the Preschool Child | 3 |
| FCS 411 | Marriage and Family Life Education            | 3 |
| FCS 412 | Fathering                                     | 3 |
| FCS 416 | Adult Development in the Family               | 3 |
| FCS 443 | Application of Family Management Theories     | 3 |

\* For Minor and General Education Requisites, please consult with your advisor in your College.



## B.A. in FAMILY STUDIES

(Arts and Sciences Students)

Major: Family Studies (**Existing Curriculum**)

### Family Studies Courses

#### Family Studies Core Curriculum \_\_\_\_\_ 21 Credits

|        |                                   |   |
|--------|-----------------------------------|---|
| FS 213 | Marriage and Family Relationships | 3 |
| FS 281 | Introduction to Family Studies    | 3 |
| FS 312 | Parent-Child Interactions         | 3 |
| FS 343 | Family Management Theories        | 3 |
| FS 395 | Field Experience I                | 3 |
| FS 481 | Family and Public Policy          | 3 |
| FS 484 | Ethnic Minority Families          | 3 |

#### Family Resource Management \_\_\_\_\_ 9 Credits

|        |                                           |   |
|--------|-------------------------------------------|---|
| FS 341 | Ecological Aspects of Housing             | 3 |
| FS 344 | Consumer Decisions                        | 3 |
| FS 443 | Application of Family Management Theories | 3 |
| FS 444 | Family Finance                            | 3 |

#### Human Development and Family Relations \_\_\_\_\_ 6 Credits

|        |                                               |   |
|--------|-----------------------------------------------|---|
| FS 202 | Infant Growth and Development                 | 3 |
| FS 304 | Growth and Development in Middle Childhood    | 3 |
| FS 310 | Friends and Intimate Relationships            | 3 |
| FS 313 | Family Theories and Contemporary Lifestyles   | 3 |
| FS 315 | Adolescent Development in the Family          | 3 |
| FS 403 | Growth and Development of the Preschool Child | 3 |
| FS 411 | Marriage and Family Life Education            | 3 |
| FS 412 | Fathering                                     | 3 |
| FS 416 | Adult Development in the Family               | 3 |

#### Total Required Hours \_\_\_\_\_ 36 Credits

\* For General Education Requisites, please consult with your advisor in your College.

### **Justification, Impact, Budget, Faculty Workload**

This change is a revision of an existing program (i.e., BA in Family Studies) in the IFCE department. Under the proposed changes the A&S students will receive a BA in Family and Child Studies (FCS). We are proposing to revise the course curriculum so that BA (for A&S students) and BS (COE students) majors take the same core courses. Also, the proposed change will allow the BA majors more flexibility in choosing elective courses in FCS program. The change has no budgetary and faculty load implications since we are not introducing any new courses or requirements. Students will continue to take a total of 36 credits in the FCS degree program as in the existing Family Studies (FS) program. Also, for details, see Executive Summary of the merger.

**Current user: cclark48 / Comments (7) / Form Transaction Log**  
**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C  
Form Number: C1362**

Fields marked with \* are required

Name of Initiator: Ziarat Hossain Email: [zhossain@unm.edu](mailto:zhossain@unm.edu) Phone Number: 505 277-4162 Date: 11-15-2013

Associated Forms exist?\* No Initiator's Title\* Professor: Individual Family Comm Educ I

Faculty Contact\* Zia Hossain

Administrative Contact\* Cynthia Salas

Department\* Family Studies IFCE

Admin Email\* [casalas@unm.edu](mailto:casalas@unm.edu)

Branch

Admin Phone\* 277-4318

Proposed effective term

Semester Fall Year 2016

**Course Information**

Select Appropriate Program\* Undergraduate Degree Program

Name of New or Existing Program\* Human Development and Family Relations Minor

Select Category \* Minor Degree Type

Select Action Deletion

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

As part of a significant revision of the Family Studies (FS) program, we will no longer offer a minor in Human Development and Family Relations (HDFR). Courses used in HDFR minor will be accommodated in a revised minor named Family and Child Studies (FCS). It may be worthwhile to mention that the proposed FCS minor is a revision of an existing minor (Family Studies) and a separate FORM C has been submitted for FCS minor.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[View Comments on this Form](#)  
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Current user: cclark48 / **Comments (10)** / Form Transaction Log**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C  
Form Number: C1667**

Fields marked with \* are required

Name of Initiator: Stephen Burd Email: [burd@unm.edu](mailto:burd@unm.edu) Phone Number: 505 277-6418 Date: 09-21-2015**Associated Forms exist?\*** Yes  **Initiator's Title\*** Associate Professor: ASM Mrkting Info Decision Sci**Faculty Contact\*** Stephen Burd**Administrative Contact\*** Stephen Burd**Department\*** ASM MIDS**Admin Email\*** burd@unm.edu**Branch****Admin Phone\*** 505-277-6418**Proposed effective term**Semester   Year  **Course Information****Select Appropriate Program\***  **Name of New or Existing Program\*** MS Information Systems & Assurance**Select Category \***   Degree Type MSSelect Action  **Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[MsisaProgramUpdates\\_DraftProposal\\_20150829.doc](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

Fine tune admission requirements, clarify role of plan of study vis a vis graduation, and update courses based on current offerings.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[FormC\\_BudgetAndFacultyLoad\\_20150922.doc](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[View Comments on this Form](#)  
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# Proposed Updates to MS in Information Systems and Assurance

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## Executive Summary

The MS-ISA Program has been in operation since Fall 2014. It has graduated 25 students and has approximately 60 currently active students. The original program proposal was developed in late 2012 and was not updated as it moved through the approval process to avoid approval delays. Experience with a year's worth of admissions and plans of study have shown that some of the underlying assumptions of the original program were inaccurate or were not well-incorporated into catalog language. Further, because the technology focus areas of the program change rapidly, some changes in the program are needed to fine-tune its content to match current technology and market demands.

In summary form, the proposed changes are:

1. Include professional communications in the program via undergraduate course and/or professional skill prerequisites rather than formal graduate coursework.
2. Expand the course selection within the management group to include MGMT 501 (Data Driven Decision Making)
3. Adjust the program's catalog description to make it clear that conformity with an approved plan of study is a graduation requirement
4. Adjust the courses that comprise the Technology Group to reflect an expanded range of options.
5. Adjust program admission requirements to allow both undergraduate and graduate coursework to count toward the 30 credit hour requirement for management, computer science, or computer engineering courses. Also, modify the wording of the requirement to make it clear that accounting and information systems courses are included.
6. Assign permanent course numbers to Data Warehousing and Data & Text Mining (currently offered as MGMT 639 sections) and include both of the new courses in the Technology Group.

All of the proposed changes would be implemented for Fall 2016.

Details of and rationale for the changes are included below. Current catalog language for the program and updated language that incorporates all of changes proposed herein are included as appendices to this proposal. Syllabi for the new courses are also included as appendices.

## Professional Communications

When the original MS-ISA program proposal was developed there was a parallel proposal under development to modify the MBA program. One feature of the MBA proposal was a required two credit course in Professional Communications. The MS-ISA proposal also incorporated this course under the assumption that those skills were needed by program graduates, especially those with undergraduate backgrounds that presumably lacked significant communication content such as computer science (CS) and engineering. The new course was created as MGMT 533 and is currently in the UNM catalog though it has never been offered. A similar three credit course (MGMT 733) does exist and is offered once per year as part of the Executive MBA program

The MBA proposal that included MGMT 533 was never approved. In addition, subsequent experience with MS-ISA admission have shown that most entering students already possess significant professional communication skills gained through undergraduate courses, professional experience, or both. This is true even for international students and for students with undergraduate backgrounds in CS or engineering. As such, at most a handful of entering students need a professional communications course each year – too few to justify offering and staffing the course if there are other alternatives.

Other alternatives include courses already offered at UNM and elsewhere and incorporated into Bachelor's level programs. Examples include ENGL 219 (Technical Writing) and CJ 130 (Public Speaking). Communications and Journalism also offers more advanced professional communication courses including CJ 332 (Business and Professional Speaking) and CJ 333 (Professional Communication).

## Proposal

- Remove MGMT 533 from the Required Group and remove the course from the catalog
- Change the number of Required Group Credit Hours from 11 to 9.
- Change the minimum number of Technology Group credit hours from 9 to 11.
- Add the following requirement to the list of admission requirements:

***Proficiency in English-language professional communications demonstrated by undergraduate courses, professional experience, or both. Students who lack proficiency may be admitted provisionally but must complete one or two undergraduate professional communication courses selected by the faculty advisor or admission committee in the first two semesters with grades of B or better.***

## MGMT 501

Managerial statistics and related decision-making techniques aren't currently included in the program unless specifically incorporated within courses technical group courses in analytics. Incorporating MGMT 501, an existing MBA core course, would serve multiple purposes:

- Recognize the pervasive role of statistics in modern management
- Enable more students to include MGMT 520 in their management group courses (MGMT 501 is a prerequisite)
- Eliminate the need to override current program requirements for students focusing on data analytics but lacking substantial or recent statistical skills

## Proposal

- Add MGMT 501 to the list of Management Group courses

## Plans of Study and Graduation Requirements

Current program requirements state that an approved plan of study is a program admission requirement. The plan of study is a roadmap from the student's current profile of knowledge, skills, and experiences to a graduation profile that maximizes the student's ability to achieve his or her educational and career objectives.

The intent of the committee that developed the program was to ensure that students were well-advised and that all graduates achieved a level of educational and professional attainment that reflect well on ASM, UNM, and by extension, all program graduates. The process of developing and updating plans of study is cooperative. It establishes a partnership between MS-ISA faculty members and the student that serves the interest of both.

Although those intentions is well-represented in current admissions policy and advisement practice, **they aren't formally incorporated into graduation requirements.** Were a student to deviate from the faculty-approved plan of study but still meet "the letter" of other program requirements, the issue of whether they are eligible for graduation would be unclear. The intent of the proposed change is to clarify the original intent that the plan of study is a binding contract on both ASM and the student and that describes graduation requirements specific to the student.

## Proposal

- Replace the content under the current heading **Advisement and Plan of Study** with the following:

***Advisement prior to first-semester enrollment and a formal plan of study are mandatory. A faculty advisor or committee will work cooperatively with each admission candidate to develop and approve a plan that includes specific courses that match the student's intended career path, complements his or her bachelor's degree and work experience, and ensures that each program graduate reflects positively on UNM, ASM, and the MS-ISA program. Modifications to the initial plan of study may be requested by the student at any time but must be approved by the faculty advisor or committee. Each approved plan is a student-specific set of courses that must be successfully completed for that student to graduate.***

## Admission Requirements – Undergraduate Courses

Current catalog language includes an admission requirement for ***Completed Bachelor's degree with at least 30 credit hours of courses in management, computer science, or computer-related engineering.*** The intent of the requirement was to ensure a minimum preparation bar in one or more of the included areas. As a practical matter, that bar accomplishes two purposes:

- Prevents students with very weak or non-existent backgrounds in the aforementioned areas from being admitted, which indirectly ensures a minimum quality level for program graduates.
- Ensures that most students waive some combination of management group and required group courses, effectively increasing the depth of technical group preparation.
- Provides flexibility in the way the previous purpose is realized by generating management group course waivers for students with a BBA and required/technical group waivers for students with a CS or engineering Bachelor's degree.

The current catalog language doesn't specifically incorporate accounting nor management information systems courses though they've been operationally defined as being included within management courses. More problematic, the current language doesn't enable students to fulfill the intent of the requirement with graduate courses not included as part of the plan of study. The proposed change updates catalog language to clarify the breath of management courses and that either undergraduate or graduate courses may be used to fulfill the requirement.

### Proposal

- Replace the first bullet under the heading Admission Requirements with the following two bullets:
  - ***Completed bachelor's degree.***
  - ***At least 30 credit hours of undergraduate or graduate courses in management, accounting, information systems, computer science, computer-related engineering, or a combination thereof.***

## New Courses

Two currently offered sections of MGMT 639 are proposed as individually numbered and cataloged courses. Both courses have been taught twice and both are key components of the data analytics focus area within the MS-ISA. See appendices for course syllabi.

### Proposal

**Create two new courses as follows:**



- **MGMT 645 – Data & Text Mining (3 credits) – Need catalog description – Pre- or co-requisite: MGMT 635. Recommended pre- or co-requisite: MGMT 329 or 637**
- **MGMT 644 – Data Warehousing (3 credits) – Need catalog description – Prerequisite: MGMT 329 or 637. Pre- or co-requisite: MGMT 635**

## Technology Group Courses

Course offerings have expanded in related technology focus areas since the MS-ISA was first proposed. Expanding the list of technology group courses to incorporate additional courses will formalize a greater range of options for students. Also, the graduate internship course (MGMT 697) isn't currently included in the program but it should be incorporated to enable students who would benefit from that inclusion to do so.

## Proposal

- **Add the following courses to the list of technology group courses:**
  - **MGMT 645 (Data & Text Mining)**
  - **MGMT 644 (Data Warehousing)**
  - **MGMT 697 (Internship)**
  - [CS 521 \(Data Mining Techniques\)](#)
  - [CS 567 \(Principles and Applications of Big Data\)](#)
  - [CS 583 \(Object-Oriented Testing\)](#)
  - [ECE 525 \(Hardware-Oriented Security and Trust\)](#)
  - [ECON 309 \(Introductory Statistics and Econometrics\)](#)

# Appendix A

## Current MS-ISA Program Description

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### Master of Science in Information Systems and Assurance

#### Introduction

The Master of Science (M.S.) in Information Systems and Assurance degree is targeted to students holding a B.B.A. or similar degree with an accounting specialization, a B.B.A. or similar degree with a specialization in information systems or technology, or a B.S. in computer science or computer-related engineering. The degree prepares students for advanced positions in information system management, information system development, and information assurance.

---

#### Admission Requirements

- Completed bachelor's degree with at least 30 credit hours of courses in management, computer science, or computer-related engineering.
  - A grade point average of 3.0 for the last 60 credit hours of college coursework, including any post-baccalaureate work.
  - A score equal to or greater than 500 on the Graduate Management Admission Test (GMAT), or a Graduate Record Examination (GRE) score that is equal to or greater than 500 on the quantitative section and a score equal to or greater than 500 on the verbal section.
- 

#### Advisement and Plan of Study

Advisement prior to first-semester enrollment and a formal plan of study is mandatory. Individual students are advised to enroll in specific classes that match their intended career path and complement their bachelor's degree and work experience. Plan of study approvals are granted by a designated faculty advisor or committee.

---

## Program Requirements

Students must complete a minimum of 32 credit hours of courses within the following groups:

**Core Group:** 11 credit hours - Courses may be waived based on similar undergraduate/graduate courses or experience. Credit Hours

|          |                                       |   |
|----------|---------------------------------------|---|
| MGMT 533 | Professional Communications           | 2 |
| MGMT 631 | Information System Project Management | 3 |
| MGMT 636 | Information Systems Security          | 3 |
| MGMT 637 | Database Management Systems           | 3 |

**Management Group:** 12 credit hours minimum - Up to 12 credit hours may be waived based on similar undergraduate/graduate courses or experience. Select from:

|          |                                   |   |
|----------|-----------------------------------|---|
| MGMT 502 | Financial Accounting and Analysis | 3 |
| MGMT 503 | Managerial-Cost Accounting        | 3 |
| MGMT 506 | Managing People in Organizations  | 3 |
| MGMT 508 | Business and Society              | 3 |
| MGMT 520 | Operations Management             | 3 |
| MGMT 522 | Managerial Marketing              | 3 |
| MGMT 526 | Financial Decision Making         | 3 |
| MGMT 633 | Vendor and Contract Management    | 3 |

**Technology Group:** 9 credit hour minimum - Select from:

|              |                              |     |
|--------------|------------------------------|-----|
| MGMT 551-552 | Problems                     | 1-3 |
| MGMT 553     | Internal Auditing            | 3   |
| MGMT 594     | Special Topics in Management | 3   |
| MGMT 599     | Master's Thesis              | 1-6 |

|          |                                                    |     |
|----------|----------------------------------------------------|-----|
| MGMT 630 | Management of Information Systems                  | 3   |
| MGMT 632 | Web Application Development                        | 3   |
| MGMT 634 | Information Systems Analysis and Design            | 3   |
| MGMT 635 | Decision Support and Business Intelligence Systems | 3   |
| MGMT 639 | Advanced Topics in Management Information Systems  | 3   |
| MGMT 641 | Forensic Accounting                                | 3   |
| MGMT 642 | Fraud Examination                                  | 3   |
| MGMT 646 | Digital Forensics                                  | 3   |
| MGMT 647 | System and Network Administration                  | 3   |
| MGMT 648 | Advanced Information System Security               | 3   |
| MGMT 649 | Information Assurance Project                      | 3   |
| CS 544   | Introduction to Cybersecurity*                     | 3   |
| CS 565   | Topics in Database Management*                     | 3   |
| CS 581   | Fundamentals of Software Testing*                  | 3   |
| ECE 595  | Special Topics*                                    | 1-4 |

\* And other graduate-level CS and ECE courses with advisor approval.

# Appendix B

## Updated MS-ISA Program Description

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### Master of Science in Information Systems and Assurance

#### Introduction

The Master of Science (M.S.) in Information Systems and Assurance degree is targeted to students holding a B.B.A. or similar degree with an accounting specialization, a B.B.A. or similar degree with a specialization in information systems or technology, or a B.S. in computer science or computer-related engineering. The degree prepares students for advanced positions in information system management, information system development, and information assurance.

---

#### Admission Requirements

- Completed bachelor's degree ~~with at least 30 credit hours of courses in management, computer science, or computer-related engineering.~~
  - ~~At least 30 credit hours of undergraduate or graduate courses in management, accounting, information systems, computer science, computer-related engineering, or a combination thereof.~~
  - ~~Proficiency in English-language professional communications demonstrated by undergraduate courses, professional experience, or both. Students who lack proficiency may be admitted provisionally but must complete one or two undergraduate professional communication courses selected by the faculty advisor or admission committee in the first two semesters with grades of B or better.~~
  - A grade point average of 3.0 ~~or higher~~ for the last 60 credit hours of college coursework, including any post-baccalaureate work.
  - A score equal to or greater than 500 on the Graduate Management Admission Test (GMAT), or a Graduate Record Examination (GRE) score that is equal to or greater than 500 on the quantitative section and a score equal to or greater than 500 on the verbal section.
- 

#### Advisement and Plan of Study

Advisement prior to first-semester enrollment and a formal plan of study is mandatory. ~~Individual students are advised to enroll in specific classes that match their intended career path and complement~~

~~their bachelor's degree and work experience. Plan of study approvals are granted by a designated faculty advisor or committee.~~ A faculty advisor or committee will work cooperatively with each admission candidate to develop and approve a plan that includes specific courses that match the student's intended career path, complements his or her bachelor's degree and work experience, and ensures that each program graduate reflects positively on UNM, ASM, and the MS-ISA program. Modifications to the initial plan of study may be requested by the student at any time but must be approved by the faculty advisor or committee. Each approved plan is a student-specific set of courses that must be successfully completed for that student to graduate.

---

## Program Requirements

Students must complete a minimum of 32 credit hours of courses within the following groups:

|                                                                                                                                        |              |
|----------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <b>Core Group:</b> <del>11</del> 9 credit hours - Courses may be waived based on similar undergraduate/graduate courses or experience. | Credit Hours |
|----------------------------------------------------------------------------------------------------------------------------------------|--------------|

|                     |                                        |              |
|---------------------|----------------------------------------|--------------|
| <del>MGMT 533</del> | <del>Professional Communications</del> | <del>2</del> |
| MGMT 631            | Information System Project Management  | 3            |
| MGMT 636            | Information Systems Security           | 3            |
| MGMT 637            | Database Management Systems            | 3            |

**Management Group:** 12 credit hours minimum - Up to 12 credit hours may be waived based on similar undergraduate/graduate courses or experience. Select from:

|                     |                                        |              |
|---------------------|----------------------------------------|--------------|
| <del>MGMT 501</del> | <del>Data Driven Decision Making</del> | <del>3</del> |
| MGMT 502            | Financial Accounting and Analysis      | 3            |
| MGMT 503            | Managerial-Cost Accounting             | 3            |
| MGMT 506            | Managing People in Organizations       | 3            |
| MGMT 508            | Business and Society                   | 3            |
| MGMT 520            | Operations Management                  | 3            |
| MGMT 522            | Managerial Marketing                   | 3            |
| MGMT 526            | Financial Decision Making              | 3            |

|                                                                  |                                                    |     |
|------------------------------------------------------------------|----------------------------------------------------|-----|
| MGMT 633                                                         | Vendor and Contract Management                     | 3   |
| <b>Technology Group: 9-11 credit hour minimum - Select from:</b> |                                                    |     |
| MGMT 551-552                                                     | Problems                                           | 1-3 |
| MGMT 553                                                         | Internal Auditing                                  | 3   |
| MGMT 594                                                         | Special Topics in Management                       | 3   |
| MGMT 599                                                         | Master's Thesis                                    | 1-6 |
| MGMT 630                                                         | Management of Information Systems                  | 3   |
| MGMT 632                                                         | Web Application Development                        | 3   |
| MGMT 634                                                         | Information Systems Analysis and Design            | 3   |
| MGMT 635                                                         | Decision Support and Business Intelligence Systems | 3   |
| MGMT 639                                                         | Advanced Topics in Management Information Systems  | 3   |
| MGMT 641                                                         | Forensic Accounting                                | 3   |
| MGMT 642                                                         | Fraud Examination                                  | 3   |
| MGMT 644                                                         | Data Warehousing                                   | 3   |
| MGMT 645                                                         | Data & Text Mining                                 | 3   |
| MGMT 647                                                         | System and Network Administration                  | 3   |
| MGMT 648                                                         | Advanced Information System Security               | 3   |
| MGMT 649                                                         | Information Assurance Project                      | 3   |
| MGMT 697                                                         | Internship                                         | 3   |
| CS 521                                                           | Data Mining Techniques                             | 3   |
| CS 544                                                           | Introduction to Cybersecurity*                     | 3   |
| CS 565                                                           | Topics in Database Management*                     | 3   |

|         |                                         |     |
|---------|-----------------------------------------|-----|
| CS 567  | Principles and Applications of Big Data | 3   |
| CS 581  | Fundamentals of Software Testing*       | 3   |
| CS 583  | Object-Oriented Testing                 | 3   |
| ECE 525 | Hardware-Oriented Security and Trust    | 3   |
| ECE 595 | Special Topics*                         | 1-4 |

\* And other graduate-level CS and ECE courses with advisor approval.



# Appendix C

## MGMT 644 Syllabus

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# Appendix D

## MGMT 645 Syllabus

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# Form C Attachment

## MS-ISA Updates for Fall 2016

### Budget and Faculty Load Implications

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#### Summary of Proposed Changes

In summary form, the proposed changes to the MS-ISA are:

1. Include professional communications in the program via undergraduate course and/or professional skill prerequisites rather than formal graduate coursework.
2. Expand the course selection within the management group to include MGMT 501 (Data Driven Decision Making)
3. Adjust the program's catalog description to make it clear that conformity with an approved plan of study is a graduation requirement
4. Adjust the courses that comprise the Technology Group to reflect an expanded range of options.
5. Adjust program admission requirements to allow both undergraduate and graduate coursework to count toward the 30 credit hour requirement for management, computer science, or computer engineering courses. Also, modify the wording of the requirement to make it clear that accounting and information systems courses are included.
6. Assign permanent course numbers to Data Warehousing and Data & Text Mining (currently offered as MGMT 639 sections) and include both of the new courses in the Technology Group.

#### Budgetary and Faculty Load Implications

1. MGMT 533 is on the books but has never been offered. Thus removing it from the MS-ISA has no net impact on ASM nor faculty load. A slight increase in enrollment for courses such as ENGL 219, CJ 130, CJ 332, and CJ 333 may be created. However, the majority of students admitted thus far to the MS-ISA have been determined to have adequate professional communication skills. At most, a handful of international students per year might be directed to take one or more of the undergraduate courses listed above. That number of students isn't enough to warrant additional sections and the budget and faculty load implications they would imply. In sum, **there are no measurable budget nor faculty load implications from dropping MGMT 533 as an MS-ISA required course.**

2. Multiple sections of MGMT 501 are offered each academic year to serve MBA students. It is rare for all sections to be fully enrolled. In addition, most MS-ISA applicants to date have completed at least one undergraduate statistics course and would thus not have had MGMT 501 included in their plans of study. The few MS-ISA students that will take MGMT 501 will take one less course from the remaining management and technical group courses. Thus, the net impact on student demand for ASM courses is zero. In sum, **there are no measurable budget nor faculty load implications from adding MGMT 501 to the MS-ISA as a management group course.**
3. Proposed change #3 doesn't add nor delete courses to the MS-ISA so **it has no budget nor faculty load implications.**
4. The proposed changes to technology group courses effectively increase the number of available options. Most of that increase is in courses offered by ECE and CS. To date, only a handful of MS-ISA students have included CS and ECE courses in their plans of study and then usually only a single course. Unless overall enrollment increases, offering more options for technology courses will simply spread existing students over a larger number of courses and sections. The impact on any one course or section will be minimal so it's highly unlikely that additional sections beyond those already offered will need to be scheduled. In sum, **proposed changes to allowable technology group courses have no likely budget nor faculty load implications.**
5. Proposed change #5 doesn't add nor delete courses from the program. Also, it codifies what has been existing practice via admission requirement waivers – allowing previously completed graduate management, CS, or ECE courses to satisfy admission requirements. Thus, no additional admissions nor enrollments are expected to arise from the change. Thus, **there are no budget nor faculty load implications.**
6. The "new" courses created by proposed change #6 aren't really new. Both have been offered as MGMT 639 (Special MIS Topics) sections. MGMT 644 has been offered as MGMT 639 in Spring 2014 and 2015 and is scheduled for Spring 2016. MGMT 644 will be offered for the first time in Spring 2017 and presumably every spring thereafter. MGMT 645 was offered as MGMT 639 in Spring 2015 and is scheduled for Spring 2016. It will be offered as MGMT 645 for the first time in Spring 2017 and presumably every spring thereafter. Professors French and Jurkat have taught all sections offered thus far and are scheduled to teach the newly-numbered sections for the foreseeable future. Since the corresponding MGMT 639 sections will no longer be scheduled once the new courses are offered, the net impact on sections offered is zero. Thus, **there are no budget nor faculty load implications from creating MGMT 644 and 645.**

**Current user: cclark48 / Comments (9) / Form Transaction Log**  
**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1680

Fields marked with \* are required

Name of Initiator: Donna Jewell Email: [djewell@unm.edu](mailto:djewell@unm.edu) Phone Number: 505 277-6711 Date: 09-29-2015

Associated Forms exist?\* No Initiator's Title\* Head of Dance: Theatre and Dance

Faculty Contact\* Donna Jewell

Administrative Contact\* Sarah Lentz

Department\* Theatre and Dance

Admin Email\* [slentz@unm.edu](mailto:slentz@unm.edu)

Branch

Admin Phone\* 277 2737

Proposed effective term

Semester Fall Year 2016

## Course Information

Select Appropriate Program\* Graduate Degree Program

Name of New or Existing Program\* MFA in Dance

Select Category \* Degree Degree Type MFA in Dance

Select Action Revision

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[Form C Master of Fine Arts in Dance revision fall 2015.docx](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

Two reasons for this request. The MFA in Dance graduate student should take the department required core 500 course under a DANC number, not a THEA number. And the addition of the option to take 579 Flamenco Choreography instead of the 510 Creative Investigations I serve the graduate student in the MFA in Dance if they are pursuing Flamenco research and practice. The 510 Creative Investigations I course is geared towards Contemporary Dance graduate research and practice.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[Justification for Form C Revision of MFA in Dance.docx](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[View Comments on this Form](#)  
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## Form C Revision of MFA in Dance

### Current Catalog listing

#### Master of Fine Arts in Dance

The Master of Fine Arts in Dance (M.F.A.) is a three-year terminal degree program that serves a select population of emerging artists pursuing a future in performance, choreography, and teaching, with focus areas in Choreography and/or Performance. The program promotes the growth and development of artistic achievement balanced with scholarship, accepting only students who show artistic excellence and who demonstrate exceptional potential for future progress. The M.F.A. dissertation in Dance consists of an evening concert of original choreography and an accompanying written dissertation.

#### Required Courses

|                              |                                                                        |
|------------------------------|------------------------------------------------------------------------|
|                              |                                                                        |
|                              | <b>Graduate Core:</b>                                                  |
| DANC 500<br>-or-<br>THEA 500 | Introduction to Graduate Study<br><br>Introduction to Graduate Studies |
| THEA 503                     | Performance Theory                                                     |
| THEA 506                     | Critical Issues in the Performing Arts                                 |
|                              | <b>Dance Core:</b>                                                     |
| DANC 510                     | Creative Investigations I                                              |
| DANC 511                     | Choreography II                                                        |
| DANC                         | Creative Investigations II                                             |

|             |                                                                       |
|-------------|-----------------------------------------------------------------------|
| 515         |                                                                       |
| DANC<br>516 | Dance Pedagogy                                                        |
| DANC<br>549 | Dance Technique for Graduate Student                                  |
| DANC        | 531, 562, 563, 564, 566 or 567 Dance History or Dance Criticism       |
| DANC<br>699 | Dissertation                                                          |
|             | <b>Electives:</b>                                                     |
|             | Six credit hours graduate electives in the student's area of interest |
|             |                                                                       |

## Revision

### Master of Fine Arts in Dance

The Master of Fine Arts in Dance (M.F.A.) is a three-year terminal degree program that serves a select population of emerging artists pursuing a future in performance, choreography, and teaching, with focus areas in Choreography and/or Performance. The program promotes the growth and development of artistic achievement balanced with scholarship, accepting only students who show artistic excellence and who demonstrate exceptional potential for future progress. The M.F.A. dissertation in Dance consists of an evening concert of original choreography and an accompanying written dissertation.

### Required Courses

|  |                       |
|--|-----------------------|
|  |                       |
|  | <b>Graduate Core:</b> |

|                 |                                                                       |
|-----------------|-----------------------------------------------------------------------|
| DANC 500        | Introduction to Graduate Study                                        |
| THEA 503        | Performance Theory                                                    |
| THEA 506        | Critical Issues in the Performing Arts                                |
|                 | <b>Dance Core:</b>                                                    |
| DANC 510 or 579 | Creative Investigations I – or – Flamenco Choreography                |
| DANC 511        | Choreography II                                                       |
| DANC 515        | Creative Investigations II                                            |
| DANC 516        | Dance Pedagogy                                                        |
| DANC 549        | Dance Technique for Graduate Student                                  |
| DANC            | 531, 562, 563, 564, 566 or 567 Dance History or Dance Criticism       |
| DANC 699        | Dissertation                                                          |
|                 | <b>Electives:</b>                                                     |
|                 | Six credit hours graduate electives in the student's area of interest |
|                 |                                                                       |



Justification for Form C Revision of MFA in Dance  
Fall 2015

Donna Jewell, Head of Dance, Department of Theatre and Dance UNM

Two changes are indicated in the Form C revision of the MFA in Dance.

The first change is in the first column of the degree requirements. The degree should require the DNCE 500 Introduction to Graduate Study and not require the THEA 500 Introduction to Graduate Studies. Although this class is the same course, meaning theatre graduate students take THEA 500 with dance graduate students in DNCE 500, the dance graduate student should be taking this course under the DNCE course number.

Second change is the option to take DNCE 579 Flamenco Choreography instead of DNCE 510 Creative Investigations I. This provides the opportunity for flamenco studies graduate students in the MFA in Dance to take a graduate level flamenco choreography class. DNCE 510 Creative Investigations I is designed for graduate level study of choreography in the Contemporary Dance genre. We are experiencing on-going admission of flamenco study students in the MFA in Dance and want to provide the best possible choreography curriculum to that type of student.

This has impact on long-range planning for the reasons indicated in the paragraph above, namely that we be prepared to provide flamenco choreography curriculum at the graduate level.

Impact on faculty is negligible. The DNCE 579 is co-offered with DNCE 479 and is an on-going course in the undergraduate curriculum, offered every fall semester.

Current user: cclark48 / **Comments (8)** / Form Transaction Log

## Curriculum Workflow



[Link to Curricula Forms Process Manual](#)

### DEGREE/PROGRAM CHANGE FORM C Form Number: C1683



Fields marked with \* are required

Name of Initiator: Alec Reber Email: [areber@unm.edu](mailto:areber@unm.edu) Phone Number: 505-272-1921 Date: 10-01-2015

Associated Forms exist?\* Yes  Initiator's Title\* Sr Program Manager

Faculty Contact\* David Peabody Administrative Contact\* Alec Reber

Department\* Biomedical Sciences Admin Email\* [areber@salud.unm.edu](mailto:areber@salud.unm.edu)

Branch Admin Phone\* 505-272-1921

Proposed effective term

Semester Summer  Year 2016

#### Course Information

Select Appropriate Program\* Graduate Degree Program

Name of New or Existing Program\* PhD Biomedical Sciences- Infectious Disease & Immunology Concentration

Select Category\* Concentration  Degree Type PHD

Select Action New

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[BSGP Infectious Disease Concentration - Catalog.pdf](#)

☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.

**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

The BSGP Steering Committee has reviewed existing curricular offerings and determined that formalizing the current requirements into concentrations (Cancer Biology - C1671, Cardiovascular Physiology - C1673, Infectious Disease - C1683 and Neuroscience - C1672 to date) is in the best interests of the students. In addition to the other Form Cs noted above, the following Form Bs are being submitted: B1717 - moving a regularly taught topics course to it's own number for use in the Neuroscience concentration. B1715 - creating a directed study course for use in the Cancer Biology concentration. Please see the attachments for additional details

[BSGP Infectious Disease Concentration - Reason.pdf](#)

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)

[BSGP Infectious Disease Concentration.pdf](#)

☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.

**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)

**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)

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# Biomedical Sciences Graduate Program, Infectious Disease & Immunology Concentration

## Proposed Effective Term

Summer 2016

## Proposed Catalog Text

Infectious Disease & Immunology – 24 credit hours

The Concentration in Infectious Disease & Immunology conforms to the basic requirements of the BSGP and will lead to a Ph.D. degree. This concentration will provide an individualized program of upper level courses and scientific research in the laboratory of a faculty member within the Infectious Diseases and Immunity Signature Research Program. The goal in this Research Program is to develop and enhance collaborative programs among researchers, physicians and businesses in New Mexico to address the threat of infectious and immunologically-mediated inflammatory diseases in New Mexican populations and the world by characterizing epidemiologic issues, studying basic host-pathogen mechanisms, developing new vaccines, therapeutics, and diagnostics, and testing the preventive, therapeutic and diagnostic efficacy of these discoveries in clinical trials.

## Program Requirements

1. Complete first year BSGP core curriculum:

| Course No. | Course title                                                               | Credit hrs |
|------------|----------------------------------------------------------------------------|------------|
| BIOM 501   | Fundamentals for Graduate Research                                         | 1          |
| BIOM 506   | Special Topics in Biomedical Research (rotations)                          | 3          |
| BIOM 507   | Advanced Molecular Biology                                                 | 4          |
| BIOM 508   | Advanced Cellular Biology                                                  | 4          |
| BIOM 525   | Cell and Molecular Basis of Disease Journal Club (2 semesters, year 1)     | 4          |
| BIOM 530   | Cell and Molecular Basis of Disease Seminar                                | 1          |
| BIOM 555   | Problem-Based Research in Bioethics (may be taken in 2 <sup>nd</sup> year) | 1          |

2. During the second semester of the first year BSGP students are required to take 9 credit hours of selectives. This hour requirement remains unchanged for students pursuing the concentration. To earn a Concentration in Infectious Disease & Immunology graduate students are required to take BIOM 514 - Immunobiology. The remaining 6 credit hours will be determined based on an individualized training plan for each student from the following options.

| Course No. | Course title    | Credit hrs |
|------------|-----------------|------------|
|            | <b>REQUIRED</b> |            |
| BIOM 514   | Immunobiology   | 3          |

## Biomedical Sciences Graduate Program, Infectious Disease & Immunology Concentration

|          |                                  |   |
|----------|----------------------------------|---|
|          |                                  |   |
|          | <b>Select 2 of the following</b> |   |
| BIOM 509 | Principles of Neurobiology       | 3 |
| BIOM 510 | Physiology                       | 3 |
| BIOM 515 | Cancer Biology                   | 3 |
| BIOM 522 | Experimental Methods and Design  | 3 |

3. Following successful completion of the Qualifying Exam and remaining in Good Academic Standing (as defined by the BSGP), graduate training will mainly focus on laboratory research supervised by the student's mentor, and supplemented with the following advanced courses.

| Course No. | Course title                                                   | Credit hrs |
|------------|----------------------------------------------------------------|------------|
|            | <b>REQUIRED</b>                                                |            |
| BIOM 620   | Seminar: Molecular Genetics and Microbiology (1 hr/semester)   | 6          |
| BIOM 625   | Advanced Topics in Immunology and Microbiology (1 hr/semester) | 6          |
| BIOM 616   | Molecular Virology                                             | 3          |
|            |                                                                |            |

## **Biomedical Sciences Graduate Program, Infectious Disease & Immunology Concentration**

### **Reason for Request**

- The primary objective of the Infectious Disease & Immunology Concentration is to enhance the ability and competitiveness of BSGP PhD students to pursue careers in Infectious Disease & Immunology.
- Students graduate with a transcriptable *“Infectious Disease & Immunology Concentration”* depicting the specific training achieved under the interdisciplinary program in Biomedical Sciences.
- The Infectious Disease & Immunology Concentration helps prospective students identify key areas of research at UNM.

**Current user: cclark48 / Comments (7) / Form Transaction Log**  
**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C  
Form Number: C1697**

Fields marked with \* are required

Name of Initiator: Ziarat Hossain Email: [zhossain@unm.edu](mailto:zhossain@unm.edu) Phone Number: 505 277-4162 Date: 10-12-2015

Associated Forms exist?\* No

Initiator's Title\* Professor: Individual Family Comm Educ I

Faculty Contact\* Zia Hossain

Administrative Contact\* Cynthia Salas

Department\* Individual, Family and Community Ed

Admin Email\* [casalas@unm.edu](mailto:casalas@unm.edu)

Branch

Admin Phone\* 277-4318

Proposed effective term

Semester Fall Year 2016

**Course Information**

Select Appropriate Program\* Undergraduate Degree Program

Name of New or Existing Program\* BS Human Development &amp; Family Relations

Select Category \* Major Degree Type B.S.

Select Action Deletion

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

As part of a significant revision of the Family Studies (FS) program, we will no longer offer a major in Human Development and Family Relations (HDFR). Courses used in HDFR major will be accommodated in a revised major named Family and Child Studies (FCS) with a concentration in Human Development and Family Relations. It may be worthwhile to mention that the proposed FCS major is a revision of an existing major (Family Studies) and a separate FORM C has been submitted for FCS major.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[View Comments on this Form](#)  
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## Curriculum Workflow



[Link to Curricula Forms Process Manual](#)

### DEGREE/PROGRAM CHANGE FORM C Form Number: C1698



Fields marked with \* are required

Name of Initiator: Ziarat Hossain Email: [zhossain@unm.edu](mailto:zhossain@unm.edu) Phone Number: 505 277-4162 Date: 10-12-2015

Associated Forms exist?\*  Initiator's Title\* Professor: Individual Family Comm Educ I

Faculty Contact\* Zia Hossain

Administrative Contact\* Cynthia Salas

Department\* Individual, Family and Community Ed

Admin Email\* [casalas@unm.edu](mailto:casalas@unm.edu)

Branch

Admin Phone\* 277-4318

Proposed effective term

Semester  Year

#### Course Information

Select Appropriate Program\*

Name of New or Existing Program\* Family Studies Minor

Select Category \*  Degree Type UG

Select Action

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[FCS - Minor in FCS.doc](#)

☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.

**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

[REGISTRAR'S NOTE: THIS FORM REQUESTS NAME CHANGE AND REQUIREMENTS CHANGES TO THE EXISTING FAMILY STUDIES MINOR.] This is part of a significant revision of the Family Studies (FS) program that includes major curriculum changes to the existing BS degree. The revised BS degree will be in Child and Family Studies (FCS). In line with this change, we need to change the title of minor from Family Studies to Family and Child Studies as well as revise the curriculum for the minor in FCS. The revision will result in minimal curricular changes. FCS minors and majors for B.S. (for College of Education students) and B.A. (for College of A&S students) degrees would be able to take the same 12 credits of super core courses (FCS 105, 305, 481, 484). This change will allow FCS minors more flexibility in selecting elective courses. Furthermore, the total credits for FCS minors will be reduced from 21 to 18 credits. This change is in line with the fact that most minors in other departments are within 18 hours. See attached course curriculum for both the existing and proposed courses for FCS minors.

[FCS - Minor in FCS.doc](#)

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)

☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.

**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)

**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)

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## Family and Child Studies Program

### Minor:

### Family and Child Studies (PROPOSED)

#### Family and Child Studies Courses

#### FCS Core Curriculum 12 Credits

|         |                                                     |   |
|---------|-----------------------------------------------------|---|
| FCS 105 | Introduction to Family and Child Studies            | 3 |
| FCS 305 | Research and Evaluation in Family and Child Studies | 3 |
| FCS 481 | Families, Children and Public Policies              | 3 |
| FCS 484 | The Sociocultural Context of Children and Families  | 3 |

#### Additional Courses 6 Credits

|         |                                                        |   |
|---------|--------------------------------------------------------|---|
| FCS 202 | Introduction to Language, Literacy, & Reading          | 3 |
| FCS 203 | Infant Growth and Development                          | 3 |
| FCS 213 | Marriage and Family Relationships                      | 3 |
| FCS 217 | Curriculum Development & Implementation Age 3 to Gr. 3 | 3 |
| FCS 220 | Assessment of Children & Evaluation of Programs        | 3 |
| FCS 304 | Growth and Development in Middle Childhood             | 3 |
| FCS 310 | Friends and Intimate Relationships                     | 3 |
| FCS 312 | Parent-Child Interactions                              | 3 |
| FCS 313 | Family Theories and Contemporary Lifestyles            | 3 |
| FCS 315 | Adolescent Development in the Family                   | 3 |
| FCS 316 | Early Childhood Pedagogy & Curriculum                  | 3 |
| FCS 321 | Young Children with Diverse Abilities                  | 3 |
| FCS 341 | Ecological Aspects of Housing                          | 3 |
| FCS 343 | Family Management Theories                             | 3 |
| FCS 344 | Consumer Decisions                                     | 3 |
| FCS 395 | Field Experience                                       | 3 |
| FCS 401 | Research in Child Growth, Development and Learning     | 3 |
| FCS 403 | Growth and Development of the Preschool Child          | 3 |
| FCS 405 | Advanced Caregiving for Infants and Toddlers           | 3 |
| FCS 411 | Marriage and Family Life Education                     | 3 |
| FCS 412 | Fathering                                              | 3 |
| FCS 416 | Adult Development in the Family                        | 3 |
| FCS 443 | Application of Family Management Theories              | 3 |

#### Total FCS Required Hours 18 Credits





## FAMILY STUDIES

### Minor: Family Studies (EXISTING)

#### Family Studies Courses

|                                                      |                   |
|------------------------------------------------------|-------------------|
| <b>Family Studies Core Curriculum</b>                | <b>12 Credits</b> |
| FS 213 Marriage and Family Relationships             | 3                 |
| FS 312 Parent-Child Interactions                     | 3                 |
| FS 343 Family Management Theories                    | 3                 |
| FS 484 Ethnic Minority Families                      | 3                 |
| <b>Human Development and Family Relations</b>        | <b>3 Credits</b>  |
| FS 202 Infant Growth and Development                 | 3                 |
| FS 207L Infant Lab                                   | 1                 |
| FS 310 Friends and Intimate Relationships            | 3                 |
| FS 313 Family Theories and Contemporary Lifestyles   | 3                 |
| FS 315 Adolescent Development in the Family          | 3                 |
| FS 403 Growth and Development of the Preschool Child | 3                 |
| FS 407L Preschool Child Lab                          | 1                 |
| FS 411 Marriage and Family Life Education            | 3                 |
| FS 412 Fathering                                     | 3                 |
| FS 415 Aging and the Family                          | 3                 |
| FS 416 Adult Development in the Family               | 3                 |
| <b>Family Recourse Management</b>                    | <b>6 Credits</b>  |
| FS 341 Ecological Aspects of Housing                 | 3                 |
| FS 344 Consumer Decisions                            | 3                 |
| FS 443 Application of Family Management Theories     | 3                 |
| FS 444 Family Finance                                | 3                 |
| <b>Total Required Hours</b>                          | <b>21 Credits</b> |

Updated on August 2008

Current user: cclark48 / **Comments (9)** / Form Transaction Log

## Curriculum Workflow



[Link to Curricula Forms Process Manual](#)

### DEGREE/PROGRAM CHANGE FORM C Form Number: C1699



Fields marked with \* are required

Name of Initiator: Ziarat Hossain Email: [zhossain@unm.edu](mailto:zhossain@unm.edu) Phone Number: 505 277-4162 Date: 10-12-2015

Associated Forms exist?\*  Initiator's Title\* Professor: Individual Family Comm Educ I

Faculty Contact\* Zia Hossain

Administrative Contact\* Cynthia Salas

Department\* Individual, Family and Community Ed

Admin Email\* [casalas@unm.edu](mailto:casalas@unm.edu)

Branch

Admin Phone\* 277-4318

Proposed effective term

Semester  Year

#### Course Information

Select Appropriate Program\*

Name of New or Existing Program\* BS Family and Child Studies - Human Development & Family Relations Concentration

Select Category\*  Degree Type B.S.

Select Action

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[Curriculum.docx](#)

[4 Year Degree Plan FCS-BS HDFR Concentration.docx](#)

☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.

**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

The Department of Individual, Family and Community Education proposes a significant revision of its existing Family Studies Program and deletion of the Early Childhood and Multicultural Education program. This step will merge FS and ECME programs and the merger will result in a revised program named Family and Child Studies. In fact, the revision of the FS B.S. degree to the FCS B.S. degree will result in three concentrations as follows: a) Human Development and Family Relations (HDFR, 120 credits) b) Early Childhood Education and Development (ECED, 120 credits) c) Early Childhood Multicultural Education Licensure (ECMEL, 121 credits), Pre-K to Grade 3 The establishment of the FCS Program will also involve eliminating another degree program (Human Development and Family Relations, HDFR) that currently exists under the FS Program. Under FCS, HDFR will become one of the three proposed concentrations. The current Form C requests the establishment of Human Development and Family Relations (HDFR) concentration. Two other Form C will be submitted for Early Childhood Education and Development (ECED), and Early Childhood Multicultural Education Licensure - ECMEL, Pre-K to Grade 3 concentrations. The revision effectively revises and more efficiently organizes existing programs of study in three separate Bachelor degree pathways (ECME, FS, & HDFR). This revision allows us to offer discipline specific concentrations and guide FCS students toward either non-licensure or licensure track. With this revision, the University of New Mexico will offer a state of the art, high-quality, and rigorous undergraduate degree program for individuals seeking license for Pre-K to Grade 3 that includes deep knowledge in early childhood education, child development, and family well-being. The faculty load and budgetary impact are minimal as we are using the existing courses to design the HDFR concentration. For details, see Executive Summary of the merger.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)

[FCS Undergraduate 10.15.15 Executive Summary.docx](#)

☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.

**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)

**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)

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Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001

## **Major: Family and Child Studies (B.S.)**

### **Curriculum for HDFR Concentration (49 credits) – PROPOSED**

#### **FCS Core (12 credits)**

|                                                             |   |
|-------------------------------------------------------------|---|
| FCS 105 Introduction of Family and Child Studies            | 3 |
| FCS 305 Research and Evaluation in Family and Child Studies | 3 |
| FCS 481 Families, Children and Public Policies              | 3 |
| FCS 484 The Sociocultural Context of Children and Families  | 3 |

#### **HDFR Concentration Core (13 credits)**

|                                                       |   |
|-------------------------------------------------------|---|
| FCS 213 Marriage and Family Relationships             | 3 |
| FCS 312 Parent-Child Interactions                     | 3 |
| FCS 395 Field Experience                              | 3 |
| FCS 403 Growth and Development of the Preschool Child | 3 |
| FCS 407L Preschool Child Lab                          | 1 |

#### **Family Relations (9 credits)**

|                                            |   |
|--------------------------------------------|---|
| FCS 310 Friends and Intimate Relationships | 3 |
| FCS 313 Family Theories                    | 3 |
| FCS 411 Marriage and Family Life Education | 3 |
| FCS 412 Fathering                          | 3 |

#### **Human Development (9 credits)**

|                                                    |   |
|----------------------------------------------------|---|
| FCS 203 Infant Growth and Development              | 3 |
| FCS 304 Growth and Development in Middle Childhood | 3 |
| FCS 315 Adolescent Development in the Family       | 3 |
| FCS 416 Adult Development in the Family            | 3 |

#### **Family Resource Management (6 credits)**

|                                                   |   |
|---------------------------------------------------|---|
| FCS 341 Ecological Aspects of Housing             | 3 |
| FCS 343 Family Management Theories                | 3 |
| FCS 344 Consumer Decisions                        | 3 |
| FCS 443 Application of Family Management Theories | 3 |

Students pursuing HDFR concentration must take FCS 403 and FCS 407L concurrently. Also, 67 FCS credits are required to major in FCS (HDFR concentration) without a minor. Upon program approval, students may count up to 6 hours of FCS 391 towards program requirements.

## General Education Requirements (40 credits) for HDFR Concentration – PROPOSED

### AREA 1: Writing and Speaking – 9 credit hours

ENGL 110 OR ENGL 111/112 OR 113      AND ENGL 120

Choose 1 additional course from the following: ENGL 219, ENGL 220, CJ 130, PHIL 156, UHON 201

### AREA 2: Mathematics – 3 credit hours

STAT 145

### AREA 3: Physical and Natural Sciences – 7 credit hours

BIO 110/112L OR BIO 123/124L AND choose 1 additional course from the following:

|                                                        |                                                    |                                                |
|--------------------------------------------------------|----------------------------------------------------|------------------------------------------------|
| <b>ANTH 120:</b> Arch. Method & Theory                 | <b>CHEM 101:</b> Chemistry in Our Community        | <b>PHYC 102:</b> Introduction to Physics       |
| <b>ANTH 122L:</b> Req. Lab for ANTH 120 (1cr)<br>(1cr) | <b>CHEM 111L:</b> Elem of General Chemistry (4cr)  | <b>PHYC 102L:</b> Opt. Lab for PHYC 102        |
| <b>Pre-Spring 2013 ANTH 121L:</b> Arch. M&T(4cr)       | <b>CHEM 121:</b> General Chemistry I               | <b>PHYC 105:</b> Physics and Society           |
| <b>ANTH 150:</b> Evol & Human Emergence                | <b>CHEM 123L:</b> Req. Lab for Chem 121 (1cr)      | <b>PHYC 151:</b> General Physics               |
| <b>ANTH 151L:</b> Opt. Lab for ANTH 150 (1cr)          | <b>CHEM 122:</b> General Chemistry II              | <b>PHYC 151L:</b> Opt. Lab for PHYC 151 (1cr)  |
| <b>ANTH 160:</b> Human Life Course                     | <b>CHEM 124L:</b> Req. Lab for Chem 122 (1cr)      | <b>PHYC 152:</b> General Physics               |
| <b>ANTH 161L:</b> Opt. Lab for ANTH 160 (1cr)          | <b>CHEM 131L:</b> (Honors) Gen. Chemistry I (4cr)  | <b>PHYC 152L:</b> Opt Lab for PHYC 152 (1cr)   |
| <b>ASTR 101:</b> Intro to Astronomy                    | <b>CHEM 132L:</b> (Honors) Gen. Chemistry II (4cr) | <b>PHYC 160:</b> General Physics               |
| <b>ASTR 101L:</b> Opt. Lab for ASTR 101 (1cr)          | <b>EPS 101:</b> Intro to Geology                   | <b>PHYC 160L:</b> Opt. Lab for PHYC 160 (1cr)  |
| <b>BIOL 110:</b> Biology for Non-Majors                | <b>EPS 105L:</b> Opt. Lab for EPS 101 (1cr)        | <b>PHYC 161:</b> General Physics               |
| <b>BIOL 112:</b> Opt. Lab for BIOL 110 (1cr)           | <b>EPS 201L:</b> Earth History (4cr)               | <b>PHYC 161L:</b> Opt. Lab for PHYC 161 (1cr)  |
|                                                        | <b>ENVS 101:</b> The Blue Planet                   | <b>*NTSC 261L:</b> Physical Science (4cr)      |
|                                                        | <b>ENVS 102L:</b> Opt. Lab for ENVS 101            | <b>*NTSC 262L:</b> Life Science (4cr)          |
|                                                        | <b>GEOG 101:</b> Physical Geography                | <b>*NTSC 263L:</b> Environmental Science (4cr) |
|                                                        | <b>GEOG 105L:</b> Opt. Lab for GEOG 101 (1cr)      | <b>UHON 203:</b> Science in the 21st Century   |

### AREA 4: Social and Behavioral Sciences – 6 credit hours. Choose 2 courses from the following:

|                                                                                                 |                                                 |                                          |
|-------------------------------------------------------------------------------------------------|-------------------------------------------------|------------------------------------------|
| <b>AFTS / CCS / NATV / SUST / WMST 109:</b><br>Intro to Comparative and Global Ethnic Societies | <b>ECON 105:</b> Intro to Macroeconomics        | <b>POLS 110:</b> The Political World     |
| <b>AMST 182:</b> Intro to Env. Sci. & Technology                                                | <b>ECON 106:</b> Intro to Microeconomics        | <b>POLS 200:</b> American Politics       |
| <b>AMST 185:</b> Race, Class & Ethnicity                                                        | <b>CRP 181:</b> Intro to Environmental Problems | <b>POLS 220:</b> Comparative Politics    |
| <b>ANTH 101:</b> Intro to Anthropology                                                          | <b>ENGF 200:</b> Technology in Society          | <b>POLS 240:</b> International Politics  |
| <b>ANTH 130:</b> Cultures of the World                                                          | <b>GEOG 102:</b> Human Geography                | <b>SOC 101:</b> Intro to Sociology       |
| <b>PSY 105:</b> General Psychology                                                              | <b>LING 101:</b> Intro to Linguistics           | <b>UHON 204:</b> Individual & Collective |

### AREA 5: Humanities – 6 credit hours: Choose 2 courses from the following

|                                                       |                                                     |                                                  |
|-------------------------------------------------------|-----------------------------------------------------|--------------------------------------------------|
| <b>AFST 104:</b> Intro to Africana Studies<br>Studies | <b>ENGL 150:</b> Study of Literature                | <b>NATV 150:</b> Intro to Native American        |
| <b>AMST 186:</b> Intro to Southwest Studies           | <b>ENGL 292/293:</b> World Literatures              | <b>PHIL 101:</b> Intro to Philosophical Problems |
| <b>CCS 201:</b> Intro to Chicana & Chicano Studies    | <b>GEOG 140:</b> World Regional Geography           | <b>PHIL 201:</b> Greek Thought                   |
| <b>CLST 107:</b> Greek Mythology                      | <b>HIST 101/L:</b> Western Civilization (to 1648)   | <b>PHIL 202:</b> From Descartes to Kant          |
| <b>CLST 204:</b> Greek Civilization                   | <b>HIST 102/L:</b> Western Civilization (from 1648) | <b>RELG 107:</b> Living World Religions          |
| <b>CLST 205:</b> Roman Civilization                   | <b>HIST 161/L:</b> History of the US to 1877        | <b>RELG 263:</b> Eastern Religions               |
| <b>CLCS 223/224:</b> Literary Questions               | <b>HIST 162:</b> History of the US since 1877       | <b>RELG 264:</b> Western Religions               |
| <b>COMP 222:</b> Fairy and Folk Tales                 | <b>HIST 181:</b> History of Early Latin America     | <b>UHON - Honors Legacy Sem, 100-200 level</b>   |
| <b>COMP 224:</b> Literary Questions                   | <b>HIST 182:</b> Modern Latin American History      | <b>UHON 205:</b> Humanities Society & Culture    |
| <b>MLNG 101:</b> Languages                            |                                                     |                                                  |

### AREA 6: Foreign Language – 3 credit hours

One course chosen from any lower-division non-English language offerings from the Dept. of Linguistics (including Sign Language), Spanish and Portuguese, Foreign Languages and Literatures, and foreign languages in other depts. and programs (except Latin 105).

**AREA 7: Fine Arts – 3 credit hours required. Choose 1 course from the following:**

**ARCH 121:** Intro to Architecture

**DANC 105:** Dance Appreciation

**THEA 105:** Intro to Theatre Appreciation

**Pre-Fall 2010 Arch 101:** Intro to Architecture  
Appreciation

**FA 284:** Experiencing the Arts

**Pre-Fall 2010 THEA 122:** Theatre

**ARTH 101:** Intro to Art  
Perspective

**MA 210:** Intro to Film and Study

**UHON 207:** Fine Art as Global

**ARTH 201:** History of Art 1

**MUS 139:** Music Appreciation

**ARTH 202:** History of Art 2

**MUS 142:** Rock Music Appreciation

Any 3 credit hour studio or performance course offered by the Department of Art and Art History, Music, Theatre and Dance, Media Arts or IFDM.

**Additional Requirement - 3 credits hours**

NUTR 120 OR 224

In addition, the student must complete unrestricted electives for a minimum total of 120 credit hours. Consult the program faculty for specific courses. The student must complete 40 hours above 300. Grades of C or better are required in all General Education and Family and Child Studies courses used to meet the HDFR requirement.

## **Major: Family and Child Studies (B.S.)**

### **Curriculum for HDFR Concentration (49 credits) – PROPOSED**

#### **FCS Core (12 credits)**

|                                                             |   |
|-------------------------------------------------------------|---|
| FCS 105 Introduction of Family and Child Studies            | 3 |
| FCS 305 Research and Evaluation in Family and Child Studies | 3 |
| FCS 481 Families, Children and Public Policies              | 3 |
| FCS 484 The Sociocultural Context of Children and Families  | 3 |

#### **HDFR Concentration Core (13 credits)**

|                                                       |   |
|-------------------------------------------------------|---|
| FCS 213 Marriage and Family Relationships             | 3 |
| FCS 312 Parent-Child Interactions                     | 3 |
| FCS 395 Field Experience                              | 3 |
| FCS 403 Growth and Development of the Preschool Child | 3 |
| FCS 407L Preschool Child Lab                          | 1 |

#### **Family Relations (9 credits)**

|                                            |   |
|--------------------------------------------|---|
| FCS 310 Friends and Intimate Relationships | 3 |
| FCS 313 Family Theories                    | 3 |
| FCS 411 Marriage and Family Life Education | 3 |
| FCS 412 Fathering                          | 3 |

#### **Human Development (9 credits)**

|                                                    |   |
|----------------------------------------------------|---|
| FCS 203 Infant Growth and Development              | 3 |
| FCS 304 Growth and Development in Middle Childhood | 3 |
| FCS 315 Adolescent Development in the Family       | 3 |
| FCS 416 Adult Development in the Family            | 3 |

#### **Family Resource Management (6 credits)**

|                                                   |   |
|---------------------------------------------------|---|
| FCS 341 Ecological Aspects of Housing             | 3 |
| FCS 343 Family Management Theories                | 3 |
| FCS 344 Consumer Decisions                        | 3 |
| FCS 443 Application of Family Management Theories | 3 |

Students pursuing HDFR concentration must take FCS 403 and FCS 407L concurrently. Also, 67 FCS credits are required to major in FCS (HDFR concentration) without a minor. Upon program approval, students may count up to 6 hours of FCS 391 towards program requirements.

## General Education Requirements (40 credits) for HDFR Concentration – PROPOSED

### AREA 1: Writing and Speaking – 9 credit hours

ENGL 110 OR ENGL 111/112 OR 113      AND ENGL 120

Choose 1 additional course from the following: ENGL 219, ENGL 220, CJ 130, PHIL 156, UHON 201

### AREA 2: Mathematics – 3 credit hours

STAT 145

### AREA 3: Physical and Natural Sciences – 7 credit hours

BIO 110/112L OR BIO 123/124L AND choose 1 additional course from the following:

|                                                        |                                                    |                                                |
|--------------------------------------------------------|----------------------------------------------------|------------------------------------------------|
| <b>ANTH 120:</b> Arch. Method & Theory                 | <b>CHEM 101:</b> Chemistry in Our Community        | <b>PHYC 102:</b> Introduction to Physics       |
| <b>ANTH 122L:</b> Req. Lab for ANTH 120 (1cr)<br>(1cr) | <b>CHEM 111L:</b> Elem of General Chemistry (4cr)  | <b>PHYC 102L:</b> Opt. Lab for PHYC 102        |
| <b>Pre-Spring 2013 ANTH 121L:</b> Arch. M&T(4cr)       | <b>CHEM 121:</b> General Chemistry I               | <b>PHYC 105:</b> Physics and Society           |
| <b>ANTH 150:</b> Evol & Human Emergence                | <b>CHEM 123L:</b> Req. Lab for Chem 121 (1cr)      | <b>PHYC 151:</b> General Physics               |
| <b>ANTH 151L:</b> Opt. Lab for ANTH 150 (1cr)          | <b>CHEM 122:</b> General Chemistry II              | <b>PHYC 151L:</b> Opt. Lab for PHYC 151 (1cr)  |
| <b>ANTH 160:</b> Human Life Course                     | <b>CHEM 124L:</b> Req. Lab for Chem 122 (1cr)      | <b>PHYC 152:</b> General Physics               |
| <b>ANTH 161L:</b> Opt. Lab for ANTH 160 (1cr)          | <b>CHEM 131L:</b> (Honors) Gen. Chemistry I (4cr)  | <b>PHYC 152L:</b> Opt Lab for PHYC 152 (1cr)   |
| <b>ASTR 101:</b> Intro to Astronomy                    | <b>CHEM 132L:</b> (Honors) Gen. Chemistry II (4cr) | <b>PHYC 160:</b> General Physics               |
| <b>ASTR 101L:</b> Opt. Lab for ASTR 101 (1cr)          | <b>EPS 101:</b> Intro to Geology                   | <b>PHYC 160L:</b> Opt. Lab for PHYC 160 (1cr)  |
| <b>BIOL 110:</b> Biology for Non-Majors                | <b>EPS 105L:</b> Opt. Lab for EPS 101 (1cr)        | <b>PHYC 161:</b> General Physics               |
| <b>BIOL 112:</b> Opt. Lab for BIOL 110 (1cr)           | <b>EPS 201L:</b> Earth History (4cr)               | <b>PHYC 161L:</b> Opt. Lab for PHYC 161 (1cr)  |
|                                                        | <b>ENVS 101:</b> The Blue Planet                   | <b>*NTSC 261L:</b> Physical Science (4cr)      |
|                                                        | <b>ENVS 102L:</b> Opt. Lab for ENVS 101            | <b>*NTSC 262L:</b> Life Science (4cr)          |
|                                                        | <b>GEOG 101:</b> Physical Geography                | <b>*NTSC 263L:</b> Environmental Science (4cr) |
|                                                        | <b>GEOG 105L:</b> Opt. Lab for GEOG 101 (1cr)      | <b>UHON 203:</b> Science in the 21st Century   |

### AREA 4: Social and Behavioral Sciences – 6 credit hours. Choose 2 courses from the following:

|                                                                                                 |                                                 |                                          |
|-------------------------------------------------------------------------------------------------|-------------------------------------------------|------------------------------------------|
| <b>AFTS / CCS / NATV / SUST / WMST 109:</b><br>Intro to Comparative and Global Ethnic Societies | <b>ECON 105:</b> Intro to Macroeconomics        | <b>POLS 110:</b> The Political World     |
| <b>AMST 182:</b> Intro to Env. Sci. & Technology                                                | <b>ECON 106:</b> Intro to Microeconomics        | <b>POLS 200:</b> American Politics       |
| <b>AMST 185:</b> Race, Class & Ethnicity                                                        | <b>CRP 181:</b> Intro to Environmental Problems | <b>POLS 220:</b> Comparative Politics    |
| <b>ANTH 101:</b> Intro to Anthropology                                                          | <b>ENGF 200:</b> Technology in Society          | <b>POLS 240:</b> International Politics  |
| <b>ANTH 130:</b> Cultures of the World                                                          | <b>GEOG 102:</b> Human Geography                | <b>SOC 101:</b> Intro to Sociology       |
| <b>PSY 105:</b> General Psychology                                                              | <b>LING 101:</b> Intro to Linguistics           | <b>UHON 204:</b> Individual & Collective |

### AREA 5: Humanities – 6 credit hours: Choose 2 courses from the following

|                                                       |                                                     |                                                  |
|-------------------------------------------------------|-----------------------------------------------------|--------------------------------------------------|
| <b>AFST 104:</b> Intro to Africana Studies<br>Studies | <b>ENGL 150:</b> Study of Literature                | <b>NATV 150:</b> Intro to Native American        |
| <b>AMST 186:</b> Intro to Southwest Studies           | <b>ENGL 292/293:</b> World Literatures              | <b>PHIL 101:</b> Intro to Philosophical Problems |
| <b>CCS 201:</b> Intro to Chicana & Chicano Studies    | <b>GEOG 140:</b> World Regional Geography           | <b>PHIL 201:</b> Greek Thought                   |
| <b>CLST 107:</b> Greek Mythology                      | <b>HIST 101/L:</b> Western Civilization (to 1648)   | <b>PHIL 202:</b> From Descartes to Kant          |
| <b>CLST 204:</b> Greek Civilization                   | <b>HIST 102/L:</b> Western Civilization (from 1648) | <b>RELG 107:</b> Living World Religions          |
| <b>CLST 205:</b> Roman Civilization                   | <b>HIST 161/L:</b> History of the US to 1877        | <b>RELG 263:</b> Eastern Religions               |
| <b>CLCS 223/224:</b> Literary Questions               | <b>HIST 162:</b> History of the US since 1877       | <b>RELG 264:</b> Western Religions               |
| <b>COMP 222:</b> Fairy and Folk Tales                 | <b>HIST 181:</b> History of Early Latin America     | <b>UHON - Honors Legacy Sem, 100-200 level</b>   |
| <b>COMP 224:</b> Literary Questions                   | <b>HIST 182:</b> Modern Latin American History      | <b>UHON 205:</b> Humanities Society & Culture    |
| <b>MLNG 101:</b> Languages                            |                                                     |                                                  |

### AREA 6: Foreign Language – 3 credit hours

One course chosen from any lower-division non-English language offerings from the Dept. of Linguistics (including Sign Language), Spanish and Portuguese, Foreign Languages and Literatures, and foreign languages in other depts. and programs (except Latin 105).



**AREA 7: Fine Arts – 3 credit hours required. Choose 1 course from the following:**

**ARCH 121:** Intro to Architecture

**DANC 105:** Dance Appreciation

**THEA 105:** Intro to Theatre Appreciation

**Pre-Fall 2010 Arch 101:** Intro to Architecture  
Appreciation

**FA 284:** Experiencing the Arts

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**ARTH 202:** History of Art 2

**MUS 142:** Rock Music Appreciation

Any 3 credit hour studio or performance course offered by the Department of Art and Art History, Music, Theatre and Dance, Media Arts or IFDM.

**Additional Requirement - 3 credits hours**

NUTR 120 OR 224

In addition, the student must complete unrestricted electives for a minimum total of 120 credit hours. Consult the program faculty for specific courses. The student must complete 40 hours above 300. Grades of C or better are required in all General Education and Family and Child Studies courses used to meet the HDFR requirement.

## EXECUTIVE SUMMARY

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### Revision of the Family Studies (FS) and the Early Childhood and Multicultural Education (ECME) Programs

&

### Proposed Family & Child Studies (FCS) Program

### Merger & Changes in the Undergraduate FS and ECME,

Department of Individual, Family & Community Education

College of Education

University of New Mexico

## Summary of the Revision and Merger

| Existing Programs                                     | Proposed (Effective Fall 2016)                                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| B. S. in FS<br>(128 credits)                          | Revise to B. S. in FCS with 3 concentrations: <ul style="list-style-type: none"> <li>- Human Development and Family Relations (120 credits)</li> <li>- Early Childhood Education &amp; Development (120 credits)</li> <li>- Early Childhood Multicultural Education Licensure, Pre-K to Grade 3 (121 credits)</li> </ul> |
| B. S. in Human Development and Family Relation (HDFR) | Delete                                                                                                                                                                                                                                                                                                                   |
| B. S. in ECME                                         | Delete                                                                                                                                                                                                                                                                                                                   |
| B. A. in FS (A&S students)                            | B. A. in FCS (A&S students)                                                                                                                                                                                                                                                                                              |
| Minor in FS (21 credits)                              | Revise to minor in FCS (18 credits)                                                                                                                                                                                                                                                                                      |
| Minor in HDFR                                         | Delete                                                                                                                                                                                                                                                                                                                   |

## **Vision of the Family & Child Studies Program**

*Enhancing the lives of children and families through inter-related theory, research, and practice that address the diverse and complex nature of their futures.*

## **Mission of the Family & Child Studies Program**

*Our mission is to foster an interdisciplinary scholarly environment that enables early childhood professionals, family service providers, and researchers in the field of family and child study to*

- *cultivate and disseminate systematic information and grounded knowledge about the diverse nature of families in contemporary societies*
- *understand and critically respond to the dynamic complexities of human development across the lifespan*
- *foster leadership in addressing the multiple facets of early childhood development*

## **Introduction**

The Family & Child Studies Program (FCS) is targeted to begin Fall 2016 as the culmination of an intensive, 4-year review and revision of two existing programs in the Department of Individual, Family and Community Education (IFCE). These programs are:

Family Studies (FS); and

Early Childhood Multicultural Education (ECME)

The establishment of the FCS Program will also involve eliminating another degree program (Human Development and Family Relations – HDFR) that currently exists under the FS Program.

Family Studies currently offers Bachelor's, Master's and Doctoral degrees, and both the HDFR and ECME Programs offer the Bachelor of Science degree. The reimagination and consolidation of these degree programs are the basis for the comprehensive revision of the degree requirements for the proposed FCS degree offerings. More generally, the proposed FCS program is grounded in a firm commitment to (a) emphasize research productivity on the part of its faculty and both undergraduate and graduate students, (b) strengthen its academic offerings at all degree levels, and (c) provide excellent mentoring of its graduate and doctoral students aimed at developing leaders and quality researchers in the field.

As noted above, the proposed FCS program is the outcome of a comprehensive review of the Family Studies, Human Development and Family Relations, and Early Childhood Multicultural Education programs at the Bachelor level, and the Family Studies program at the Master and Doctoral levels. The proposed changes are therefore not aimed at creating any new degree programs but, rather, revisions of the existing Bachelor of Science, Bachelor of Arts, Master of Arts and Doctor of Philosophy degrees in Family Studies. In line with the proposed merger, a

Form C will be submitted to delete both the ECME and HDFR Bachelor of Science degrees. The revision of the FS – B.S. degree to the FCS – B.S. degree will result in three concentrations as follows:

- a) Human Development and Family Relations (HDFR – 120 credits)
- b) Early Childhood Education and Development (ECED – 120 credits)
- c) Early Childhood Multicultural Education Licensure (ECMEL – 121 credits), Pre-K to Grade 3

The changes will result in a revised subject code (FCS) for all courses offered in the merged program and the FS and ECME subject code will expire for courses offered on main campus.

### **Reasons for Request**

FS and ECME faculty have shared academic interests that focus on families, children, and communities. The complementarity of such interests and expertise will be significantly enhanced by the proposed merger. In addition, the merger will help us pool resources to effectively address both faculty and student involvement in academic processes and products. We envision that such a consolidation will improve the quality of our teaching, research, advisement, and other professional contributions and services. As a key corollary, students will be a part of a vibrant, innovative program and will experience a well-supported academic and learning environment.

As already indicated, the Form C to revise the existing Family Studies Bachelor of Science degree is part of a deliberative process to merge two existing programs, Early Childhood Multicultural Education and Family Studies, in the Department of Individual, Family, and Community Education in the College of Education. As part of this process, the existing ECME Bachelor of Science degree and the existing HDFR Bachelor of Science degrees will be deleted. Minors in the Family Studies and Human Development and Family Relations will also be deleted, resulting in a revised minor in Family and Child Studies (FCS). The current Form C will include three concentrations (Human Development and Family Relations – HDFR, Early Childhood Education and Development – ECED, and Early Childhood Multicultural Education Licensure - ECMEL, Pre-K to Grade 3) that effectively revise and more efficiently organize existing programs of study in three separate Bachelor degree pathways (ECME, FS, & HDFR). It may be important to note that if all gets approved, the University of New Mexico will offer a state of the art, high-quality, and rigorous undergraduate degree program for individuals seeking license for Pre-K to Grade 3 that includes deep knowledge in early childhood education, child development, and family well-being.

### **Justification of the Merged FCS Program**

The Early Childhood Multicultural Education Program and the Family Studies Program faculty believe that the proposed merger is an appropriate evolution of programs that have been closely linked since the creation of the ECME program at UNM following the adoption of the Birth to Grade Three Teaching License by the then New Mexico State Board of Education in 1993. Three UNM faculty members from Family Studies were part of the original group that developed the licensure competencies and developed the proposal for the new ECME degree program at UNM. That program began admitting students in 1996. From 1996 to 1999 Family Studies faculty taught courses in ECME; since 1999, at least three Family Studies courses have

been taught each academic year by ECME faculty. And in the past three years, ECME faculty members have taught at least five Family Studies courses each academic year.

The original plan for ECME included five-tenure/tenure track faculty. However, this plan was never realized. From 1998 to 2000 the ECME program had 4.5-tenure/tenure track faculty. From 2000 to 2007 the ECME program operated with only 2.5 faculty. Similarly, the Family Studies program experienced significant attrition of its faculty from 1998 to 2015, decreasing from nine tenure/tenure track faculty members to only two. Given this history, a primary reason for the merger proposal is the need to create a future-oriented program with a critical mass of faculty able to sustain both quality and expansion to meet the needs of its students and to contribute meaningfully to the field of Family & Child Studies. Especially in light of the economic challenges affecting higher education, it seems clear that two programs in the College of Education, functioning separately and with only five full-time tenure-track faculty total (two FS and three ECME), would not be able to sustain quality and growth. In addition, the colleagues in Family Studies and ECME see such a merger as exactly the type of redesign and interdisciplinary initiative that the university is encouraging to respond effectively to the need for excellence in programs and creativity that reflects trends in a range of fields. More specifically, the faculty colleagues have agreed that merging the two programs would enable them to address more effectively the critical need for preparing professionals for positions of leadership in New Mexico in the context of programs and services for young children, their families, and the wider community.

Several important reasons factored into the re-design of our proposed bachelor of science degree program that includes a new early childhood teacher preparation pathway leading to state license.

First, July 2014 witnessed the state's adoption of two new early childhood licenses that replaced the original Birth to Grade 3 License. The "Birth to Pre K" and "Pre K to Grade Three" licenses. The state adopted a "non-licensure" Birth to PreK option for early childhood professionals who require a degree in early childhood but not a state license (e. g., Head Start personnel).

Second, the Early Childhood Teacher Preparation pathway in New Mexico includes a complete Associate of Arts degree program requiring 35 general education credits and 29 professional courses that are offered at almost every community college and branch campus in New Mexico. Unlike other teacher educator programs in New Mexico, Early Childhood Educator programs are under a statewide full articulation agreement that requires UNM to accept 11 of the 20 required professional courses for licensure taken at any of the other colleges in New Mexico.

Third, since 2002, the state has adopted a "universal curriculum" in early childhood which mandates that all courses for Associate and Bachelor level degrees have identical course titles, course descriptions, and course competencies, a comprehensive review of all Associate degree programs in the state revealed a wide range of quality in Associate of Arts Early Childhood programs across our state.

Fourth, we are concerned that our ability to be accountable for the quality of our program and the competency level of our graduates would be compromised by the fact that students could transfer in 86 of the 135 credits required courses from other institutions under state articulation and our own university rules.

Fifth, our governor signed into law Senate Bill 329 in April of this year. This act amends the school personnel act by reducing the general education requirements for teachers in New Mexico. In response to SB 329, our college established a Curriculum Consensus Committee to approve modifications to existing teacher preparation degree programs and to enhance our teacher preparation programs with additional course work aimed at cultural responsiveness, classroom assessment, bilingual education, and special education.

Sixth, in 2014 the provost's office encouraged undergraduate degree programs to develop 120 credit degree plans in order to align with national trends that also would address the increasing cost of higher education, and graduation rates.

To these ends, the FCS program is proposing three concentrations that address these six issues. The revised Bachelor of Science degree will offer two 120-credit concentrations and one 121-credit concentration that leads to PreK to Grade 3 New Mexico teaching license. Taken together, HDFS, ECED, and ECME Pre-K to Grade 3 concentrations will afford students with opportunities to develop deep understandings of children's growth, development and learning, family health and well-being as well as acquiring deep knowledge of the important ways in which family relationships, socialization, and community engagement factor into children's readiness for succeeding in school.

The proposed revision will offer a high-quality, state of the art program that responds to the Provost Office's of increasing graduation and reducing total number of credits in undergraduate programs offered at UNM. In the revised FCS program, the total number of credits required in two non-license concentrations of the bachelor level degree program will be 120 credits (i. e., a reduction from 135 to 120 credits) and the Pre-K to Grade 3 license pathway will be 121 credits. In addition, the proposed revision modifies and updates existing courses from both Family Studies and ECME and also includes new courses from within the College of Education in preparing teachers for the PreK to Grade 3 teaching license.

The FCS faculty strongly believe the re-designed early childhood teacher preparation concentration and the proposed non-licensure early childhood education and development concentration address shortcomings of the current undergraduate teacher preparation method in New Mexico that has heretofore focused primarily on transferability from community colleges and focus on state certification. The original Early Childhood licensure model in NM was designed prior to the adoption of the three-tier teacher licensing system in New Mexico, and the significant growth of diversity of early childhood positions in New Mexico that require higher education but not state certification. Our new design assures quality, cost efficiency, and comprehensiveness in early childhood teacher preparation, and in preparing professionals to work in a variety of positions that serve young children, families, and communities.

### **Impact of Long-Range Planning**

The faculty who would comprise the proposed Family and Child Studies program have completed a comprehensive curriculum review and have created a 2-year schedule of undergraduate course offerings. (See **Appendix 1** for the Bachelor level schedule.) The proposed changes will allow the Department of Individual, Family, and Community Education (IFCE) to *reduce* its scheduling load because the merger of the two existing programs will include:

- Consolidating eight existing FS and ECME courses into four FCS courses.

- Scheduling fewer ITV courses (given that most of the courses in two FCS degree concentrations will only be offered on main campus).
- More efficient use of Teaching Assistants and Part Time Instructors.
- Relying on Special Education faculty to teach FCS 321. (Their expertise is specific to this course; see Appendix 2.)

In view of student graduation, curricular importance, admission to the program requirements, and increasing enrollment in our undergraduate courses, the FCS program will also need to make these changes:

- We will increase the frequency of offering one course (FCS 105: Introduction to Family and Child Studies). Although this is a core course and students are required to complete this course before being admitted into the program, it is currently taught only once a year and therefore delays student admission into the program and subsequent graduation.
- We will offer a new freshmen level course (FCS 102: Carpe Noctem: Sleep, Health & Family) once a year. A second course, 104: Children's Motivational Development, will also be developed. Although these are elective courses, they will serve as recruitment/feeder for FCS majors. In addition, based on faculty research interest and expertise, these offerings will help faculty strengthen the links between their research and undergraduate teaching. As important, students will be offered an intellectual forum for developing specific research interests in family and child studies early in their academic life.
- We will reduce the frequency of offering licensure courses to once a year instead of our offering all courses both fall and spring. Stringent advising through student advisors and program faculty utilizing detailed paper and web-based resources will be implemented to ensure students stay on track to graduate in a timely manner.

These changes will increase our ability to offer all courses in all concentrations and, therefore, in addition reducing total required credits to 120/121, we effectively minimize time-to-graduation for all undergraduate students in our program.

Faculty strength is obviously a key component of any program revision or merger. The current faculty composition of five tenure-track faculty and one lecturer with a search presently underway for a sixth tenure-track faculty member is sufficient to staff this merged program with one exception. The Family Studies Program currently holds a provisional accreditation from the National Council on Family Relations to offer the Certified Family Life Educator credential at the bachelor's level. The provision exists because no current faculty are themselves certified. Furthermore, the program currently has qualified part-time instructors but not full-time faculty to teach several of the courses related to consumer sciences. FLE certification is a preferred qualification in the current ongoing search, and adding faculty expertise in consumer sciences will be an important priority in the next few years.

### **Detailed Budget Analysis**

In order to determine the budgetary implications and the broader resource needs of this revised undergraduate curriculum, we first articulated the current faculty expertise relative to the proposed curriculum (Table 1). Then we determined the preferred qualifications for instructors for each course (Table 1). We used these two analyses to construct a two-year staffing projection. From these analyses, we were able to determine what the staffing needs for this program will likely be (Table 2).



Table 1 demonstrates that the current faculty expertise maps onto the proposed curriculum with two exceptions (marked with red shade in the table). The first, as was described in the previous section, is the lack of expertise with consumer science courses. The second is the single course in marriage and families. The program has been addressing these needs through part-time instruction, which is an acceptable short and medium term solution. The FCS program will attend to the long-term issues within its future hiring requests.

Table 1 also articulates the preferred qualifications of instructors for each course in the revised program. Those courses designated for faculty-only instruction are core courses and/or require specific faculty expertise (e.g. those electives designed around faculty research expertise). Some courses have been designated as faculty or part-time instructor depending on faculty availability. Finally, a few courses have been designated as TA or PTI only. These courses are ones in which doctoral students will gain teaching experience. Thus 20 (54%) courses have been designated as faculty-only; 16 (43%) courses are designated as faculty or TA/PTI; and 1 course (3%) has been designated for TA/PTI only. Those proportions are similar to the actual proportions of sections taught by faculty, TAs and PTIs during the last two academic years.

Table 2 displays an example two-year schedule. The frequency of courses is based on the sample plans of study appended and on historical frequency of offerings. It is an “example” in terms of the exact ratio of faculty to TA/PTI assignments. It also conforms to the preferred instructor qualifications. This example schedule demonstrates that in Academic Year 2016-2017, 5.55 regular faculty FTE are needed for this undergraduate curriculum and in AY2017-2018, 4.95 regular faculty FTE are needed. For comparison, in AY14-15, FS and ECME employed 3.7 regular faculty FTE in undergraduate instruction. Given the known course reassignments for program coordination, the new assistant professor, and for the lecturer’s other duties, there remains 1.2 regular faculty FTE in AY16-17 and 1.8 regular faculty FTE in AY17-18 for graduate instruction. That is roughly eight graduate course sections per year, which should prove adequate for the graduate programs also being proposed for the FCS program. This example schedule also demonstrates that in AY16-17, the schedule will require 6.75 FTE of TA/PTI use and in AY17-18, 7.25 FTE of TA/PTI use. For comparison, in AY14-15, FS and ECME employed 8.0 FTE of TA/PTI use in undergraduate instruction.

The changes to the undergraduate programs should have no large impact on student enrollments by themselves. The clarity of the program identity, the articulated degree pathways, and the 120/121 hour options, might attract additional majors, but that growth should be incremental and thus manageable. Therefore, we foresee no student-driven changes in the resources required for the program.

In summary, the revised undergraduate program should permit more regular faculty FTE and less TA/PTI than the current undergraduate programs while still providing sufficient regular faculty FTE for graduate instruction. The mismatches between current faculty expertise and that required in the revised program are slight and can be addressed over time. There should also be no appreciable change in number of undergraduate majors.

## Curricular Changes Required at the Bachelor Level

### **Section A: Existing Degree Programs:**

Three Bachelor level degrees currently exist in Family Studies. They are:

- 1) The Bachelor of Science (B.S.) in Family Studies (FS) in the College of Education;
- 2) The Bachelor of Arts (B.A.) in Family Studies (FS) offered in the College of Arts and Sciences; and
- 3) The Bachelor of Science (B.S.) degree in Human Development and Family Relations (HDFR) in the College of Education



One Bachelor level degree currently exists in the ECME program. It offers the Bachelor of Science (B.S.) degree in Early Childhood Multicultural Education (ECME) in the College of Education.

### **Section B: The Proposed FCS Degree Program**

Two bachelor level degrees will be offered under the FCS Program. They are:

- 1) The Bachelor of Science (B.S.) in Family and Child Studies (FCS) in the College of Education;
- 2) The Bachelor of Arts (BA) in Family and Child Studies (FCS) in the College of A&S.

The proposed B.S. degree in FCS program will be offered with three concentrations:

- 1) Early Childhood Education and Development (ECED)
- 2) Human Development and Family Relations (HDFR)
- 3) Early Childhood Multicultural Education Licensure (ECMEL), Pre-K to Grade 3

The proposed program of studies for ECED, HDFR, and ECMEL concentrations of the FCS Bachelor of Science degree are found in **Appendix 3**.

### **Section C: Forms**

The proposed revisions will include the following curricular forms at the undergraduate level:

#### **Form C – Deletion and/or revision**

1. Deletion of the ECME Bachelor of Science degree.
2. Deletion of the HDFR Bachelor of Science degree.
3. Revision of the FS Bachelor of Science degree into the FCS Bachelor of Science Degree
4. Creation of the Human Development and Family Relations concentration of the Bachelor of Science in FCS.
5. Creation of the Early Childhood Education and Development concentration of the Bachelor of Science in FCS.
6. Creation of Early Childhood Multicultural Education Licensure, Pre-K to Grade 3 of the Bachelor of Science in FCS
7. Revision of the FS Minor to create FCS minor
8. Deletion of the HDFR Minor.
9. Revision of the FS Bachelor of Arts degree into the FCS Bachelor of Arts degree.
10. Authorization to count ARTE as fulfilling the UNM Core Fine Arts Requirements

**Form B –** New courses are developed as feeder for FCS and as the requirements for the ECMEL Pre-K to Grade 3 Licensure track in FCS

- FCS 102: Carpe Noctem: Sleep, Health & the Family (3)
- FCS 302: Emergent Literacy (3)
- FCS 316 Early Childhood Pedagogy & Curriculum (3)
- FCS 321 Young Children with Diverse Abilities (3)
- FCS 405: Advanced Caregiving for Infants and Toddlers (3)
- FCS 406: Teaching and Learning Math and Science (3)
- FCS 408: Teaching and Learning Social Studies, Fine Arts & Movement (3)
- FCS 440: Student Teaching Seminar (3)

**Form A** – FS/ECME Courses revised for proposed FCS program that involves New Prefix or New Number or Revised Course Title.

| <b>Existing Program</b> | <b>Existing Course Prefix, Number, &amp; Title in FS</b> | <b>Revised Course Prefix, Number, &amp; Title in FCS</b> | <b>Action</b>                             |
|-------------------------|----------------------------------------------------------|----------------------------------------------------------|-------------------------------------------|
| FS – Family Studies     | FS 202: Infant Growth and Development                    | FCS 203: Infant Growth and Development                   | Prefix; Course Number                     |
|                         | FS 213: Marriage and Family Relationships                | FCS 213: Marriage and Family Relationships               | Prefix                                    |
|                         | FS 281: Introduction of Family Studies                   | FCS 105: Introduction to Family and Child Studies        | Prefix; Course Number; New Title          |
|                         | FS 304: Growth & Development in Middle Childhood         | FCS 304: Growth & Development in Middle Childhood        | Prefix                                    |
|                         | FS 310: Friends & Intimate Relationships                 | FCS 310: Friends & Intimate Relationships                | Prefix                                    |
|                         | FS 312: Parent- Child Interactions                       | FCS 312: Parent- Child Interactions                      | Prefix                                    |
|                         | FS 313: Family Theories and Contemporary Lifestyles      | FCS 313: Family Theories                                 | Prefix                                    |
|                         | FS 315: Adolescent Development in the Family             | FCS 315: Adolescent Development in the Family            | Prefix                                    |
|                         | FS 341: Ecological Aspects of Housing                    | FCS 341: Ecological Aspects of Housing                   | Prefix                                    |
|                         | FS 343: Family Management Theories                       | FCS 343: Family Management Theories                      | Prefix; remove “permission of instructor” |
|                         | FS 344: Consumer Decisions                               | FCS 344: Consumer Decisions                              | Prefix                                    |
|                         | FS 391: Problems                                         | FCS 391: Problems                                        | Prefix; Instructor Permission             |
|                         | FS 395: Field Experience I                               | FCS 395: Field Experience                                | Prefix; Instructor Permission             |
|                         | FS 403: Growth and Development of the Preschool Child    | FCS 403: Growth and Development of the Preschool Child   | Prefix                                    |
|                         | FS 407L: Preschool Child Laboratory                      | FCS 407L: Preschool Child Lab                            | Prefix                                    |

|                                                |                                                                         |                                                                 |                                                          |
|------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------------------------|
|                                                | FS 411: Marriage & Family Life Education                                | FCS 411: Marriage & Family Life Education                       | Prefix                                                   |
|                                                | FS 412: Fathering                                                       | FCS 412: Fathering                                              | Prefix                                                   |
|                                                | FS 416: Adult Development in the Family                                 | FCS 416: Adult Development in the Family                        | Prefix                                                   |
|                                                | FS 443: Application of Family Management Theories                       | FCS 443: Application of Family Management Theories              | Prefix                                                   |
|                                                | FS 481: Families and Public Policy                                      | FCS 481: Public Policy and Advocacy in Family and Child Studies | Prefix; Junior Standing                                  |
|                                                | FS 484: Ethnic Minority Families                                        | FCS 484: The Sociocultural Context of Families                  | Prefix; New Title; Junior Standing                       |
|                                                | FS 493: Topics                                                          | FCS 493: Topics                                                 | Prefix                                                   |
|                                                | FS 497: Reading & Research in Honors I                                  | FCS 497: Reading & Research in Honors I                         | Prefix; Instructor Permission                            |
|                                                | FS 498: Reading & Research in Honors II                                 | FCS 498: Reading & Research in Honors II                        | Prefix; Instructor Permission                            |
|                                                | FS 499: Honors Thesis                                                   | FCS 499: Honors Thesis                                          | Prefix; Instructor Permission                            |
|                                                |                                                                         |                                                                 |                                                          |
| ECME – Early Childhood Multicultural Education | ECME 305: Research and Evaluation in Early Childhood                    | FCS 305: Research and Evaluation in Family and Child Studies    | Prefix; New Title; Junior Standing                       |
|                                                | ECME 311: Family and Community Collaboration II                         | FCS 311: Family, Language and Culture                           | Prefix; New Title; Credit value change (2 to 3 credits)  |
|                                                | ECME 401: Research in Child Growth, Development, and Learning           | FCS 401: Research in Child Growth, Development, and Learning    | Prefix                                                   |
|                                                | ECME 402: Teaching and Learning Reading and Writing                     | FCS 402: Teaching and Learning Reading and Writing              | Prefix; New Title                                        |
|                                                | ECME 417L: Methods and Materials for the Early Primary Grades Practicum | FCS 417L: Teaching and Learning Practicum                       | Prefix; New Title                                        |
|                                                | ECME 440L: Student Teaching Lab                                         | FCS 440L: Student Teaching Lab                                  | Prefix; New Title; Credit value change (12 to 9 credits) |

**Form A** – Lower Division FCS courses that are required to be offered as “Also Offered As” courses with UNM branch ECME courses. These courses are required for the Associate of Arts in ECME at branch campuses and FCS Bachelor of Science ECED and ECMEL Pre-K to Grade 3 concentrations on main campus.

| <b>Existing ECME Program in Branch Campuses</b>    | <b>Existing ECME Course Number and Title in Branch Campuses</b> | <b>Equivalent to FCS Course Number and Title</b>                    | <b>Action</b>                    |
|----------------------------------------------------|-----------------------------------------------------------------|---------------------------------------------------------------------|----------------------------------|
| ECME – Early Childhood and Multicultural Education | ECME 101: Child Growth, Development & Learning                  | FCS 101: Child Growth, Development & Learning                       | Prefix; AOA ECME 101             |
|                                                    | ECME 103: Health Safety, & Nutrition                            | FCS 103: Health Safety, & Nutrition                                 | Prefix; AOA ECME 103             |
|                                                    | ECME 111: Family and Community Collaboration I                  | FCS 111: Family and Community Collaboration                         | Prefix; New Title; AOA ECME 111  |
|                                                    | ECME 115: Guiding Young Children                                | FCS 115: Guiding Young Children                                     | Prefix; AOA ECME 115             |
|                                                    | ECME 117: Curriculum and Implementation I                       | FCS 117: Curriculum Development Through Play Birth Through Age 4    | Prefix; New Title; AOA ECME 117  |
|                                                    | ECME 117L: Curriculum and Implementation Practicum I            | FCS 117L: Practicum Birth through Age 4                             | Prefix; New Title; AOA ECME 117L |
|                                                    | ECME 202 Introduction to Reading and Literacy Development       | FCS 202: Introduction to Reading, Language & Literacy               | Prefix; New Title; AOA ECME 202  |
|                                                    | ECME 217: Curriculum and Implementation II                      | FCS 217: Curriculum Development and Implementation Age 3 to Grade 3 | Prefix; New Title; AOA ECME 217  |
|                                                    | ECME 217L: Curriculum and Implementation Practicum II           | FCS 217L: Practicum Age 3 to Grade 3                                | Prefix; New Title; AOA ECME 217L |
|                                                    | ECME 220: Assessment of Children and Evaluation of Programs I   | FCS 220: Assessment of Children & Evaluation of Programs            | Prefix; New Title; AOA ECME 220  |
|                                                    | ECME 230: Professionalism                                       | FCS 230: Professionalism                                            | Prefix; AOA ECME 230             |

**Form A – Courses deleted from ECME**

- ECME 315: Public Policy, Leadership, Ethics & Reform in ECE
- ECME 317: Integrated Early Childhood Curriculum
- ECME 317L: Integrated Early Childhood Curriculum Practicum
- ECME 391: Problems
- ECME 325: The Social, Political, & Cultural Contexts of Children & Families
- ECME 402L: Teaching Reading & Writing Practicum
- ECME 417: Method & Materials for the Early Primary Grades
- ECME 493: Topics in Early Child Education
- ECME 497: Reading & Research in Honors I
- ECME 498: Reading & Research in Honors II
- ECME 499: Honors Thesis
- 

**Form A – Courses deleted from FS**

- FS 207L Infant Lab
- FS 444 Family Finance
- FS 495 Field Experience II

APPENDIX 1  
**Resource Needs for the Family and Child Studies Undergraduate Degrees**

Table 1: Faculty Expertise and Preferred Instructor Qualifications for All Undergraduate FCS Courses

| Course Number | Course title                          | Preferred Instructor Qualifications | Kessel | Hossain | Atencio | Gutierrez-Gomez | Kelly | Lecturer | Asst. Professor |
|---------------|---------------------------------------|-------------------------------------|--------|---------|---------|-----------------|-------|----------|-----------------|
| 101           | Child Growth Dev Learn                | F or TA/PTI                         | X      | X       | X       | X               | X     | X        | X               |
| 102           | Carpe Noctem: Sleep                   | Faculty                             |        |         |         |                 | X     |          |                 |
| 103           | Health Safety & Nutrition             | F or TA/PTI                         |        |         | X       | X               |       | X        |                 |
| 105           | Introduction to FCS                   | F or TA/PTI                         | X      | X       | X       | X               | X     | X        | X               |
| 111*          | Family & Community Colla              |                                     |        |         |         |                 |       |          |                 |
| 115           | Guiding Young Children                | F or TA/PTI                         | X      | X       | X       | X               | X     | X        | X               |
| 117*          | Curriculum Dev & Play                 |                                     |        |         |         |                 |       |          |                 |
| 117L*         | Practicum: Birth to Age 4             |                                     |        |         |         |                 |       |          |                 |
| 202*          | Intro to Reading, Language            |                                     |        |         |         |                 |       |          |                 |
| 203           | Infant Growth & Dev                   | TA or PTI                           | X      | X       | X       | X               | X     | X        | X               |
| 213           | Marriage & Family Relation            | F or TA/PTI                         | X      | X       | X       | X               | X     | X        | X               |
| 217*          | Curriculum Dev & Implem               |                                     |        |         |         |                 |       |          |                 |
| 217L*         | Practicum: Age 3 -Grade 4             |                                     |        |         |         |                 |       |          |                 |
| 220*          | Assessment of Children                |                                     |        |         |         |                 |       |          |                 |
| 230           | Professionalism                       | Faculty                             | X      |         | X       | X               |       | X        |                 |
| 302           | Emergent Literacy                     | Faculty                             |        |         |         | X               |       |          |                 |
| 304           | Middle Childhood                      | F or TA/PTI                         | X      | X       | X       | X               | X     | X        | X               |
| 305           | Research & Evaluation                 | Faculty                             | X      | X       | X       | X               | X     | X        | X               |
| 310           | Friends & Intimate Rela               | F or TA/PTI                         |        | X       |         |                 | X     |          | X               |
| 311           | Family, Language and                  | Faculty                             | X      |         | X       | X               |       | X        |                 |
| 312           | Parent-Child Interactions             | F or TA/PTI                         | X      | X       | X       | X               | X     | X        | X               |
| 313           | Family Theories                       | F or TA/PTI                         |        | X       |         |                 | X     |          | X               |
| 315           | Adolescent Development                | F or TA/PTI                         | X      | X       | X       | X               | X     | X        | X               |
| 316           | Early Childhood Pedagogy              | Faculty                             |        |         | X       | X               |       | X        |                 |
| 321           | Young Children with Diverse Abilities | SPED                                |        |         |         |                 |       |          |                 |

| Course Number | Course title                                   | Preferred Instructor Qualifications | Kessel | Hossain | Atencio | Gutierrez-Gomez | Kelly | Lecturer | Asst. Professor |
|---------------|------------------------------------------------|-------------------------------------|--------|---------|---------|-----------------|-------|----------|-----------------|
| 341           | Ecological Aspects of                          | F or TA/PTI                         |        |         |         |                 |       |          |                 |
| 343           | Family Mgmt. Theories                          | F or TA/PTI                         |        |         |         |                 |       |          |                 |
| 344           | Consumer Decision                              | F or TA/PTI                         |        | X       |         |                 |       |          |                 |
| 391           | Problems                                       | Faculty                             |        |         |         |                 |       |          |                 |
| 395           | Field Experience                               | Faculty                             | X      | X       | X       | X               | X     | X        | X               |
| 401           | Research in Child Growth                       | Faculty                             | X      | X       | X       | X               | X     | X        | X               |
| 402           | Teaching & Learning Read & Writing             | Faculty                             |        |         | X       | X               |       | X        |                 |
| 403/407L      | Preschool Child; Preschool Lab                 | Faculty                             | X      | X       | X       | X               | X     | X        | X               |
| 405           | Advanced Caregiving for Infants and Toddlers   | Faculty                             |        |         | X       | X               |       | X        |                 |
| 406           | Teaching & Learning: Math & Science            | Faculty                             |        |         |         | X               |       | X        |                 |
| 408           | Teaching & Learning: Social Studies, Fine Arts | Faculty                             |        |         |         | X               |       | X        |                 |
| 411           | Marriage & Family Life                         | F or TA/PTI                         |        |         |         |                 |       |          |                 |
| 412           | Fathering                                      | Faculty                             |        | X       |         |                 |       |          |                 |
| 416           | Adult Development                              | F or TA/PTI                         | X      | X       | X       | X               | X     | X        | X               |
| 417L          | Teach & Learn: Practicum                       | Faculty                             | X      |         | X       | X               |       | X        |                 |
| 440/440L      | Student Teaching Seminar; Practicum            | Faculty                             |        |         |         | X               |       | X        |                 |
| 443           | Application of Family                          | F or TA/PTI                         |        |         |         |                 |       |          |                 |
| 481           | Public Policy & Advocacy                       | Faculty                             | X      |         |         |                 |       |          |                 |
| 484           | The Sociocultural Context of Families          | Faculty                             | X      | X       | X       | X               | X     | X        | X               |
| 493           | Topics                                         | Faculty                             |        |         |         |                 |       |          |                 |
| 497           | Reading & Research in Honors I                 | Faculty                             |        |         |         |                 |       |          |                 |
| 498           | Reading & Research in Honors II                | Faculty                             |        |         |         |                 |       |          |                 |



| Course Number | Course title  | Preferred Instructor Qualifications | Kessel | Hossain | Atencio | Gutierrez-Gomez | Kelly | Lecturer | Asst. Professor |
|---------------|---------------|-------------------------------------|--------|---------|---------|-----------------|-------|----------|-----------------|
| 499           | Honors Thesis | Faculty                             |        |         |         |                 |       |          |                 |

Table 2: Example Two-Year Schedule For Undergraduate FCS Courses

| FCS Courses  |                                                | Fall 2016 | Spring 2017 | Summer 2017 | Fall 2017 | Spring 2018 |
|--------------|------------------------------------------------|-----------|-------------|-------------|-----------|-------------|
| 101          | Child Growth Dev Learn                         | F         | F           |             | TA/PTI    | TA/PTI      |
| 102          | Carpe Noctem: Sleep                            | F         |             |             | F         |             |
| 103          | Health Safety & Nutrition                      |           | TA/PTI      |             |           | TA/PTI      |
| 105          | Introduction to FCS                            | F         | F           |             | F         | F           |
| 111*         | Family & Community Colla                       |           |             |             |           |             |
| 115          | Guiding Young Children                         | TA/PTI    | TA/PTI      |             | TA/PTI    | TA/PTI      |
| 117*         | Curriculum Dev & Play                          |           |             |             |           |             |
| 117L*        | Practicum: Birth to Age 4                      |           |             |             |           |             |
| 202*         | Intro to Reading, Language                     |           |             |             |           |             |
| 203          | Infant Growth & Dev                            | TA/PTI    |             |             | TA/PTI    |             |
| 213          | Marriage & Family Relation                     | TA/PTI    | TA/PTI      | TA/PTI      | TA/PTI    | TA/PTI      |
| 217*         | Curriculum Dev & Implem                        |           |             |             |           |             |
| 217L*        | Practicum: Age 3 –Grade 4                      |           |             |             |           |             |
| 220*         | Assessment of Children                         |           |             |             |           |             |
| 230          | Professionalism                                |           | F           |             |           | F           |
| 302          | Emergent Literacy                              |           | F           |             |           | F           |
| 304          | Middle Childhood                               |           | TA/PTI      |             |           | TA/PTI      |
| 305          | Research & Evaluation                          | F         | F           |             | F         | F           |
| 310          | Friends & Intimate Rela                        | TA/PTI    | TA/PTI      |             | TA/PTI    | TA/PTI      |
| 311          | Family, Language and                           | F         |             |             | F         |             |
| 312          | Parent-Child Interactions                      | TA/PTI    | TA/PTI      |             | TA/PTI    | TA/PTI      |
| 313          | Family Theories                                | TA/PTI    |             |             | TA/PTI    |             |
| 315          | Adolescent Development                         | TA/PTI    | TA/PTI      |             | TA/PTI    | TA/PTI      |
| 316          | Early Childhood Pedagogy                       | F         |             |             | F         |             |
| 321          | Young Children with Diverse Abilities          |           | F (ITV)     |             |           | F (ITV)     |
| 341          | Ecological Aspects of                          |           | Y           |             |           | Y           |
| 343          | Family Mgmt. Theories                          | TA/PTI    | TA/PTI      |             | TA/PTI    | TA/PTI      |
| 344          | Consumer Decision                              |           |             | TA/PTI      |           |             |
| 391          | Problems                                       | ARR       | ARR         | ARR         | ARR       | ARR         |
| 395          | Field Experience                               | F         | F           | F           | F         | F           |
| 401          | Research in Child Growth                       | F         |             |             | F         |             |
| 402          | Teaching & Learning Read & Writing             | F         |             |             | F         |             |
| 403/<br>407L | Preschool Child; Preschool Lab                 |           | F           |             |           | F           |
| 405          | Advanced Caregiving for Infants and Toddlers   | F         |             |             | F         |             |
| 406          | Teaching & Learning: Math & Science            |           | F           |             |           | F           |
| 408          | Teaching & Learning: Social Studies, Fine Arts | F         |             |             | F         |             |
| 411          | Marriage & Family Life                         | TA/PTI    |             |             | TA/PTI    |             |
| 412          | Fathering                                      |           | TA/PTI      |             |           | TA/PTI      |
| 416          | Adult Development                              | TA/PTI    |             |             | TA/PTI    |             |
| 417L         | Teach & Learn: Practicum                       |           | TA/PTI      |             |           | TA/PTI      |
| 440/<br>440L | Student Teaching Seminar; Practicum            | F (ITV)   |             |             | F (ITV)   |             |
| 443          | Application of Family                          | TA/PTI    |             |             | TA/PTI    |             |
| 481          | Public Policy & Advocacy                       | F         | F           |             | F         | F           |
| 484          | The Sociocultural Context of Families          | F         | F           | F           | F         | F           |
| 493          | Topics                                         | ARR       | ARR         | ARR         | ARR       | ARR         |
| 497          | Reading & Research in Honors I                 | ARR       | ARR         | ARR         | ARR       | ARR         |
| 498          | Reading & Research in Honors II                | ARR       | ARR         | ARR         | ARR       | ARR         |
| 499          | Honors Thesis                                  | ARR       | ARR         | ARR         | ARR       | ARR         |

\* – Branch Campus Only; F – Course will be offered by regular faculty; TA/PTI – Course will be offered by TA/ PTI; ARR – will be arranged by faculty

## APPENDIX 2

### Memos addressing potential duplication

| [March 22, 2016](#)~~[October 15, 2015](#)~~

## MEMORANDUM FROM SPECIAL EDUCATION PROGRAM REGARDING FCS 321

Wednesday, April 16, 2014 at 10:58:40 AM Mountain Daylight Time

---

**Subject:** FS 321

**Date:** Wednesday, March 26, 2014 at 10:51:39 AM Mountain Daylight Time

**From:** Elizabeth Keefe

**To:** David Atencio

Dear David:

Thank you for presenting the FS 321 course to the Special Education Faculty on October 3rd, 2013. The faculty voted unanimously to support the offering of this course as part of the new Early Childhood degree. This course does not have significant overlap with any existing SPCD courses. There are special education faculty who would be interested in teaching this course if needed.

Sincerely,

Liz Keefe  
Program Coordinator, Special Education

Page 1 of 1

| [March 22, 2016](#)~~[October 15, 2015](#)~~

**Memorandum from TEELP regarding the entire sequence**

**From:** Cheryl Torrez <[catorrez@unm.edu](mailto:catorrez@unm.edu)>  
**Subject:** RE: Family and Child Studies Form B approvals  
**Date:** April 11, 2013 11:30:35 AM MDT  
**To:** David Atencio <[datencio@comcast.net](mailto:datencio@comcast.net)>

David, **We see no conflict at all with these courses.** Thanks for your outstanding work! Also, I was in Zuni recently, and a few students were interested in ECME. So, if you receive emails, .... just a heads up.  
Thanks, Cheryl

Cheryl A. Franklin Torrez, Ph.D.  
Associate Professor and Interim Department Chair  
Department of Teacher Education  
The University of New Mexico  
MSC 05 2040  
Albuquerque, NM 87131-000  
(505) 277-9611

**From:** David Atencio [[datencio@comcast.net](mailto:datencio@comcast.net)]  
**Sent:** Monday, April 08, 2013 8:12 AM  
**To:** Cheryl Torrez  
**Cc:** David Atencio  
**Subject:** Family and Child Studies Form B approvals

Good morning Cheryl,

I hope you are off to another exciting and breezy Monday morning! As I shared with you earlier, part of the merger of the Family Studies Program and the ECME program into the new Family and Child Studies program involves the creation of new courses that are in accordance with the revised Birth to PreK and the PreK to Grade Three teacher preparation pathways. These two new degree pathways were approved by the Professional Practices and Standards Council from PED for UNM, NMSU ENMU, WNMU, and NMHU on November 18, 2011. As you may know, we have a universal curriculum for all Associate Degree and Bachelor level degree early childhood programs in New Mexico. Our universal curriculum aligns with the core competencies for both the Birth to PreK and PreK to Grade Three licenses.

As part of the curriculum review process, we respectfully request your review of the attached syllabi for possible duplication with any of your department's courses. Please let me know if I can assist with any questions your faculty may have for us. On behalf of my FCS colleagues, I thank you for assistance with this important task.

Thanks again,  
David



STATE OF NEW MEXICO  
PUBLIC EDUCATION DEPARTMENT  
300 DON GASPAR  
SANTA FE, NEW MEXICO 87501-2786  
Telephone (505) 827-5800  
[www.ped.state.nm.us](http://www.ped.state.nm.us)

HANNA SKANDERA  
SECRETARY-DESIGNATE OF EDUCATION

SUSANA MARTINEZ  
Governor

March 5, 2012

Dr. David Atencio  
ECME Program Coordinator  
1 University of New Mexico  
Simpson Hall  
Albuquerque, New Mexico 87131

Dear Dr. Atencio:

I am pleased to accept the recommendation of the Professional Practices and Standards Council (FPSC) which met on November 18, 2011 to approve Teacher Quality statewide universal early childhood education licensure programs for birth to PreK and PreK to grade 3.

The approved programs apply only to four year universities, specifically Eastern New Mexico University, New Mexico Highlands University, New Mexico State University, University of New Mexico and Western New Mexico University. Also this program does not apply to any early childhood alternative licensure programming.

The community colleges involved do not need NMPED licensure approval, but are expected to provide the universal coursework for transferability and transparency among all state approved early childhood programs.

Your program will provide much-needed support to the school districts in our state.

Please extend my appreciation to your administrators, faculty, and your staff for your preparation and the presentation of your program to the members of the FPSC. I wish you and your staff at ECME every success.

Warm regards,

A handwritten signature in cursive script that reads "Hanna Skandera".

Hanna Skandera  
Secretary Designate of Education

HS/MM/egm

cc: Mary Lou Lovato, NMPED Professional Licensure

Revised 01.04.11

March 22, 2016 ~~October 15, 2015~~

### APPENDIX 3

#### PROPOSED FCS PROGRAM OF STUDIES FOR

1. **B.S. in Human Development and Family Relations concentration (HDFR)**
2. **General Education courses for the HDFR concentration**
3. **B. S. in Early Childhood Education and Development concentration (ECED)**
4. **Required General Education courses for the ECED concentration**
5. **B.S. in Early Childhood Multicultural Education Licensure Pre-K to Grade 3 concentration (ECMEL)**
6. **Required General Education courses for the ECMEL Pre-K to Grade 3 concentration**
7. **Minor in Family and Child Studies**
8. **B.A. in Family and Child Studies (for A&S students)**

|                                         |
|-----------------------------------------|
| <b>B.S. in Family and Child Studies</b> |
|-----------------------------------------|

**Concentration: Human Development and Family Relations – HDFR (proposed)****Family and Child Studies Courses**

| <b>FCS Core Curriculum</b>                |                                                        | <b>12 Credits</b> |
|-------------------------------------------|--------------------------------------------------------|-------------------|
| FCS 105                                   | Introduction to Family and Child Studies               | 3                 |
| FCS 305                                   | Research and Evaluation in Family and Child Studies    | 3                 |
| FCS 481                                   | Public Policy and Advocacy in Family and Child Studies | 3                 |
| FCS 484                                   | The Sociocultural Context of Children and Families     | 3                 |
| <b>HDFR Concentration Core Curriculum</b> |                                                        | <b>13 Credits</b> |
| FCS 213                                   | Marriage and Family Relationships                      | 3                 |
| FCS 312                                   | Parent-Child Interactions                              | 3                 |
| FCS 395                                   | Field Experience                                       | 3                 |
| FCS 403                                   | Growth and Development of the Preschool Child          | 3                 |
| FCS 407L                                  | Preschool Child Lab                                    | 1                 |
| <b>Family Relations</b>                   |                                                        | <b>9 Credits</b>  |
| FCS 310                                   | Friends and Intimate Relationships                     | 3                 |
| FCS 313                                   | Family Theories and Contemporary Lifestyles            | 3                 |
| FCS 411                                   | Marriage and Family Life Education                     | 3                 |
| FCS 412                                   | Fathering                                              | 3                 |
| <b>Human Development</b>                  |                                                        | <b>9 Credits</b>  |
| FCS 203                                   | Infant Growth and Development                          | 3                 |
| FCS 304                                   | Growth and Development in Middle Childhood             | 3                 |
| FCS 315                                   | Adolescent Development in the Family                   | 3                 |
| FCS 416                                   | Adult Development in the Family                        | 3                 |
| <b>Family Resource Management</b>         |                                                        | <b>6 Credits</b>  |
| FCS 341                                   | Ecological Aspects of Housing                          | 3                 |
| FCS 343                                   | Family Management Theories                             | 3                 |
| FCS 344                                   | Consumer Decisions                                     | 3                 |
| FCS 443                                   | Application of Family Management Theories              | 3                 |
| <b>Total FCS Required Hours*</b>          |                                                        | <b>49 Credits</b> |

|                                                        |            |
|--------------------------------------------------------|------------|
| Total Credits<br>(including 40 upper division credits) | 120        |
| <hr style="border-top: 1px dashed black;"/>            |            |
| FCS Courses                                            | 49 Credits |
| Gen Ed Courses                                         | 40 Credits |
| Minor (Optional)*                                      | 18 Credits |
| Electives                                              | 13 Credits |

**\* 67 FCS credits are required to major in FCS (HDFR concentration) without a minor.**

Note: A course in human sexuality is required for the Certified Family Life Educator (CFLE) designation. Consult NCFR's website for details.



Family and Child Studies  
**General Education Requirements – HDFR concentration (Total Credits = 40)**

**AREA 1: Writing and Speaking – 9 credit hours**

ENGL 110 OR ENGL 111/112 OR 113      AND ENGL 120

Choose 1 additional course from the following: ENGL 219, ENGL 220, CJ 130, PHIL 156, UHON 201

**AREA 2: Mathematics – 3 credit hours**

STAT 145

**AREA 3: Physical and Natural Sciences – 7 credit hours**

BIO 110/112L OR BIO 123/124L AND choose 1 additional course from the following:

|                                                  |                                                    |                                                |
|--------------------------------------------------|----------------------------------------------------|------------------------------------------------|
| <b>ANTH 120:</b> Arch. Method & Theory           | <b>CHEM 101:</b> Chemistry in Our Community        | <b>PHYC 102:</b> Introduction to Physics       |
| <b>ANTH 122L:</b> Req. Lab for ANTH 120 (1cr)    | <b>CHEM 111L:</b> Elem of General Chemistry (4cr)  | <b>PHYC 102L:</b> Opt. Lab for PHYC 102 (1cr)  |
| <b>Pre-Spring 2013 ANTH 121L:</b> Arch. M&T(4cr) | <b>CHEM 121:</b> General Chemistry I               | <b>PHYC 105:</b> Physics and Society           |
| <b>ANTH 150:</b> Evol & Human Emergence          | <b>CHEM 123L:</b> Req. Lab for Chem 121 (1cr)      | <b>PHYC 151:</b> General Physics               |
| <b>ANTH 151L:</b> Opt. Lab for ANTH 150 (1cr)    | <b>CHEM 122:</b> General Chemistry II              | <b>PHYC 151L:</b> Opt. Lab for PHYC 151 (1cr)  |
| <b>ANTH 160:</b> Human Life Course               | <b>CHEM 124L:</b> Req. Lab for Chem 122 (1cr)      | <b>PHYC 152:</b> General Physics               |
| <b>ANTH 161L:</b> Opt. Lab for ANTH 160 (1cr)    | <b>CHEM 131L:</b> (Honors) Gen. Chemistry I (4cr)  | <b>PHYC 152L:</b> Opt Lab for PHYC 152 (1cr)   |
| <b>ASTR 101:</b> Intro to Astronomy              | <b>CHEM 132L:</b> (Honors) Gen. Chemistry II (4cr) | <b>PHYC 160:</b> General Physics               |
| <b>ASTR 101L:</b> Opt. Lab for ASTR 101 (1cr)    | <b>EPS 101:</b> Intro to Geology                   | <b>PHYC 160L:</b> Opt. Lab for PHYC 160 (1cr)  |
| <b>BIOL 110:</b> Biology for Non-Majors          | <b>EPS 105L:</b> Opt. Lab for EPS 101 (1cr)        | <b>PHYC 161:</b> General Physics               |
| <b>BIOL 112:</b> Opt. Lab for BIOL 110 (1cr)     | <b>EPS 201L:</b> Earth History (4cr)               | <b>PHYC 161L:</b> Opt. Lab for PHYC 161 (1cr)  |
|                                                  | <b>ENVS 101:</b> The Blue Planet                   | <b>*NTSC 261L:</b> Physical Science (4cr)      |
|                                                  | <b>ENVS 102L:</b> Opt. Lab for ENVS 101            | <b>*NTSC 262L:</b> Life Science (4cr)          |
|                                                  | <b>GEOG 101:</b> Physical Geography                | <b>*NTSC 263L:</b> Environmental Science (4cr) |
|                                                  | <b>GEOG 105L:</b> Opt. Lab for GEOG 101 (1cr)      | <b>UHON 203:</b> Science in the 21st Century   |

**AREA 4: Social and Behavioral Sciences – 6 credit hours. Choose 2 courses from the following:**

|                                                                                                 |                                                 |                                          |
|-------------------------------------------------------------------------------------------------|-------------------------------------------------|------------------------------------------|
| <b>AFTS / CCS / NATV / SUST / WMST 109:</b><br>Intro to Comparative and Global Ethnic Societies | <b>ECON 105:</b> Intro to Macroeconomics        | <b>POLS 110:</b> The Political World     |
| <b>AMST 182:</b> Intro to Env. Sci. & Technology                                                | <b>ECON 106:</b> Intro to Microeconomics        | <b>POLS 200:</b> American Politics       |
| <b>AMST 185:</b> Race, Class & Ethnicity                                                        | <b>CRP 181:</b> Intro to Environmental Problems | <b>POLS 220:</b> Comparative Politics    |
| <b>ANTH 101:</b> Intro to Anthropology                                                          | <b>ENGF 200:</b> Technology in Society          | <b>POLS 240:</b> International Politics  |
| <b>ANTH 130:</b> Cultures of the World                                                          | <b>GEOG 102:</b> Human Geography                | <b>SOC 101:</b> Intro to Sociology       |
| <b>PSY 105:</b> General Psychology                                                              | <b>LING 101:</b> Intro to Linguistics           | <b>UHON 204:</b> Individual & Collective |

**AREA 5: Humanities – 6 credit hours: Choose 2 courses from the following**

|                                                       |                                                     |                                                  |
|-------------------------------------------------------|-----------------------------------------------------|--------------------------------------------------|
| <b>AFST 104:</b> Intro to Africana Studies<br>Studies | <b>ENGL 150:</b> Study of Literature                | <b>NATV 150:</b> Intro to Native American        |
| <b>AMST 186:</b> Intro to Southwest Studies           | <b>ENGL 292/293:</b> World Literatures              | <b>PHIL 101:</b> Intro to Philosophical Problems |
| <b>CCS 201:</b> Intro to Chicana & Chicano Studies    | <b>GEOG 140:</b> World Regional Geography           | <b>PHIL 201:</b> Greek Thought                   |
| <b>CLST 107:</b> Greek Mythology                      | <b>HIST 101/L:</b> Western Civilization (to 1648)   | <b>PHIL 202:</b> From Descartes to Kant          |
| <b>CLST 204:</b> Greek Civilization                   | <b>HIST 102/L:</b> Western Civilization (from 1648) | <b>RELG 107:</b> Living World Religions          |
| <b>CLST 205:</b> Roman Civilization                   | <b>HIST 161/L:</b> History of the US to 1877        | <b>RELG 263:</b> Eastern Religions               |
| <b>CLCS 223/224:</b> Literary Questions               | <b>HIST 162:</b> History of the US since 1877       | <b>RELG 264:</b> Western Religions               |
| <b>COMP 222:</b> Fairy and Folk Tales                 | <b>HIST 181:</b> History of Early Latin America     | <b>UHON - Honors Legacy Sem, 100-200 level</b>   |
| <b>COMP 224:</b> Literary Questions                   | <b>HIST 182:</b> Modern Latin American History      | <b>UHON 205:</b> Humanities Society & Culture    |
| <b>MLNG 101:</b> Languages                            |                                                     |                                                  |

**AREA 6: Foreign Language – 3 credit hours**

One course chosen from any lower-division non-English language offerings from the Dept. of Linguistics (including Sign Language), Spanish and Portuguese, Foreign Languages and Literatures, and foreign languages in other depts. and programs (except Latin 105).

**AREA 7: Fine Arts – 3 credit hours required. Choose 1 course from the following:**

|                                                                      |                                        |                                                 |
|----------------------------------------------------------------------|----------------------------------------|-------------------------------------------------|
| <b>ARCH 121:</b> Intro to Architecture                               | <b>DANC 105:</b> Dance Appreciation    | <b>THEA 105:</b> Intro to Theatre Appreciation  |
| <b>Pre-Fall 2010 Arch 101:</b> Intro to Architecture<br>Appreciation | <b>FA 284:</b> Experiencing the Arts   | <b>Pre-Fall 2010 THEA 122:</b> Theatre          |
| <b>ARTH 101:</b> Intro to Art                                        | <b>MA 210:</b> Intro to Film and Study | <b>UHON 207:</b> Fine Art as Global Perspective |

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**ARTH 201:** History of Art 1

**MUS 139:** Music Appreciation

**ARTH 202:** History of Art 2

**MUS 142:** Rock Music Appreciation

Any 3 credit hour studio or performance course offered by the Department of Art and Art History, Music, Theatre and Dance, Media Arts or IFDM.

**Additional Requirement - 3 credits hours**

NUTR 120 OR 224

|                                         |
|-----------------------------------------|
| <b>B.S. in Family and Child Studies</b> |
|-----------------------------------------|

**Concentration: Early Childhood Education & Development – ECED (proposed)****Family and Child Studies Courses**

|                                                       |                                                        |                   |
|-------------------------------------------------------|--------------------------------------------------------|-------------------|
| <b>FCS Degree Core Curriculum</b>                     |                                                        | <b>12 Credits</b> |
| FCS 105                                               | Introduction to Family and Child Studies               | 3                 |
| FCS 305                                               | Research and Evaluation in Family and Child Studies    | 3                 |
| FCS 481                                               | Public Policy and Advocacy in Family and Child Studies | 3                 |
| FCS 484                                               | The Sociocultural Context of Children and Families     | 3                 |
| <b>Concentration Curriculum (lower division)</b>      |                                                        | <b>12 Credits</b> |
| FCS 101                                               | Child Growth, Development and Learning                 | 3                 |
| FCS 102                                               | Carpe Noctem: Sleep, Health & the Family               | 3                 |
| FCS 103                                               | Health, Safety, & Nutrition                            | 2                 |
| FCS 111                                               | Family and Community Collaboration                     | 3                 |
| FCS 115                                               | Guiding Young Children                                 | 3                 |
| FCS 117                                               | Curriculum Development through Play                    | 3                 |
| FCS 202                                               | Introduction to Language, Literacy, & Reading          | 3                 |
| FCS 203                                               | Infant Growth and Development                          | 3                 |
| FCS 213                                               | Marriage and Family Relationships                      | 3                 |
| FCS 217                                               | Curriculum Development & Implementation Age 3 to Gr. 3 | 3                 |
| FCS 220                                               | Assessment of Children & Evaluation of Programs        | 3                 |
| FCS 230                                               | Professionalism                                        | 2                 |
| <b>Concentration Core Curriculum (upper division)</b> |                                                        | <b>21 Credits</b> |
| FCS 302                                               | Emergent Literacy                                      | 3                 |
| FCS 311                                               | Family, Language and Culture                           | 3                 |
| FCS 312                                               | Parent-Child Interactions                              | 3                 |
| FCS 316                                               | Early Childhood Pedagogy & Curriculum                  | 3                 |
| FCS 401                                               | Research in Child Growth, Development and Learning     | 3                 |
| FCS 403                                               | Growth and Development of the Pre-School Child         | 3                 |
| FCS 405                                               | Advanced Caregiving for Infants and Toddlers           | 3                 |
| <b>FCS Electives (upper division)</b>                 |                                                        | <b>24 Credits</b> |
| FCS 304                                               | Growth and Development in Middle Childhood             | 3                 |
| FCS 310                                               | Friends and Intimate Relationships                     | 3                 |
| FCS 313                                               | Family Theories and Contemporary Lifestyles            | 3                 |
| FCS 315                                               | Adolescent Development in the Family                   | 3                 |
| FCS 321                                               | Young Children with Diverse Abilities                  | 3                 |
| FCS 341                                               | Ecological Aspects of Housing                          | 3                 |
| FCS 343                                               | Family Management Theories                             | 3                 |
| FCS 344                                               | Consumer Decisions                                     | 3                 |
| FCS 395                                               | Field Experience I                                     | 3                 |
| FCS 407L                                              | Pre-School Child Lab                                   | 1                 |
| FCS 411                                               | Marriage and Family Life Education                     | 3                 |
| FCS 412                                               | Fathering                                              | 3                 |
| FCS 416                                               | Adult Development in the Family                        | 3                 |
| FCS 443                                               | Application of Family Management Theories              | 3                 |
| <b>Total Professional Courses</b>                     |                                                        | <b>69 Credits</b> |

|                                       |     |
|---------------------------------------|-----|
| Total Credits                         | 120 |
| (including 40 credits upper division) |     |
| FCS Courses                           | 69  |
| Gen Ed Courses                        | 40  |
| Electives                             | 11  |

## General Education Requirements – ECED concentration (Total Credits = 40)

### AREA 1: Writing and Speaking – 9 credit hours

ENGL 110 OR ENGL 111/112 OR 113 AND ENGL 120

Choose 1 additional course from the following: ENGL 219, ENGL 220, CJ 130, PHIL 156, UHON 201

### AREA 2: Mathematics – 3 credit hours (choose one of the following)

STAT 145, Math 129, or Math 215

### AREA 3: Physical and Natural Sciences – 7 credit hours

BIO 110/112L OR BIO 123/124L AND choose 1 additional course from the following:

**ANTH 120:** Arch. Method & Theory

**ANTH 122L:** Req. Lab for ANTH 120 (1cr)

**Pre-Spring 2013 ANTH 121L:** Arch. M&T(4cr)

**ANTH 150:** Evol & Human Emergence

**ANTH 151L:** Opt. Lab for ANTH 150 (1cr)

**ANTH 160:** Human Life Course

**ANTH 161L:** Opt. Lab for ANTH 160 (1cr)

**ASTR 101:** Intro to Astronomy

**ASTR 101L:** Opt. Lab for ASTR 101 (1cr)

**BIOL 110:** Biology for Non-Majors

**BIOL 112:** Opt. Lab for BIOL 110 (1cr)

**CHEM 101:** Chemistry in Our Community

**CHEM 111L:** Elem of General Chemistry (4cr)

**CHEM 121:** General Chemistry I

**CHEM 123L:** Req. Lab for Chem 121 (1cr)

**CHEM 122:** General Chemistry II

**CHEM 124L:** Req. Lab for Chem 122 (1cr)

**CHEM 131L:** (Honors) Gen. Chemistry I (4cr)

**CHEM 132L:** (Honors) Gen. Chemistry II (4cr)

**EPS 101:** Intro to Geology

**EPS 105L:** Opt. Lab for EPS 101 (1cr)

**EPS 201L:** Earth History (4cr)

**ENVS 101:** The Blue Planet

**ENVS 102L:** Opt. Lab for ENVS 101

**GEOG 101:** Physical Geography

**GEOG 105L:** Opt. Lab for GEOG 101 (1cr)

**PHYC 102:** Introduction to Physics

**PHYC 102L:** Opt. Lab for PHYC 102 (1cr)

**PHYC 105:** Physics and Society

**PHYC 151:** General Physics

**PHYC 151L:** Opt. Lab for PHYC 151 (1cr)

**PHYC 152:** General Physics

**PHYC 152L:** Opt Lab for PHYC 152 (1cr)

**PHYC 160:** General Physics

**PHYC 160L:** Opt. Lab for PHYC 160 (1cr)

**PHYC 161:** General Physics

**PHYC 161L:** Opt. Lab for PHYC 161 (1cr)

**\*NTSC 261L:** Physical Science (4cr)

**\*NTSC 262L:** Life Science (4cr)

**\*NTSC 263L:** Environmental Science (4cr)

**UHON 203:** Science in the 21st Century

### AREA 4: Social and Behavioral Sciences – 6 credit hours. Choose 2 courses from the following:

**AFTS / CCS / NATV / SUST / WMST 109:**

Intro to Comparative and Global Ethnic Societies

**AMST 182:** Intro to Env. Sci. & Technology

**AMST 185:** Race, Class & Ethnicity

**ANTH 101:** Intro to Anthropology

**ANTH 130:** Cultures of the World

**PSY 105:** General Psychology

**ECON 105:** Intro to Macroeconomics

**ECON 106:** Intro to Microeconomics

**CRP 181:** Intro to Environmental Problems

**ENG 200:** Technology in Society

**GEOG 102:** Human Geography

**LING 101:** Intro to Linguistics

**POLS 110:** The Political World

**POLS 200:** American Politics

**POLS 220:** Comparative Politics

**POLS 240:** International Politics

**SOC 101:** Intro to Sociology

**UHON 204:** Individual & Collective

### AREA 5: Humanities – 6 credit hours: Choose 2 courses from the following

**AFST 104:** Intro to Africana Studies

Studies

**AMST 186:** Intro to Southwest Studies

**CCS 201:** Intro to Chicana & Chicano Studies

**CLST 107:** Greek Mythology

**CLST 204:** Greek Civilization

**CLST 205:** Roman Civilization

**CLCS 223/224:** Literary Questions

**COMP 222:** Fairy and Folk Tales

**COMP 224:** Literary Questions

**MLNG 101:** Languages

**ENGL 150:** Study of Literature

**ENGL 292/293:** World Literatures

**GEOG 140:** World Regional Geography

**HIST 101/L:** Western Civilization (to 1648)

**HIST 102/L:** Western Civilization (from 1648)

**HIST 161/L:** History of the US to 1877

**HIST 162:** History of the US since 1877

**HIST 181:** History of Early Latin America

**HIST 182:** Modern Latin American History

**NATV 150:** Intro to Native American

**PHIL 101:** Intro to Philosophical Problems

**PHIL 201:** Greek Thought

**PHIL 202:** From Descartes to Kant

**RELG 107:** Living World Religions

**RELG 263:** Eastern Religions

**RELG 264:** Western Religions

**UHON - Honors Legacy Sem, 100-200 level**

**UHON 205:** Humanities Society & Culture

### AREA 6: Foreign Language – 3 credit hours

One course chosen from any lower-division non-English language offerings from the Dept. of Linguistics (including Sign Language), Spanish and Portuguese, Foreign Languages and Literatures, and foreign languages in other depts. and programs (except Latin 105).

### AREA 7: Fine Arts – 3 credit hours required. Choose 1 course from the following:

**ARCH 121:** Intro to Architecture

**Pre-Fall 2010 Arch 101:** Intro to Architecture Appreciation

**ARTH 101:** Intro to Art

**ARTH 201:** History of Art 1

**ARTH 202:** History of Art 2

**DANC 105:** Dance Appreciation

**FA 284:** Experiencing the Arts

**MA 210:** Intro to Film and Study

**MUS 139:** Music Appreciation

**MUS 142:** Rock Music Appreciation

**THEA 105:** Intro to Theatre Appreciation

**Pre-Fall 2010 THEA 122:** Theatre

**UHON 207:** Fine Art as Global Perspective

Any 3 credit hour studio or performance course offered by the Department of Art and Art History, Music, Theatre and Dance, Media Arts or IFDM.

### Additional Requirement - 3 credits hours

NUTR 120 OR 224

March 22, 2016 ~~October 15, 2015~~



|                                         |
|-----------------------------------------|
| <b>B.S. in Family and Child Studies</b> |
|-----------------------------------------|

**Concentration: Early Childhood Multicultural Education PreK –Grade 3 Licensure****Concentration Core Curriculum (lower division) \_\_\_\_\_ 29 Credits**

|          |                                                        |   |
|----------|--------------------------------------------------------|---|
| FCS 101  | Child Growth, Development and Learning                 | 3 |
| FCS 103  | Health, Safety, & Nutrition                            | 2 |
| FCS 111  | Family and Community Collaboration                     | 3 |
| FCS 115  | Guiding Young Children                                 | 3 |
| FCS 117  | Curriculum Development through Play                    | 3 |
| FCS 117L | Curriculum Development through Play Practicum          | 2 |
| FCS 202  | Introduction to Language, Literacy, & Reading          | 3 |
| FCS 217  | Curriculum Development & Implementation Age 3 to Gr. 3 | 3 |
| FCS 217L | Curriculum Development & Implementation Practicum      | 2 |
| FCS 220  | Assessment of Children & Evaluation of Programs        | 3 |
| FCS 230  | Professionalism                                        | 2 |

**Concentration Core Curriculum (upper division) \_\_\_\_\_ 9 Credits**

|         |                                                    |   |
|---------|----------------------------------------------------|---|
| FCS 311 | Family, Language and Culture                       | 3 |
| FCS 321 | Young Children with Diverse Abilities              | 3 |
| FCS 401 | Research in Child Growth, Development and Learning | 3 |

**Pre K to Grade 3 Professional courses (upper division) \_\_\_\_\_ 24 Credits**

|          |                                                            |   |
|----------|------------------------------------------------------------|---|
| FCS 402  | Teaching and Learning Reading and Writing                  | 3 |
| FCS 406  | Teaching and Learning Math and Science                     | 4 |
| FCS 408  | Teaching and Learning Social Studies, Fine Arts & Movement | 3 |
| FCS 417L | Teaching and Learning Practicum                            | 2 |
| FCS 440  | Student Teaching Seminar                                   | 3 |
| FCS 440L | Student Teaching                                           | 9 |

**Concentration Requirements \_\_\_\_\_ 12 Credits**

|          |                                                             |   |
|----------|-------------------------------------------------------------|---|
| LLSS 175 | Foundations of American Indian Education                    | 3 |
| LLSS 453 | Theoretical and Cultural Foundations of Bilingual Education | 3 |
| EDPY472  | Classroom Assessment                                        | 3 |
| FCS 105  | Introduction to Family and Child Studies                    | 3 |

**Total Professional Courses \_\_\_\_\_ 74 Credits**

|                                                        |     |
|--------------------------------------------------------|-----|
| Total Credits<br>(including 40 credits upper division) | 121 |
| Concentration Required Courses                         | 74  |
| Gen Ed Courses                                         | 47  |

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**Family and Child Studies**  
**General Education Requirements – ECME PreK – Grade 3 Licensure**  
**Concentration**  
**(Total Credits = 47)**

---

**AREA 1: Writing and Speaking – 9 credit hours**

ENGL 110 OR ENGL 111/112 OR 113 AND ENGL 120

Choose 1 additional course from the following: ENGL 219, ENGL 220, CJ 130,

**AREA 2: Mathematics – 6 credit hours**

STAT 145, Math 215

**AREA 3: Physical and Natural Sciences – 8 credit hours**

NTSC 261L: Physical Science (4cr)

NTSC 262L: Life Science (4cr)

NTSC 263L: Environmental Science (4cr)

**AREA 4: Social and Behavioral Sciences – 9 credit hours. Choose 3 courses from the following:****AFTS / CCS / NATV / SUST / WMST 109:** ECON 105: Intro to Macroeconomics**POLS 110:** The Political World**AMST 182:** Intro to Env. Sci. &**CRP 181:** Intro to Environmental**POLS 220:** Comparative**AMST 185:** Race, Class & Ethnicity**ENGF 200:** Technology in Society**POLS 240:** International**ANTH 101:** Intro to Anthropology**GEOG 102:** Human Geography**SOC 101:** Intro to Sociology**ANTH 130:** Cultures of the World**LING 101:** Intro to Linguistics**UHON 204:** Individual &**PSY 105:** General Psychology

Collective

**AREA 5: Humanities – 9 credit hours: Choose 3 courses from the following:****HIST 101/L:** Western Civilization (to 1648) OR **HIST 102/L:** Western Civilization (from 1648)**HIST 161/L:** History of the US to 1877 OR **HIST 162/L:** History of the US since 1877**HIST 260:** History of New Mexico**AREA 6: Foreign Language – 3 credit hours:**

One course chosen from any lower-division non-English language offerings from the Dept. of Linguistics (including Sign Language), Spanish and Portuguese, Foreign Languages and Literatures, and foreign languages in other depts. and programs (except Latin 105).

**AREA 7: Fine Arts – 3 credit hours:****ARTE 214:** Art in the Elementary and Special Education Classroom

**B.A. in Family and Child Studies****(Arts and Sciences Students)****Major: Family and Child Studies (proposed)****FCS Core Curriculum \_\_\_\_\_ 12 Credits**

|         |                                                        |   |
|---------|--------------------------------------------------------|---|
| FCS 105 | Introduction to Family and Child Studies               | 3 |
| FCS 305 | Research and Evaluation in Family and Child Studies    | 3 |
| FCS 481 | Public Policy and Advocacy in Family and Child Studies | 3 |
| FCS 484 | The Sociocultural Context of Children and Families     | 3 |

**Other Required Curriculum \_\_\_\_\_ 12 Credits**

|         |                                   |   |
|---------|-----------------------------------|---|
| FCS 213 | Marriage and Family Relationships | 3 |
| FCS 312 | Parent-Child Interactions         | 3 |
| FCS 343 | Family Management Theories        | 3 |
| FCS 395 | Field Experience                  | 3 |

**Additional FCS Curriculum \_\_\_\_\_ 12 Credits****Total Required Hours \_\_\_\_\_ 36 Credits**


---

To fulfill additional 12 FCS credits, take any four courses from the list below:

|         |                                               |   |
|---------|-----------------------------------------------|---|
| FCS 203 | Infant Growth and Development                 | 3 |
| FCS 304 | Growth and Development in Middle Childhood    | 3 |
| FCS 310 | Friends and Intimate Relationships            | 3 |
| FCS 311 | Family Language and Culture                   | 3 |
| FCS 313 | Family Theories and Contemporary Lifestyles   | 3 |
| FCS 315 | Adolescent Development in the Family          | 3 |
| FCS 321 | Young Children with Diverse Abilities         | 3 |
| FCS 341 | Ecological Aspects of Housing                 | 3 |
| FCS 344 | Consumer Decisions                            | 3 |
| FCS 401 | Research in Child Growth, Dev. & Learning     | 3 |
| FCS 403 | Growth and Development of the Preschool Child | 3 |
| FCS 411 | Marriage and Family Life Education            | 3 |
| FCS 412 | Fathering                                     | 3 |
| FCS 416 | Adult Development in the Family               | 3 |
| FCS 443 | Application of Family Management Theories     | 3 |

\* For Minor and General Education Requisites, please consult with your advisor in your College.





|                                         |
|-----------------------------------------|
| <b>Family and Child Studies Program</b> |
|-----------------------------------------|

Page 1 of 1

**Minor:****Family and Child Studies (proposed)****Family and Child Studies Courses****FCS Core Curriculum** \_\_\_\_\_ **12 Credits**

|         |                                                        |   |
|---------|--------------------------------------------------------|---|
| FCS 105 | Introduction to Family and Child Studies               | 3 |
| FCS 305 | Research and Evaluation in Family and Child Studies    | 3 |
| FCS 481 | Public Policy and Advocacy in Family and Child Studies | 3 |
| FCS 484 | The Sociocultural Context of Children and Families     | 3 |

**Additional Courses** \_\_\_\_\_ **6 Credits**

|         |                                                        |   |
|---------|--------------------------------------------------------|---|
| FCS 202 | Introduction to Language, Literacy, & Reading          | 3 |
| FCS 203 | Infant Growth and Development                          | 3 |
| FCS 213 | Marriage and Family Relationships                      | 3 |
| FCS 217 | Curriculum Development & Implementation Age 3 to Gr. 3 | 3 |
| FCS 220 | Assessment of Children & Evaluation of Programs        | 3 |
| FCS 304 | Growth and Development in Middle Childhood             | 3 |
| FCS 310 | Friends and Intimate Relationships                     | 3 |
| FCS 312 | Parent-Child Interactions                              | 3 |
| FCS 313 | Family Theories and Contemporary Lifestyles            | 3 |
| FCS 315 | Adolescent Development in the Family                   | 3 |
| FCS 316 | Early Childhood Pedagogy & Curriculum                  | 3 |
| FCS 321 | Young Children with Diverse Abilities                  | 3 |
| FCS 341 | Ecological Aspects of Housing                          | 3 |
| FCS 343 | Family Management Theories                             | 3 |
| FCS 344 | Consumer Decisions                                     | 3 |
| FCS 395 | Field Experience                                       | 3 |
| FCS 401 | Research in Child Growth, Development and Learning     | 3 |
| FCS 403 | Growth and Development of the Preschool Child          | 3 |
| FCS 405 | Advanced Caregiving for Infants and Toddlers           | 3 |
| FCS 411 | Marriage and Family Life Education                     | 3 |
| FCS 412 | Fathering                                              | 3 |
| FCS 416 | Adult Development in the Family                        | 3 |
| FCS 443 | Application of Family Management Theories              | 3 |

**Total FCS Required Hours** \_\_\_\_\_ **18 Credits**

**Current user: cclark48 / Comments (8) / Form Transaction Log**  
**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1701

Fields marked with \* are required

Name of Initiator: Ziarat Hossain Email: [zhossain@unm.edu](mailto:zhossain@unm.edu) Phone Number: 505 277-4162 Date: 10-13-2015

Associated Forms exist?\* No

Initiator's Title\* Professor: Individual Family Comm Educ I

Faculty Contact\* Zia Hossain

Administrative Contact\* Cynthia Salas

Department\* Individual, Family and Community Education

Admin Email\* [casalas@unm.edu](mailto:casalas@unm.edu)

Branch

Admin Phone\* 277-4318

Proposed effective term

Semester Fall Year 2016

## Course Information

Select Appropriate Program\* Undergraduate Degree Program

Name of New or Existing Program\* BS Family Studies

Select Category \* Degree Degree Type B.S.

Select Action Revision

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[FCS UNM Catalog 10.15.15 2016-2017.docx](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

[THIS FORM REQUESTS REQUIREMENTS REVISIONS AND NAME CHANGE.]see attached document

[Revision of the Family Studies.docx](#)**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[FCS Undergraduate 10.15.15 Executive Summary.docx](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[View Comments on this Form](#)  
[Comment on this Form or Review Forms](#)

Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001

## FAMILY AND CHILD STUDIES

Jay Parkes, Department Chairperson  
Department of Individual, Family and Community Education  
Family and Child Studies, Simpson Hall  
MSC05 3040  
1 University of New Mexico Albuquerque, NM 87131-0001  
(505) 277-4535

### Professors

Ziarat Hossain, Ph.D., Syracuse University  
Frank S. Kessel, Ph.D., University of Minnesota

### Associate Professors

David J. Atencio, Ph.D., Stanford University  
Cathy Gutierrez-Gomez, Ed.D., University of North Texas

### Assistant Professor

Ryan Kelly, Ph.D., Auburn University

### Professors Emeritae

Estella A. Martinez, Ph.D., Michigan State University  
Mary Smith, Ph.D., Colorado State University  
Virginia C. Shipman, Ph.D., University of Pittsburgh  
Pauline Turner, Ph.D., University of Texas

### Contact

For program information and application for undergraduate admission, please contact: The Center for Student Success located in Travelstead Hall in the College of Education. Students who have not been admitted to the university can schedule a meeting at: <https://teachnm.wufoo.com/forms/nonunm-student-appointment-form/>, students admitted to the university can schedule a meeting at: College of Education Center for Student Success, Travelstead Hall, (505) 277-3190, and Family and Child Studies Program office at Simpson Hall, (505) 277-4535.

### Vision

Enhancing the lives of children and families through interrelated theory, research, and practice that address the diverse and complex nature of their futures.

### Mission

Our mission is to foster an interdisciplinary scholarly environment that enables early childhood

professionals, family service providers, and researchers in the field of family and child study to

- cultivate and disseminate systematic information and grounded knowledge about the diverse nature of families in contemporary societies
- understand and critically respond to the dynamic complexities of human development across the lifespan
- foster leadership in addressing the multiple facets of early childhood development

### **Focus**

The Family and Child Studies Program (undergraduate through doctoral levels) focuses on understanding the complex influences, relationships, and ecologies of development across the lifespan. Our degree programs prepare students to promote the optimal well-being of families and individuals, recognizing that characteristics and needs of families change across the lifespan and within multiple and diverse contexts. Families provide children's first learning environments, which impact children's education and learning throughout their lives. The preparation of professionals in education is grounded in the deep understanding of families and children. Thus, the Family and Child Studies Program makes a central contribution to preparation of professionals in the College of Education. The program provides an option for professionals to become licensed to teach Pre-K to Grade Three in New Mexico, as well as an option to become nationally certified family life educators.

## **Majors and Degrees**

### **Family and Child Studies, B.S.**

Concentrations:

Human Development and Family Relations (HDFR)

Early Child Education and Development (ECED)

Early Childhood Multicultural Education Licensure (ECMEL) – Pre K to Grade 3

### **Family and Child Studies, B.A.**

Students from the College of Arts and Sciences can earn a B.A. degree in Family and Child Studies. See College of Arts and Sciences for specific program requirements.

Students wishing to apply for the Certified Family Life Educator (CFLE) designation of the National Council on Family Relations refer to the NCFR web site. For details on requirements and application, see <http://www.ncfr.org>. Note that a course in human sexuality is required for the CFLE certification.

## Minor

### Family and Child Studies

Contact the Family and Child Studies Program, Simpson Hall, for more information and specific requirements.

## Major: Family and Child Studies (B.S.)

### Curriculum for HDFR Concentration (49 credits)

#### FCS Core (12 credits)

|                                                                |   |
|----------------------------------------------------------------|---|
| FCS 105 Introduction of Family and Child Studies               | 3 |
| FCS 305 Research and Evaluation in Family and Child Studies    | 3 |
| FCS 481 Public Policy and Advocacy in Family and Child Studies | 3 |
| FCS 484 The Sociocultural Context of Children and Families     | 3 |

#### HDFR Concentration Core (13 credits)

|                                                       |   |
|-------------------------------------------------------|---|
| FCS 213 Marriage and Family Relationships             | 3 |
| FCS 312 Parent-Child Interactions                     | 3 |
| FCS 395 Field Experience                              | 3 |
| FCS 403 Growth and Development of the Preschool Child | 3 |
| FCS 407L Preschool Child Lab                          | 1 |

#### Family Relations (9 credits)

|                                            |   |
|--------------------------------------------|---|
| FCS 310 Friends and Intimate Relationships | 3 |
| FCS 313 Family Theories                    | 3 |
| FCS 411 Marriage and Family Life Education | 3 |
| FCS 412 Fathering                          | 3 |

#### Human Development (9 credits)

|                                                    |   |
|----------------------------------------------------|---|
| FCS 203 Infant Growth and Development              | 3 |
| FCS 304 Growth and Development in Middle Childhood | 3 |
| FCS 315 Adolescent Development in the Family       | 3 |
| FCS 416 Adult Development in the Family            | 3 |

#### Family Resource Management (6 credits)

|                                                   |   |
|---------------------------------------------------|---|
| FCS 341 Ecological Aspects of Housing             | 3 |
| FCS 343 Family Management Theories                | 3 |
| FCS 344 Consumer Decisions                        | 3 |
| FCS 443 Application of Family Management Theories | 3 |

Students pursuing HDFR concentration must take FCS 403 and FCS 407L concurrently. Also, 67 FCS credits are required to major in FCS (HDFR concentration) without a minor. Upon program approval, students may count up to 6 hours of FCS 391 towards program requirements.

## General Education Requirements (40 credits)

### AREA 1: Writing and Speaking – 9 credit hours

ENGL 110 OR ENGL 111/112 OR 113      AND ENGL 120

Choose 1 additional course from the following: ENGL 219, ENGL 220, CJ 130, PHIL 156, UHON 201

### AREA 2: Mathematics – 3 credit hours

STAT 145

### AREA 3: Physical and Natural Sciences – 7 credit hours

BIO 110/112L OR BIO 123/124L AND choose 1 additional course from the following:

**ANTH 120:** Arch. Method & Theory

**ANTH 122L:** Req. Lab for ANTH 120 (1cr)  
(1cr)

**Pre-Spring 2013 ANTH 121L:** Arch. M&T(4cr)

**ANTH 150:** Evol & Human Emergence

**ANTH 151L:** Opt. Lab for ANTH 150 (1cr)

**ANTH 160:** Human Life Course

**ANTH 161L:** Opt. Lab for ANTH 160 (1cr)

**ASTR 101:** Intro to Astronomy

**ASTR 101L:** Opt. Lab for ASTR 101 (1cr)

**BIOL 110:** Biology for Non-Majors

**BIOL 112:** Opt. Lab for BIOL 110 (1cr)

**CHEM 101:** Chemistry in Our Community

**CHEM 111L:** Elem of General Chemistry (4cr)

**CHEM 121:** General Chemistry I

**CHEM 123L:** Req. Lab for Chem 121 (1cr)

**CHEM 122:** General Chemistry II

**CHEM 124L:** Req. Lab for Chem 122 (1cr)

**CHEM 131L:** (Honors) Gen. Chemistry I (4cr)

**CHEM 132L:** (Honors) Gen. Chemistry II (4cr)

**EPS 101:** Intro to Geology

**EPS 105L:** Opt. Lab for EPS 101 (1cr)

**EPS 201L:** Earth History (4cr)

**ENVS 101:** The Blue Planet

**ENVS 102L:** Opt. Lab for ENVS 101

**GEOG 101:** Physical Geography

**GEOG 105L:** Opt. Lab for GEOG 101 (1cr)

**PHYC 102:** Introduction to Physics

**PHYC 102L:** Opt. Lab for PHYC 102

**PHYC 105:** Physics and Society

**PHYC 151:** General Physics

**PHYC 151L:** Opt. Lab for PHYC 151 (1cr)

**PHYC 152:** General Physics

**PHYC 152L:** Opt Lab for PHYC 152 (1cr)

**PHYC 160:** General Physics

**PHYC 160L:** Opt. Lab for PHYC 160 (1cr)

**PHYC 161:** General Physics

**PHYC 161L:** Opt. Lab for PHYC 161 (1cr)

**\*NTSC 261L:** Physical Science (4cr)

**\*NTSC 262L:** Life Science (4cr)

**\*NTSC 263L:** Environmental Science (4cr)

**UHON 203:** Science in the 21st Century

### AREA 4: Social and Behavioral Sciences – 6 credit hours. Choose 2 courses from the following:

**AFTS / CCS / NATV / SUST / WMST 109:**

Intro to Comparative and Global Ethnic Societies

**AMST 182:** Intro to Env. Sci. & Technology

**AMST 185:** Race, Class & Ethnicity

**ANTH 101:** Intro to Anthropology

**ANTH 130:** Cultures of the World

**PSY 105:** General Psychology

**ECON 105:** Intro to Macroeconomics

**ECON 106:** Intro to Microeconomics

**CRP 181:** Intro to Environmental Problems

**ENGF 200:** Technology in Society

**GEOG 102:** Human Geography

**LING 101:** Intro to Linguistics

**POLS 110:** The Political World

**POLS 200:** American Politics

**POLS 220:** Comparative Politics

**POLS 240:** International Politics

**SOC 101:** Intro to Sociology

**UHON 204:** Individual & Collective

### AREA 5: Humanities – 6 credit hours: Choose 2 courses from the following

**AFST 104:** Intro to Africana Studies  
Studies

**AMST 186:** Intro to Southwest Studies

**CCS 201:** Intro to Chicana & Chicano Studies

**CLST 107:** Greek Mythology

**CLST 204:** Greek Civilization

**CLST 205:** Roman Civilization

**CLCS 223/224:** Literary Questions

**COMP 222:** Fairy and Folk Tales

**COMP 224:** Literary Questions

**MLNG 101:** Languages

**ENGL 150:** Study of Literature

**ENGL 292/293:** World Literatures

**GEOG 140:** World Regional Geography

**HIST 101/L:** Western Civilization (to 1648)

**HIST 102/L:** Western Civilization (from 1648)

**HIST 161/L:** History of the US to 1877

**HIST 162:** History of the US since 1877

**HIST 181:** History of Early Latin America

**HIST 182:** Modern Latin American History

**NATV 150:** Intro to Native American

**PHIL 101:** Intro to Philosophical Problems

**PHIL 201:** Greek Thought

**PHIL 202:** From Descartes to Kant

**RELG 107:** Living World Religions

**RELG 263:** Eastern Religions

**RELG 264:** Western Religions

**UHON - Honors Legacy Sem, 100-200 level**

**UHON 205:** Humanities Society & Culture

### AREA 6: Foreign Language – 3 credit hours

One course chosen from any lower-division non-English language offerings from the Dept. of Linguistics (including Sign Language), Spanish and Portuguese, Foreign Languages and Literatures, and foreign languages in other depts. and programs (except Latin 105).

### AREA 7: Fine Arts – 3 credit hours required. Choose 1 course from the following:

**ARCH 121:** Intro to Architecture

**DANC 105:** Dance Appreciation

**THEA 105:** Intro to Theatre Appreciation

**Pre-Fall 2010 Arch 101:** Intro to Architecture  
Appreciation

**ARTH 101:** Intro to Art  
Perspective

**ARTH 201:** History of Art 1

**ARTH 202:** History of Art 2

**FA 284:** Experiencing the Arts

**MA 210:** Intro to Film and Study

**MUS 139:** Music Appreciation

**MUS 142:** Rock Music Appreciation

**Pre-Fall 2010 THEA 122:** Theatre

**UHON 207:** Fine Art as Global

Any 3 credit hour studio or performance course offered by the Department of Art and Art History, Music, Theatre and Dance, Media Arts or IFDM.

### **Additional Requirement - 3 credits hours**

NUTR 120 OR 224

In addition, the student must complete unrestricted electives for a minimum total of 120 credit hours. Consult the program faculty for specific courses. The student must complete 40 hours above 300. Grades of C or better are required in all General Education and Family and Child Studies courses used to meet the HDFR requirement.

## **Curriculum for ECED Concentration (69 credits)**

### **FCS Core (12 credits)**

|                                                                |   |
|----------------------------------------------------------------|---|
| FCS 105 Introduction to Family and Child Studies               | 3 |
| FCS 305 Research and Evaluation in Family and Child Studies    | 3 |
| FCS 481 Public Policy and Advocacy in Family and Child Studies | 3 |
| FCS 484 The Sociocultural Context of Children and Families     | 3 |

### **ECED Concentration (lower division - 12 credits)**

|                                                                |   |
|----------------------------------------------------------------|---|
| FCS 101 Child Growth, Development and Learning                 | 3 |
| FCS 102 Carpe Noctem: Sleep, Health & the Family               | 3 |
| FCS 103 Health, Safety, & Nutrition                            | 2 |
| FCS 111 Family and Community Collaboration                     | 3 |
| FCS 115 Guiding Young Children                                 | 3 |
| FCS 117 Curriculum Development through Play                    | 3 |
| FCS 202 Introduction to Language, Literacy, & Reading          | 3 |
| FCS 203 Infant Growth and Development                          | 3 |
| FCS 213 Marriage and Family Relationships                      | 3 |
| FCS 217 Curriculum Development & Implementation Age 3 to Gr. 3 | 3 |
| FCS 220 Assessment of Children & Evaluation of Programs        | 3 |
| FCS 230 Professionalism                                        | 2 |

### **ECED Concentration Core (upper division - 21 credits)**

|                                                            |   |
|------------------------------------------------------------|---|
| FCS 302 Emergent Literacy                                  | 3 |
| FCS 311 Family, Language and Culture                       | 3 |
| FCS 312 Parent-Child Interactions                          | 3 |
| FCS 316 Early Childhood Pedagogy & Curriculum              | 3 |
| FCS 401 Research in Child Growth, Development and Learning | 3 |
| FCS 403 Growth and Development of the Pre-School Child     | 3 |
| FCS 405 Advanced Caregiving for Infants and Toddlers       | 3 |

### **FCS Electives (upper division - 24 credits)**

|                                                    |   |
|----------------------------------------------------|---|
| FCS 304 Growth and Development in Middle Childhood | 3 |
|----------------------------------------------------|---|

|                                                     |   |
|-----------------------------------------------------|---|
| FCS 310 Friends and Intimate Relationships          | 3 |
| FCS 313 Family Theories and Contemporary Lifestyles | 3 |
| FCS 315 Adolescent Development in the Family        | 3 |
| FCS 321 Young Children with Diverse Abilities       | 3 |
| FCS 341 Ecological Aspects of Housing               | 3 |
| FCS 343 Family Management Theories                  | 3 |
| FCS 344 Consumer Decisions                          | 3 |
| FCS 395 Field Experience                            | 3 |
| FCS 407L Pre-School Child Lab                       | 1 |
| FCS 411 Marriage and Family Life Education          | 3 |
| FCS 412 Fathering                                   | 3 |
| FCS 416 Adult Development in the Family             | 3 |
| FCS 443 Application of Family Management Theories   | 3 |

## **General Education Requirements (40 credits)**

### **AREA 1: Writing and Speaking – 9 credit hours**

ENGL 110 OR ENGL 111/112 OR 113 AND ENGL 120

Choose 1 additional course from the following: ENGL 219, ENGL 220, CJ 130, PHIL 156, UHON 201

### **AREA 2: Mathematics – 3 credit hours (choose one of the following)**

STAT 145, Math 129, or Math 215

### **AREA 3: Physical and Natural Sciences – 7 credit hours**

BIO 110/112L OR BIO 123/124L AND choose 1 additional course from the following:

|                                                  |                                                    |                                                |
|--------------------------------------------------|----------------------------------------------------|------------------------------------------------|
| <b>ANTH 120:</b> Arch. Method & Theory           | <b>CHEM 101:</b> Chemistry in Our Community        | <b>PHYC 102:</b> Introduction to Physics       |
| <b>ANTH 122L:</b> Req. Lab for ANTH 120 (1cr)    | <b>CHEM 111L:</b> Elem of General Chemistry (4cr)  | <b>PHYC 102L:</b> Opt. Lab for PHYC 102        |
| <b>Pre-Spring 2013 ANTH 121L:</b> Arch. M&T(4cr) | <b>CHEM 121:</b> General Chemistry I               | <b>PHYC 105:</b> Physics and Society           |
| <b>ANTH 150:</b> Evol & Human Emergence          | <b>CHEM 123L:</b> Req. Lab for Chem 121 (1cr)      | <b>PHYC 151:</b> General Physics               |
| <b>ANTH 151L:</b> Opt. Lab for ANTH 150 (1cr)    | <b>CHEM 122:</b> General Chemistry II              | <b>PHYC 151L:</b> Opt. Lab for PHYC 151 (1cr)  |
| <b>ANTH 160:</b> Human Life Course               | <b>CHEM 124L:</b> Req. Lab for Chem 122 (1cr)      | <b>PHYC 152:</b> General Physics               |
| <b>ANTH 161L:</b> Opt. Lab for ANTH 160 (1cr)    | <b>CHEM 131L:</b> (Honors) Gen. Chemistry I (4cr)  | <b>PHYC 152L:</b> Opt Lab for PHYC 152 (1cr)   |
| <b>ASTR 101:</b> Intro to Astronomy              | <b>CHEM 132L:</b> (Honors) Gen. Chemistry II (4cr) | <b>PHYC 160:</b> General Physics               |
| <b>ASTR 101L:</b> Opt. Lab for ASTR 101 (1cr)    | <b>EPS 101:</b> Intro to Geology                   | <b>PHYC 160L:</b> Opt. Lab for PHYC 160 (1cr)  |
| <b>BIOL 110:</b> Biology for Non-Majors          | <b>EPS 105L:</b> Opt. Lab for EPS 101 (1cr)        | <b>PHYC 161:</b> General Physics               |
| <b>BIOL 112:</b> Opt. Lab for BIOL 110 (1cr)     | <b>EPS 201L:</b> Earth History (4cr)               | <b>PHYC 161L:</b> Opt. Lab for PHYC 161 (1cr)  |
|                                                  | <b>ENVS 101:</b> The Blue Planet                   | <b>*NTSC 261L:</b> Physical Science (4cr)      |
|                                                  | <b>ENVS 102L:</b> Opt. Lab for ENVS 101            | <b>*NTSC 262L:</b> Life Science (4cr)          |
|                                                  | <b>GEOG 101:</b> Physical Geography                | <b>*NTSC 263L:</b> Environmental Science (4cr) |
|                                                  | <b>GEOG 105L:</b> Opt. Lab for GEOG 101 (1cr)      | <b>UHON 203:</b> Science in the 21st Century   |

### **AREA 4: Social and Behavioral Sciences – 6 credit hours. Choose 2 courses from the following:**

|                                                                                                 |                                                 |                                          |
|-------------------------------------------------------------------------------------------------|-------------------------------------------------|------------------------------------------|
| <b>AFTS / CCS / NATV / SUST / WMST 109:</b><br>Intro to Comparative and Global Ethnic Societies | <b>ECON 105:</b> Intro to Macroeconomics        | <b>POLS 110:</b> The Political World     |
| <b>AMST 182:</b> Intro to Env. Sci. & Technology                                                | <b>ECON 106:</b> Intro to Microeconomics        | <b>POLS 200:</b> American Politics       |
| <b>AMST 185:</b> Race, Class & Ethnicity                                                        | <b>CRP 181:</b> Intro to Environmental Problems | <b>POLS 220:</b> Comparative Politics    |
| <b>ANTH 101:</b> Intro to Anthropology                                                          | <b>ENG 200:</b> Technology in Society           | <b>POLS 240:</b> International Politics  |
| <b>ANTH 130:</b> Cultures of the World                                                          | <b>GEOG 102:</b> Human Geography                | <b>SOC 101:</b> Intro to Sociology       |
| <b>PSY 105:</b> General Psychology                                                              | <b>LING 101:</b> Intro to Linguistics           | <b>UHON 204:</b> Individual & Collective |

### **AREA 5: Humanities – 6 credit hours: Choose 2 courses from the following**

|                                            |                                      |                                           |
|--------------------------------------------|--------------------------------------|-------------------------------------------|
| <b>AFST 104:</b> Intro to Africana Studies | <b>ENGL 150:</b> Study of Literature | <b>NATV 150:</b> Intro to Native American |
|--------------------------------------------|--------------------------------------|-------------------------------------------|



#### Studies

**AMST 186:** Intro to Southwest Studies  
**CCS 201:** Intro to Chicana & Chicano Studies  
**CLST 107:** Greek Mythology  
**CLST 204:** Greek Civilization  
**CLST 205:** Roman Civilization  
**CLCS 223/224:** Literary Questions  
**COMP 222:** Fairy and Folk Tales  
**COMP 224:** Literary Questions  
**MLNG 101:** Languages

**ENGL 292/293:** World Literatures  
**GEOG 140:** World Regional Geography  
**HIST 101/L:** Western Civilization (to 1648)  
**HIST 102/L:** Western Civilization (from 1648)  
**HIST 161/L:** History of the US to 1877  
**HIST 162:** History of the US since 1877  
**HIST 181:** History of Early Latin America  
**HIST 182:** Modern Latin American History

**PHIL 101:** Intro to Philosophical Problems  
**PHIL 201:** Greek Thought  
**PHIL 202:** From Descartes to Kant  
**RELG 107:** Living World Religions  
**RELG 263:** Eastern Religions  
**RELG 264:** Western Religions  
**UHON** - Honors Legacy Sem, 100-200 level  
**UHON 205:** Humanities Society & Culture

#### **AREA 6: Foreign Language – 3 credit hours**

One course chosen from any lower-division non-English language offerings from the Dept. of Linguistics (including Sign Language), Spanish and Portuguese, Foreign Languages and Literatures, and foreign languages in other depts. and programs (except Latin 105).

#### **AREA 7: Fine Arts – 3 credit hours required. Choose 1 course from the following:**

**ARCH 121:** Intro to Architecture  
**Pre-Fall 2010 Arch 101:** Intro to Architecture Appreciation  
**ARTH 101:** Intro to Art Perspective  
**ARTH 201:** History of Art 1  
**ARTH 202:** History of Art 2

**DANC 105:** Dance Appreciation  
**FA 284:** Experiencing the Arts  
**MA 210:** Intro to Film and Study  
**MUS 139:** Music Appreciation  
**MUS 142:** Rock Music Appreciation

**THEA 105:** Intro to Theatre Appreciation  
**Pre-Fall 2010 THEA 122:** Theatre  
**UHON 207:** Fine Art as Global

Any 3 credit hour studio or performance course offered by the Department of Art and Art History, Music, Theatre and Dance, Media Arts or IFDM.

#### **Additional Requirement - 3 credits hours**

NUTR 120 OR 224

In addition, the student must complete unrestricted electives for a minimum total of 120 credit hours. Consult the program faculty for specific courses. The student must complete 40 hours above 300.

## **Curriculum for EC MEL Pre-K to Grade 3 Concentration (74 credits)**

### **Lower Division Core (29 credits)**

|          |                                                        |   |
|----------|--------------------------------------------------------|---|
| FCS 101  | Child Growth, Development and Learning                 | 3 |
| FCS 103  | Health, Safety, & Nutrition                            | 2 |
| FCS 111  | Family and Community Collaboration                     | 3 |
| FCS 115  | Guiding Young Children                                 | 3 |
| FCS 117  | Curriculum Development through Play                    | 3 |
| FCS 117L | Curriculum Development through Play Practicum          | 2 |
| FCS 202  | Introduction to Language, Literacy, & Reading          | 3 |
| FCS 217  | Curriculum Development & Implementation Age 3 to Gr. 3 | 3 |
| FCS 217L | Curriculum Development & Implementation Practicum      | 2 |
| FCS 220  | Assessment of Children & Evaluation of Programs        |   |
| FCS 230  | Professionalism                                        | 2 |

### **Concentration Core (upper division - 9 credits)**

|         |                                                    |   |
|---------|----------------------------------------------------|---|
| FCS 311 | Family, Language and Culture                       | 3 |
| FCS 321 | Young Children with Diverse Abilities              | 3 |
| FCS 401 | Research in Child Growth, Development and Learning | 3 |

### **Pre K to Grade 3 professional courses (upper division - 24 credits)**

|          |                                                            |   |
|----------|------------------------------------------------------------|---|
| FCS 402  | Teaching and Learning Reading and Writing                  | 3 |
| FCS 406  | Teaching and Learning Math and Science                     | 4 |
| FCS 408  | Teaching and Learning Social Studies, Fine Arts & Movement | 3 |
| FCS 417L | Teaching and Learning Practicum                            | 2 |
| FCS 440  | Student Teaching Seminar                                   | 3 |
| FCS 440L | Student Teaching                                           | 9 |

### **Concentration Requirements (12 credits)**

|          |                                                   |   |
|----------|---------------------------------------------------|---|
| LLSS 175 | Foundations of American Indian Education          | 3 |
| LLSS 453 | Theoretical and Cultural Foundations of Bilingual | 3 |
| EDPY472  | Classroom Assessment                              | 3 |
| FCS 105  | Introduction to Family and Child Studies          | 3 |

### **General Education Requirements (47 credits)**

#### **AREA 1: Writing and Speaking – 9 credit hours**

**ENGL 110 OR ENGL 111/112 OR 113 AND ENGL 120**

Choose 1 additional course from the following: **ENGL 219, ENGL 220, CJ 130,**

#### **AREA 2: Mathematics – 6 credit hours**

**STAT 145, Math 215**

**AREA 3: Physical and Natural Sciences – 8 credit hours**

**NTSC 261L:** Physical Science (4cr)

**NTSC 262L:** Life Science (4cr)

**NTSC 263L:** Environmental Science (4cr)

**AREA 4: Social and Behavioral Sciences – 9 credit hours**

Choose 3 courses from the following:

AFTS/CCS/NATV/SUST/WMST 109:

AMST 182: Introduction to environmental science and

AMST 185: Race, Class, & Ethnicity

ANTH 101: Introduction to Anthropology

ANTH 130: Cultures of the World

CRP 181: Introduction to Environmental

ENGF 200: Technology in Society

GEOG 102: Human Geography

LING 101: Introduction to Linguistics

POLS 110: The Political World

POLS 220: Comparative

POLS: 240: International

SOC 101: Introduction to Sociology

PSY 105: General Psychology

UHON 204: Individual and Collective

**AREA 5: Humanities – 9 credit hours**

Choose 3 courses from the following:

**HIST 101/L:** Western Civilization (to 1648) OR **HIST 102/L:** Western Civilization (from 1648)

**HIST 161/L:** History of the US to 1877 OR **HIST 162/L:** History of the US since 1877

**HIST 260:** History of New Mexico

**AREA 6: Foreign Language – 3 credit hours:**

One course chosen from any lower-division non-English language offerings from the Dept. of Linguistics (including Sign Language), Spanish and Portuguese, Foreign Languages and Literatures, and foreign languages in other depts. and programs (except Latin 105).

**AREA 7: Fine Arts – 3 credit hours:**

ARTE 214: Art in the Elementary and Special Education Classroom

## **Major: Family and Child Studies (B.A.)**

### **FCS Core (12 credits)**

|         |                                                        |   |
|---------|--------------------------------------------------------|---|
| FCS 105 | Introduction to Family and Child Studies               | 3 |
| FCS 305 | Research and Evaluation in Family and Child Studies    | 3 |
| FCS 481 | Public Policy and Advocacy in Family and Child Studies | 3 |
| FCS 484 | The Sociocultural Context of Children and Families     | 3 |

### **Other Required Core (12 credits)**

|         |                                   |   |
|---------|-----------------------------------|---|
| FCS 213 | Marriage and Family Relationships | 3 |
| FCS 312 | Parent-Child Interactions         | 3 |
| FCS 343 | Family Management Theories        | 3 |
| FCS 395 | Field Experience                  | 3 |

### **Additional FCS Curriculum (12 credits)**

|         |                                               |   |
|---------|-----------------------------------------------|---|
| FCS 203 | Infant Growth and Development                 | 3 |
| FCS 304 | Growth and Development in Middle Childhood    | 3 |
| FCS 310 | Friends and Intimate Relationships            | 3 |
| FCS 311 | Family Language and Culture                   | 3 |
| FCS 313 | Family Theories and Contemporary Lifestyles   | 3 |
| FCS 315 | Adolescent Development in the Family          | 3 |
| FCS 321 | Young Children with Diverse Abilities         | 3 |
| FCS 341 | Ecological Aspects of Housing                 | 3 |
| FCS 344 | Consumer Decisions                            | 3 |
| FCS 401 | Research in Child Growth, Dev. & Learning     | 3 |
| FCS 403 | Growth and Development of the Preschool Child | 3 |
| FCS 411 | Marriage and Family Life Education            | 3 |
| FCS 412 | Fathering                                     | 3 |
| FCS 416 | Adult Development in the Family               | 3 |
| FCS 443 | Application of Family Management Theories     | 3 |

B. A. FCS students, please consult with your advisor in your College for Minor and General Education Requisites.

## **Suggested Minor for FCS Students (18–21 credits)**

Anthropology

Communication and Journalism

Economics

English

Management

Psychology  
Sociology  
Women Studies

Note: See minor department for specific requirements and/or information. Also, be advised that minor is not a requirement for the College of Education students majoring in Family and Child Studies. A student without a minor must complete a total of 57 hours in Family and Child Studies.

## Curriculum for Family and Child Studies Minor

A Minor in Family and Child Studies consists of a total of 18 hours. The distribution of 18 hours is as follows:

### FCS Core (12 credits)

|         |                                                        |   |
|---------|--------------------------------------------------------|---|
| FCS 105 | Introduction to Family and Child Studies               | 3 |
| FCS 305 | Research and Evaluation in Family and Child Studies    | 3 |
| FCS 481 | Public Policy and Advocacy in Family and Child Studies | 3 |
| FCS 484 | The Sociocultural Context of Children and Families     | 3 |

### Additional FCS Curriculum (6 credits)

|         |                                                        |   |
|---------|--------------------------------------------------------|---|
| FCS 202 | Introduction to Language, Literacy, & Reading          | 3 |
| FCS 203 | Infant Growth and Development                          | 3 |
| FCS 213 | Marriage and Family Relationships                      | 3 |
| FCS 217 | Curriculum Development & Implementation Age 3 to Gr. 3 | 3 |
| FCS 220 | Assessment of Children & Evaluation of Programs        | 3 |
| FCS 304 | Growth and Development in Middle Childhood             | 3 |
| FCS 310 | Friends and Intimate Relationships                     | 3 |
| FCS 312 | Parent-Child Interactions                              | 3 |
| FCS 313 | Family Theories and Contemporary Lifestyles            | 3 |
| FCS 315 | Adolescent Development in the Family                   | 3 |
| FCS 316 | Early Childhood Pedagogy & Curriculum                  | 3 |
| FCS 321 | Young Children with Diverse Abilities                  | 3 |
| FCS 341 | Ecological Aspects of Housing                          | 3 |
| FCS 343 | Family Management Theories                             | 3 |
| FCS 344 | Consumer Decisions                                     | 3 |
| FCS 395 | Field Experience I                                     | 3 |
| FCS 401 | Research in Child Growth, Development and Learning     | 3 |
| FCS 403 | Growth and Development of the Preschool Child          | 3 |
| FCS 405 | Advanced Caregiving for Infants and Toddlers           | 3 |
| FCS 411 | Marriage and Family Life Education                     | 3 |
| FCS 412 | Fathering                                              | 3 |
| FCS 416 | Adult Development in the Family                        | 3 |
| FCS 443 | Application of Family Management Theories              | 3 |

Nine hours must be numbered above 300. Grades of C or better are required in all Family and Child Studies courses used to meet this requirement. This is a non-teaching minor. If the courses are required in both the major and the minor, an equivalent number of approved hours shall be added to the total hour requirement.

In addition, the student must complete unrestricted electives for minimum total of 120 credit hours. Consult the program faculty for specific courses. The student must complete 40 hours above 300.

This minor is available for majors in all departments with approval from major advisors.

## **Departmental Honors**

The Departmental Honors program is open to Family and Child Studies majors who have an overall GPA of at least 3.50. Students must seek advisement from a faculty member willing to serve as mentor for the honors courses and research. An Honors thesis is written during the student's final semester. Required courses are FCS 497, 498, and 499. These courses are in addition to those required for the major (and/or concentration).

## **Family and Child Studies (FCS)**

### **101. Child Growth, Development, and Learning. (3)**

This basic course in the growth, development, and learning of young children, provides foundational knowledge of how young children grow, develop and learn.

**102.** Students will learn about issues in sleep research with a focus on the examination of sleep in the family context. The course will emphasize how family processes influence sleep across development and vice versa.

### **103. Health, Safety, and Nutrition. (2)**

This course provides information related to standards and practices that promote children's physical and mental well-being, sound nutritional practices, and maintenance of safe learning environments.

### **105. Introduction to Family and Child Studies (3)**

This course is designed to provide students with a broad introduction to primary concepts, theories, and research methods in Family and Child Studies from an ecological and interdisciplinary perspective.

### **111. Family and Community Collaboration. (3)**

This basic course examines the involvement of families from diverse cultural & linguistic backgrounds in early childhood programs. Ways to establish collaborative relationships with parents and others involved with children in early childhood settings are discussed.

### **115. Guiding Young Children. (3)**

This course explores theories of child guidance and practical applications. It provides developmentally appropriate methods for guiding children, effective strategies and suggestions for facilitating positive social interactions.

### **117. Curriculum Development through Play Birth to Age 4. (3)**

This beginning curriculum course focuses on developmentally appropriate content in early childhood programs and developmentally appropriate curriculum integration into teaching and learning experiences. Co-requisite: 117L

### **117L. Practicum - Birth through Age 4. (2)**

This course provides opportunities for students to apply knowledge gained from ECME 117 and develop skills in planning developmentally appropriate learning experiences for young children including children with special needs. Co-requisite: 117

### **202. Introduction to Language Literacy and Reading. (3)**

This is a basic course in children's emergent literacy and reading development: Ways to foster phonemic awareness, literacy problem solving skills, fluency, vocabulary, comprehension, and language development are explored.

**203. Infant Growth and Development. (3)**

This focuses on basic needs and growth factors of the child with emphasis on the prenatal period, infancy, and the through the second year.

**213. Marriage and Family Relationships. (3)**

The course provides an overview of significant research and theories in premarital, marital, and family relationships.

**217. Curriculum Development and Implementation. (3)**

This basic course focuses on the learning environment and the implementation of curriculum in early childhood programs Age 3 to Grade 3. Various curriculum models and teaching and learning strategies are explored. Co-requisite: 217L

**217L. Practicum Age 3 to Grade Three. (2)**

This course provides opportunities to apply knowledge gained in the above course and develop skills in planning learning environments and implementing curriculum for young children including those with special needs. Co-requisite: 217

**220. Assessment of Children & Evaluation of Programs I. (3)**

This basic course familiarizes students with a variety of culturally appropriate assessment methods and instruments, and the development and use of formative and summative program evaluation to ensure quality.

**230. Professionalism. (2)**

This course provides a broad-based orientation to the field of early care and education. Early childhood history, philosophy, ethics and advocacy are introduced.

**302. Emergent Literacy. (3)**

This advanced course prepares early childhood professionals to teach reading and writing in Birth to PreK classrooms. This course covers a broad spectrum of topics relevant to the teaching of reading.

**304. Growth and Development in Middle Childhood. (3)**

This course discusses principles of growth and development for 6 to 11-year-olds in language, cognitive, physical, motor, social and emotional areas. Also, influences on development are included.

**305. Research and Evaluation in Family and Child Studies. (3)**

This course focuses on critical roles research and evaluation play in informing professionals working with children and families in teaching and non-teaching contexts and cultivates an appreciation for research related to families and children.

**310. Friends and Intimate Relationships. (3)**



This course surveys the research concerning friends and intimate relationships. It also focuses on the dynamic characteristics of friendship and other intimate relationships.

**311. Family, Language, and Culture. (3)**

This advanced course prepares prospective teachers for working effectively as partners with linguistically and culturally diverse family and community members to facilitate the development and learning of children birth through age 8, including children with special needs.

**312. Parent-Child Interactions. (3)**

This course covers dynamic interactions of parents and children throughout the life cycle in diverse family configurations.

**313. Family Theories. (3)**

This course focuses on family theories, conceptual frameworks and research relevant to current family lifestyles including single parents, remarried, same sex, and cohabitants. Prerequisite: 213

**315. Adolescent Development in the Family. (3)**

This course focuses on developmental interaction and communication patterns of adolescents within a family setting.

**316. Early Childhood Curriculum & Pedagogy (3)**

Course focuses on developmentally appropriate practices and contents, learning environments, and curriculum implementation for children in PreK to Grade 3. Emphasizes integration of content areas, including reading/writing, math, science, social studies, & technology.

Restriction: Admitted to program, junior standing

**321. Young Children with Diverse Abilities. (3)**

This advanced course builds upon student understanding of the connections among learning, teaching, and assessment and strategies for evaluating programs. It provides a specific focus on educational policies, programs, practices, and services appropriate for infants, toddlers, preschoolers, and early primary children who exhibit delays and disabilities. Prerequisite FCS 220

**341. Ecological Aspects of Housing. (3)**

This course addresses characteristics and variations in housing structures and the impact of housing on family functioning.

**343. Family Management Theories. (3)**

This course focuses on the comparison of current theories of family management.

**344. Consumer Decisions. (3)**

This course discusses role of the family member as a consumer and exploration of the

resources available for purchase decisions.

**391/591. Problems. (1-6 to a maximum of 6)** [1-3 to a maximum of 3]

Restriction: Permission of instructor.

**395. Field Experience. (1-6 to a maximum of 6; student should enroll for 3 credits)**

This course combines 120 hours of practical experience in agency or institutional setting with class seminar. Students apply and integrate knowledge and skills for working with or on behalf of individuals and/or families.

Restriction: permission of instructor.

**401. Research in Child Growth, Development, and Learning. (3)**

This advanced course in child growth, development, and learning builds upon the foundational material covered in the basic course in child growth, development, and learning. An integration of major theories of child development is provided.

**402. Teaching & Learning Reading and Writing. (3)**

This advanced course prepares early childhood professionals to teach reading and writing in K-3 classrooms. This course covers a broad spectrum of topics relevant to the teaching of reading.

Restriction: Admitted to program, junior standing

**403. Growth and Development of the Preschool Child. (3)**

This course discusses developmental principles and recent research on language, cognitive, physical-motor and social-emotional development of the preschool child.

Co-requisite: 407L.

**405. Advanced Caregiving for Infants and Toddlers. (3)**

This advanced course prepares early childhood professionals to teach reading and writing in K-3 classrooms. This course covers a broad spectrum of topics relevant to the teaching of reading.

Restriction: Admitted to program, junior standing

**406. Teaching and Learning Math and Science. (4)**

The focus of this advanced curriculum course is on the standards, principles, and practices in teaching mathematics and science to young children in preschool through GRADE 3. An emphasis is placed on developing a content-rich integrated math and science curriculum that focuses on children's development and interests, includes appropriate content, processes, environment, and materials.

Restriction: Admitted to program, junior standing

**407L. Preschool Child Laboratory. (1)**

Laboratory experience in child care center; must be taken concurrently with 403. Field

activity includes participation or observation/ participation. Hours arranged.  
Pre- or co-requisite: 403.

**408. Teaching and Learning Social Studies, Fine Arts and Movement. (3)**

The course focuses on the aims, scope, and integration of methods of teaching social studies, the fine arts, and movement across the curriculum. This course emphasizes an integrated approach to teaching the “what and why” of social studies; assessing student learning; planning units, lessons, and activities; developing effective instructional strategies.

Restriction: Admitted to program, junior standing

**411. Marriage and Family Life Education. (3)**

This course is designed to discuss philosophies and processes of family life education (FLE) programs.

**412. Fathering. (3)**

This course examines fathers’ role in child development across cultural groups. Conceptualization of fathering and the relationship between cultural beliefs and fathering behaviors are explored.

**416. Adult Development in the Family. (3)**

This course examines the biological, psychological and sociocultural aspects of adult development and aging and their dynamic interactions within the context of diverse family structures and lifestyles. Implications for prevention and intervention strategies are discussed.

**417L. Teaching and Learning Practicum. (2)**

The is a co-requisite course with FCS 402, FCS 406, and FCS 408. The field based component of this set of courses will provide experiences that address curriculum content and practice teaching that is relevant for children PRE-K-GRADE 3

Restriction: Admitted to program, junior standing

**440. Student Teaching Seminar. (3)**

Weekly seminar where students engage in critical reflection and discussion of their own practice, make connections between theory and practice. Students focus on developing competencies, self-assessments, and develop a professional portfolio.

Co-requisite: ECME 440L

Restriction: Admitted to program, Senior standing

**440L. Student Teaching Lab. (9)**

Student teaching experience in early childhood including placement and assigned tasks in an early childhood classroom with a mentor teacher. Co-requisite weekly seminar for review and reflection of teaching practices.

Co-requisite: ECME 440

Restriction: Admitted to program, Senior standing

**443. Application of Family Management Theories. (3)**

Discussion of working with family members to identify and help meet family demands with an emphasis on family resource use. The course requirement includes 40 hours in a field setting. Prerequisite: 343.

**481. Public Policy & Advocacy in Family & Child Studies. (3)**

Synthesis of issues in Family Studies with emphasis on the formulation and impact of public policies.

Restriction: Junior standing.

**484. The Sociocultural Context of Families. (3)**

The course focuses on how cultural values and belief structures, immigration and adjustment experiences, and other socioeconomic conditions shape the current family compositions and functioning patterns of ethnic minority families in the U. S.

Restriction: Junior standing.

**493/593. Topics. (1-3, no limits)**

Restriction: permission of instructor

**497. Reading and Research in Honors I. (2)**

Advanced studies and research under the supervision of a faculty mentor.

Restriction: permission of instructor.

**498. Reading and Research in Honors II. (2)**

Advanced studies and research under the supervision of a faculty mentor.

Prerequisite: 497. Restriction: permission of instructor.

**499. Honors Thesis. (2)**

Prerequisite: 498. Restriction: permission of instructor.

**Revision of the Family Studies (FS) and the Early Childhood and Multicultural  
Education (ECME) Programs**

**&**

**Proposed Family & Child Studies (FCS) Program**

**Merger & Changes in the Undergraduate FS and ECME,**

**Department of Individual, Family & Community Education  
College of Education  
University of New Mexico**

**Summary of the Revision and Merger**

| <b>Existing Programs</b>                                     | <b>Proposed (Effective Fall 2016)</b>                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>B. S. in FS<br/>(128 credits)</b>                         | <b>Revise to B. S. in FCS with 3 concentrations:</b> <ul style="list-style-type: none"><li>- Human Development and Family Relations (120 credits)</li><li>- Early Childhood Education &amp; Development (120 credits)</li><li>- Early Childhood Multicultural Education Licensure, Pre-K to Grade 3 (121 credits)</li></ul> |
| <b>B. S. in Human Development and Family Relation (HDFR)</b> | <b>Delete</b>                                                                                                                                                                                                                                                                                                               |
| <b>B. S. in ECME</b>                                         | <b>Delete</b>                                                                                                                                                                                                                                                                                                               |
| <b>B. A. in FS (A&amp;S students)</b>                        | <b>B. A. in FCS (A&amp;S students)</b>                                                                                                                                                                                                                                                                                      |
| <b>Minor in FS (21 credits)</b>                              | <b>Revise to minor in FCS (18 credits)</b>                                                                                                                                                                                                                                                                                  |
| <b>Minor in HDFR</b>                                         | <b>Delete</b>                                                                                                                                                                                                                                                                                                               |

## **Vision of the Family & Child Studies Program**

*Enhancing the lives of children and families through inter-related theory, research, and practice that address the diverse and complex nature of their futures.*

## **Mission of the Family & Child Studies Program**

*Our mission is to foster an interdisciplinary scholarly environment that enables early childhood professionals, family service providers, and researchers in the field of family and child study to*

- *cultivate and disseminate systematic information and grounded knowledge about the diverse nature of families in contemporary societies*
- *understand and critically respond to the dynamic complexities of human development across the lifespan*
- *foster leadership in addressing the multiple facets of early childhood development*

## **Introduction**

The Family & Child Studies Program (FCS) is targeted to begin Fall 2016 as the culmination of an intensive, 4-year review and revision of two existing programs in the Department of Individual, Family and Community Education (IFCE). These programs are:

Family Studies (FS); and

Early Childhood Multicultural Education (ECME)

The establishment of the FCS Program will also involve eliminating another degree program (Human Development and Family Relations – HDFR) that currently exists under the FS Program.

Family Studies currently offers Bachelor's, Master's and Doctoral degrees, and both the HDFR and ECME Programs offer the Bachelor of Science degree. The reimagination and consolidation of these degree programs are the basis for the comprehensive revision of the degree requirements for the proposed FCS degree offerings. More generally, the proposed FCS program is grounded in a firm commitment to (a) emphasize research productivity on the part of its faculty and both undergraduate and graduate students, (b) strengthen its academic offerings at all degree levels, and (c) provide excellent mentoring of its graduate and doctoral students aimed at developing leaders and quality researchers in the field.

As noted above, the proposed FCS program is the outcome of a comprehensive review of the Family Studies, Human Development and Family Relations, and Early Childhood Multicultural Education programs at the Bachelor level, and the Family Studies program at the Master and Doctoral levels. The proposed changes are therefore not aimed at creating any new degree programs but, rather, revisions of the existing Bachelor of Science, Bachelor of Arts, Master of Arts and Doctor of Philosophy degrees in Family Studies. In line with the proposed merger, a Form C will be submitted to delete both the ECME and HDFR Bachelor of Science degrees. The revision of the FS – B.S. degree to the FCS – B.S. degree will result in three concentrations as follows:

- a) Human Development and Family Relations (HDFR – 120 credits)
- b) Early Childhood Education and Development (ECED – 120 credits)
- c) Early Childhood Multicultural Education Licensure (ECMEL – 121 credits), Pre-K to Grade 3

The changes will result in a revised subject code (FCS) for all courses offered in the merged program and the FS and ECME subject code will expire for courses offered on main campus.

### **Reasons for Request**

FS and ECME faculty have shared academic interests that focus on families, children, and communities. The complementarity of such interests and expertise will be significantly enhanced by the proposed merger. In addition, the merger will help us pool resources to effectively address both faculty and student involvement in academic processes and products. We envision that such a consolidation will improve the quality of our teaching, research, advisement, and other professional contributions and services. As a key corollary, students will be a part of a vibrant, innovative program and will experience a well-supported academic and learning environment.

As already indicated, the Form C to revise the existing Family Studies Bachelor of Science degree is part of a deliberative process to merge two existing programs, Early Childhood Multicultural Education and Family Studies, in the Department of Individual, Family, and Community Education in the College of Education. As part of this process, the existing ECME Bachelor of Science degree and the existing HDFR Bachelor of Science degrees will be deleted. Minors in the Family Studies and Human Development and Family Relations will also be deleted, resulting in a revised minor in Family and Child Studies (FCS). The current Form C will include three concentrations (Human Development and Family Relations – HDFR, Early Childhood Education and Development – ECED, and Early Childhood Multicultural Education Licensure - ECMEL, Pre-K to Grade 3) that effectively revise and more efficiently organize existing programs of study in three separate Bachelor degree pathways (ECME, FS, & HDFR). It may be important to note that if all gets approved, the University of New Mexico will offer a state of the art, high-quality, and rigorous undergraduate degree program for individuals seeking license for Pre-K to Grade 3 that includes deep knowledge in early childhood education, child development, and family well-being.

## **Justification of the Merged FCS Program**

The Early Childhood Multicultural Education Program and the Family Studies Program faculty believe that the proposed merger is an appropriate evolution of programs that have been closely linked since the creation of the ECME program at UNM following the adoption of the Birth to Grade Three Teaching License by the then New Mexico State Board of Education in 1993. Three UNM faculty members from Family Studies were part of the original group that developed the licensure competencies and developed the proposal for the new ECME degree program at UNM. That program began admitting students in 1996. From 1996 to 1999 Family Studies faculty taught courses in ECME; since 1999, at least three Family Studies courses have been taught each academic year by ECME faculty. And in the past three years, ECME faculty members have taught at least five Family Studies courses each academic year.

The original plan for ECME included five-tenure/tenure track faculty. However, this plan was never realized. From 1998 to 2000 the ECME program had 4.5-tenure/tenure track faculty. From 2000 to 2007 the ECME program operated with only 2.5 faculty. Similarly, the Family Studies program experienced significant attrition of its faculty from 1998 to 2015, decreasing from nine tenure/tenure track faculty members to only two. Given this history, a primary reason for the merger proposal is the need to create a future-oriented program with a critical mass of faculty able to sustain both quality and expansion to meet the needs of its students and to contribute meaningfully to the field of Family & Child Studies. Especially in light of the economic challenges affecting higher education, it seems clear that two programs in the College of Education, functioning separately and with only five full-time tenure-track faculty total (two FS and three ECME), would not be able to sustain quality and growth. In addition, the colleagues in Family Studies and ECME see such a merger as exactly the type of redesign and interdisciplinary initiative that the university is encouraging to respond effectively to the need for excellence in programs and creativity that reflects trends in a range of fields. More specifically, the faculty colleagues have agreed that merging the two programs would enable them to address more effectively the critical need for preparing professionals for positions of leadership in New Mexico in the context of programs and services for young children, their families, and the wider community.

Several important reasons factored into the re-design of our proposed bachelor of science degree program that includes a new early childhood teacher preparation pathway leading to state license.

First, July 2014 witnessed the state's adoption of two new early childhood licenses that replaced the original Birth to Grade 3 License. The "Birth to Pre K" and "Pre K to Grade Three" licenses. The state adopted a "non-licensure" Birth to PreK option for early childhood professionals who require a degree in early childhood but not a state license (e. g., Head Start personnel).



Second, the Early Childhood Teacher Preparation pathway in New Mexico includes a complete Associate of Arts degree program requiring 35 general education credits and 29 professional courses that are offered at almost every community college and branch campus in New Mexico. Unlike other teacher educator programs in New Mexico, Early Childhood Educator programs are under a statewide full articulation agreement that requires UNM to accept 11 of the 20 required professional courses for licensure taken at any of the other colleges in New Mexico.

Third, since 2002, the state has adopted a “universal curriculum” in early childhood which mandates that all courses for Associate and Bachelor level degrees have identical course titles, course descriptions, and course competencies, a comprehensive review of all Associate degree programs in the state revealed a wide range of quality in Associate of Arts Early Childhood programs across our state.

Fourth, we are concerned that our ability to be accountable for the quality of our program and the competency level of our graduates would be compromised by the fact that students could transfer in 86 of the 135 credits required courses from other institutions under state articulation and our own university rules.

Fifth, our governor signed into law Senate Bill 329 in April of this year. This act amends the school personnel act by reducing the general education requirements for teachers in New Mexico. In response to SB 329, our college established a Curriculum Consensus Committee to approve modifications to existing teacher preparation degree programs and to enhance our teacher preparation programs with additional course work aimed at cultural responsiveness, classroom assessment, bilingual education, and special education.

Sixth, in 2014 the provost’s office encouraged undergraduate degree programs to develop 120 credit degree plans in order to align with national trends that also would address the increasing cost of higher education, and graduation rates.

To these ends, the FCS program is proposing three concentrations that address these six issues. The revised Bachelor of Science degree will offer two 120-credit concentrations and one 121-credit concentration that leads to PreK to Grade 3 New Mexico teaching license. Taken together, HDFS, ECED, and ECDEL Pre-K to Grade 3 concentrations will afford students with opportunities to develop deep understandings of children’s growth, development and learning, family health and well-being as well as acquiring deep knowledge of the important ways in which family relationships, socialization, and community engagement factor into children’s readiness for succeeding in school.

The proposed revision will offer a high-quality, state of the art program that responds to the Provost Office’s of increasing graduation and reducing total number of credits in undergraduate programs offered at UNM. In the revised FCS program, the total number of credits required in two non-license concentrations of the bachelor level degree program will be 120 credits (i. e., a reduction from 135 to 120 credits) and the Pre-K to Grade 3 license pathway will be 121 credits. In addition, the proposed revision modifies and updates existing courses from both

Family Studies and ECME and also includes new courses from within the College of Education in preparing teachers for the PreK to Grade 3 teaching license.

The FCS faculty strongly believe the re-designed early childhood teacher preparation concentration and the proposed non-licensure early childhood education and development concentration address shortcomings of the current undergraduate teacher preparation method in New Mexico that has heretofore focused primarily on transferability from community colleges and focus on state certification. The original Early Childhood licensure model in NM was designed prior to the adoption of the three-tier teacher licensing system in New Mexico, and the significant growth of diversity of early childhood positions in New Mexico that require higher education but not state certification. Our new design assures quality, cost efficiency, and comprehensiveness in early childhood teacher preparation, and in preparing professionals to work in a variety of positions that serve young children, families, and communities.

**Current user: cclark48 / Comments (8) / Form Transaction Log**  
**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C  
Form Number: C1702**

Fields marked with \* are required

Name of Initiator: Amanda Kay Wolfe Email: [akwolfe@unm.edu](mailto:akwolfe@unm.edu) Phone Number: 505 277-7044 Date: 10-13-2015Associated Forms exist?\*  Initiator's Title\* Associate Director: LAII General Administrat

Faculty Contact\* Matias Fontenla

Administrative Contact\* Amanda Wolfe

Department\* Latin American Studies

Admin Email\* [akwolfe@unm.edu](mailto:akwolfe@unm.edu)

Branch Main

Admin Phone\* 277-7044

Proposed effective term

Semester  Year **Course Information**Select Appropriate Program\* 

Name of New or Existing Program\* PhD Latin American Studies w/ MA En Route

Select Category \*  Degree TypeSelect Action **Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[MA PhD En Route.docx](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

See attached.

[LAS MA En Route Reason.docx](#)**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[LAS MA En Route Impact.docx](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[View Comments on this Form](#)  
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## Ph.D. in Latin American Studies

The Ph.D. in Latin American Studies is a small and highly selective program designed to prepare students for a limited number of targeted careers that are best advanced by an interdisciplinary doctorate. Such students include individuals who seek employment in areas where the ability to research and teach across disciplines would be an advantage, and where having skills in two disciplines, combined with Latin American area expertise, would be more useful than extensive training within one discipline.

### Degree Requirements

General University rules and regulations pertaining to graduate study at the University of New Mexico are detailed in the *The Graduate Program* section of this Catalog. The *Latin American Studies Handbook* is updated each year and provides more in-depth information to students in the LAS program. Students are responsible for knowing and abiding by the rules laid out in the *UNM Catalog* and the *Latin American Studies Handbook*.

The Ph.D. in Latin American Studies requires a minimum of 48 credit hours of graduate course work, plus an additional 18 dissertation credit hours, for a total of 66 credit hours.

Students choose 2 concentrations for a total of 42 credit hours, plus 6 credit hours of elective courses. The concentrations include Anthropology, Art History, Brazilian Literature, Built Environment (School of Architecture and Planning), Communication, Economics, Geography and Environmental Studies, History, International Management (Anderson School of Management), Political Science, Public Health (School of Medicine), Sociology, Spanish-American Literature, and Spanish Linguistics. Students can choose 21 credit hours in each concentration, so that both concentrations have equal weight, or 15-27 credit hours in each, with a primary and secondary concentration.

Of the 48 total credit hours required for the Ph.D., a minimum of 24 credit hours must be taken after admission to the doctoral program. The Associate Director for Academic Programs must approve any course work taken at the master's level and applied towards the Ph.D.

Competence is required in one Latin American language by the time of degree completion. Competence in more than one Latin American language may be critical in certain areas of study. As such, some concentrations may require competence in a second language. For details, see the *Latin American Studies Handbook*. Competence is considered to be successful completion of advanced-level course work, or passing a language proficiency examination. Students who have completed an undergraduate or graduate degree in Latin America or Iberia satisfy the language requirements.

A Committee on Studies (COS) must be formed at least one semester before the student plans to take comprehensive examinations. The COS is composed of at least two members from each concentration. The student creates a reading list in consultation with all members of his or her COS, and the committee approves the list the semester prior to the scheduled exam. The comprehensive examinations are coordinated and administered by the Latin American Studies program in conjunction with the student's COS. Upon successful completion of the comprehensive examinations, an M.A. in Latin American Studies is conferred and students are advanced to candidacy within the doctoral program.

### Reason for Request

The proposed MA en route to PhD acknowledges the time and effort students have committed to their graduate studies. To earn the PhD in LAS, students must complete a total of 48 credit hours (exclusive of dissertation hours), 24 of which must be completed after formal admission to the doctoral program. The MA en route to PhD option allows students to commence with their doctoral studies, complete the majority of the 48 required hours, sit for their comprehensive examinations, and receive their MA at the same time they are advanced to candidacy for the PhD.

This is a successful model embraced by other departments on campus which aids in the recruitment of graduate students and supports the university's desire to increase the number of graduate degrees awarded. It's important to note that the integrity and intellectual rigor of the graduate program is in no way compromised. Students still complete the requisite graduate courses and must demonstrate scholarly capacity through the successful completion of comprehensive exams.

**Current user: cclark48 / Comments (9) / Form Transaction Log**  
**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C  
Form Number: C1703**

Fields marked with \* are required

Name of Initiator: Amanda Kay Wolfe Email: [akwolfe@unm.edu](mailto:akwolfe@unm.edu) Phone Number: 505 277-7044 Date: 10-13-2015Associated Forms exist?\*  Initiator's Title\* Associate Director: LAII General Administrat

Faculty Contact\* Matias Fontenla

Administrative Contact\* Amanda Wolfe

Department\* Latin American Studies

Admin Email\* [akwolfe@unm.edu](mailto:akwolfe@unm.edu)

Branch Main

Admin Phone\* 277-7044

Proposed effective term

Semester  Year **Course Information**Select Appropriate Program\* 

Name of New or Existing Program\* PhD Latin American Studies- Communication Concentration

Select Category\*  Degree TypeSelect Action **Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[Communication\\_Concentration\\_Requirements.1.docx](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

See attached.

[PHD\\_LAS\\_Communication\\_Reason.docx](#)**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[PhD\\_LAS\\_Communication\\_Impact.docx](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[View Comments on this Form](#)  
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## PhD LAS Communication Concentration

### Concentration Requirements

Students select two concentrations from the following:

Anthropology, Art History, Brazilian Literature and Culture, Built Environment, Economics, Geography and Environmental Studies, History, International Management, Political Science, Public Health, Sociology, Spanish-American Literature, Spanish Linguistics.

Select from the following list of courses for each concentration, in consultation with the Associate Director for Academic Programs and the COS. All courses must contain at least 40% Latin American content; exceptions may be approved by the Associate Director and COS.

#### **Anthropology**

ANTH 510, 511, 522, 524, 529, 532, 533, 537, 539, 546, 547, 561, 574, 579, 585.

#### **Art History**

ARTH 500, 511, 512, 529, 549, 550, 560, 580, 583, 585, 590, 593, 594.

#### **Brazilian Literature and Culture**

PORT \*461, 514, 515, 516, 517, 521, 557, 558, 570; SPAN 502.

#### **Built Environment**

ARCH 502, 503, 504, 505, 509, 515, 516, 517, 521, 523, 524, 534, 541, 542, 544, 551, 552, 563, 564, 581, 590, 591, 593, 661, 662, 691, 692, 693, 694, 695;

CRP 500, 503, 508, 510, 511, 513, 515, 516, 520, 521, 525, 527, 528, 530, 531, 532, 533, 535, 537, 543, 545, 551, 562, 563, 567, 569, 570, 572, 573, 574, 576, 577, 578, 580, 581, 582, 583, 584, 585, 587, 590, 591, 593, 691, 692, 693, 694, 695;

LA 501, 502, 503, 505, 508, 511, 512, 521, 531, 556, 558, 559, 560, 561, 563, 580, 581, 582, 586, 590, 591, 593, 691, 692, 693, 694, 695.

#### **Communication**

CJ 506, 517, 518, 519, 555, 566, 569, 604.

#### **Economics**

ECON \*410, \*421, \*423, \*424, \*427, \*429, \*442, \*445, \*466, \*478, 508, 509, 510, 520, 521, 522, 533, 534, 538, 540, 542, 543, 544, 545, 546, 560, 562, 564, 565, 581, 582, 583, 584, 585, 595.

#### **Geography and Environmental Studies**

GEOG \*445, \*481L, \*499, 501, 502, 514, 515, 516, 517, 525, 561, 562, 564, 567, 580L, 581L, 583L, 584L, 585L, 586L, 587L, 588L, 591.



**History**

HIST 518, 560, 570, 571, 573, 574, 576, 577, 629, 643, 644, 645, 648, 649, 650, 651, 652, 653, 656, 664, 665, 673, 685, 686, 687, 688, 689, 690, 692.

**International Management**

MGMT 511, 524, 574, 583, 594, 595, 596, 597.

**Political Science**

POLS 510, 511, 512, 520, 521, 525, 540, 541, 551, 552, 570, 580, 581, 582, 584, 585, 681.

**Public Health**

ANTH 620; CJ 553, 555; ECON 564; HIST 610; PH 502, 505, 508, 533, 554, 556, 565, 579, 583; SOC 540; SPAN \*\*439.

**Sociology**

SOC 506, 507, 509, 510, 514, 520, 528, 532, 584.

**Spanish American Literature**

SPAN \*438, 502, 504, 531, 536, 601, 631, 639.

**Spanish Linguistics**

SPAN 541, 545, 546, 547, 549.

**Relevant electives outside of the Department may be taken only if pre-approved by the departmental Graduate Committee.**

### Reason for Request

The proposed Communication concentration would promote education and research on communication in Latin America and the Caribbean. It would capitalize on the Department of Communication & Journalism's (C&J) strengths in intercultural communication and other international specializations, including border studies. The department's breadth of Latin Americanist, internationalist, and Southwest focused faculty, its success in recruiting international students, and its tradition of respected international scholarship make for strong synergies with Latin American Studies and bode well for the concentration. The proposed collaboration would also help support C&J's stated commitments to (1) provide students with the tools needed to succeed in a challenging global work environment; (2) value, embrace, and support diversity as an integral component of communication; and (3) use the Southwest and the international borderlands environment to focus the study of intercultural communication.

There is considerable student interest in having a concentration like Communication. Demand coupled with a plethora of existing courses and faculty in this area make this a reasonable and justifiable concentration to add to the Latin American Studies program.

### Impact and Workload Implications

The proposed changes would likely influence enrollments modestly in Communication courses. Experience with other disciplinary concentrations involving LAS suggests enrollment in the listed courses should exceed no more than 2 or 3 students. The Communication department does have sufficient capacity to support the shift in enrollments in specific courses associated with the proposed changes. Finally, no additional faculty or courses will be necessary.

The changes would not require any additional resources from the UNM Libraries or IT beyond those associated with slight increases in graduate enrollments in certain courses. No additional specialized collections of information resources would be required.

The Communication Concentration draws entirely on current faculty, currently-offered courses, and a strong library collection. No additional library, budgetary, or faculty resources are required. In addition, there is no additional impact on long-range planning. There are no additional proposed courses or requirements that would require resources.

## Re: LAS PhD Concentration in Communication + Form C!

PC

Patricia Covarrubias

Reply

To:

Matias Fontenla;

Cc:

Amanda Wolfe;

Fri 9/11/2015 9:18 AM

Hola Matias,

Thanks for your email and the updated materials, and for alerting me to the new student arriving in Spring 2016..

I'll set up a meeting with Martina to talk about the handbook and (re)set dates. We'd already determined a timeline; but, we'll revisit it.

If possible, I'd like to talk about the program of study that Martina and I developed, even though she presumably already shared it with you. If your schedule is too jammed, Matias, perhaps a face-to-face meeting with Amanda?

Thank you.

Patricia

Patricia O. Covarrubias Ph.D.  
PhD Program Director  
Associate Professor  
The University of New Mexico  
Communication and Journalism  
MSC 032240; 1 University of [New Mexico](#)  
[Albuquerque, NM 87131](#)  
Email: [pocb@unm.edu](mailto:pocb@unm.edu)  
Home Page: <http://www.unm.edu/~baillet/>

¡Sí se puede!  
"Never, never, never never give up!"

---

**From:** Matias Fontenla  
**Sent:** Friday, September 4, 2015 4:19 PM  
**To:** Patricia Covarrubias  
**Cc:** Amanda Wolfe  
**Subject:** LAS PhD Concentration in Communication + Form C!

Patricia,

Hope all is well with you!

Attached is our latest version of our LAS PhD handbook. I think you should have it both as Martina's advisor, and the Grad advisor of C&J.

We currently have Martina Nebbiai and Monserrat Fernandez as LAS PhD students that have chosen one of their 2 concentrations in Communication. In Spring 16 we should have Denisse Vasquez joining them.

Important parts start on page 13, which I summarize for you:

- Students need to form a Committee on Studies (COS) with 2 faculty in each of the 2 concentrations.
- Student presents the faculty in each concentration a reading list, that is agreed upon.
- Student takes written comp exams. Standard LAS procedure is for the student to have approx 48 hrs to complete (usually Friday @ 5pm to Monday at 8am).
- After passing the exams in both concentrations, student forms a dissertation committee (minimum 2 faculty from main concentration, and minimum 1 faculty from second concentration. Student advances to candidacy.
- On page 36 is the Communication concentration guidelines.

Also, we just realized that our Form C application for Communication got lost somewhere, so we need to fill out a Form C and submit it (it is basically sending page 36 to the faculty senate, + a brief description to our LAS PhD). We will do it, but I am giving you heads up, since it may be you or your chair that need to OK it!

Thanks!!!!

Matías

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**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1704

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Name of Initiator: Amanda Kay Wolfe Email: [akwolfe@unm.edu](mailto:akwolfe@unm.edu) Phone Number: 505 277-7044 Date: 10-13-2015Associated Forms exist?\*  Initiator's Title\* Associate Director: LAII General Administrat

Faculty Contact\* Matias Fontenla

Administrative Contact\* Amanda Wolfe

Department\* Latin American Studies

Admin Email\* [akwolfe@unm.edu](mailto:akwolfe@unm.edu)

Branch Main

Admin Phone\* 277-7044

Proposed effective term

Semester  Year **Course Information**Select Appropriate Program\* 

Name of New or Existing Program\* MA Latin American Studies

Select Category \*  Degree TypeSelect Action **Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[MALAS Exit Requirements.docx](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

See attached.

[LAS MA Exit Requirements Reason.docx](#)**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[LAS MA Exite Requirements Impact.docx](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[View Comments on this Form](#)  
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## Degree Requirements

**Plan I** (thesis option): 36 credit hours. Students must take LTAM 510 Pro-Seminar in Latin American Studies, and select two areas of concentration within the degree program. Students have the option of completing 9 credit hours in one concentration and 15 credit hours in the other concentration or completing 12 credit hours in each concentration. The remaining 9 credit hours are divided between 3 credit hours of program electives and 6 credit hours of thesis credits.

Students under the Plan I option must complete a minimum of 12 credit hours in graduate seminars numbered 500 or above (excluding 551 or 552 Problems courses) and 6 credit hours of thesis numbered 599. Students should consult with the Associate Director to determine which courses are considered seminars. Students are required to present an oral defense of the thesis, which integrates the two concentrations, before a thesis committee composed of at least two faculty members in one concentration and one faculty member from the second concentration. ~~Students also are required to sit for the comprehensive examination in the second concentration, administered by three faculty members from that concentration.~~

**Plan II** (non-thesis option): 36 credit hours. Students must take LTAM 510 Pro-Seminar in Latin American Studies, and select two areas of concentration within the degree program. Students have the option of completing 9 credit hours in one concentration and 15 credit hours in the other concentration or completing 12 credit hours in each concentration. The remaining 12 credit hours are comprised of electives. In lieu of the thesis, Sstudents complete one exit option for each concentration. Students can choose the same option for each concentration or choose a combination of options from the following: complete a professional paper deemed worthy of publication by a Committee on Studies composed of two faculty members from the concentration; complete a written comprehensive examination administered by a Committee on Studies composed of two faculty members from the concentration. ~~are required to sit for the comprehensive examinations in both concentrations. The examinations are administered by a Committee on Studies composed of two faculty members from each concentration.~~

Under the Plan II option, students must complete a minimum of 12 credits in graduate seminars numbered 500 or above (excluding 551 or 552 Problems courses). Students should consult with the Associate Director to determine which courses are considered seminars.

### Reason for Request

The proposed changes to the exit requirements for the MA in LAS are threefold:

- 1) Students will benefit much more from producing scholarly work that is worthy of review by refereed journals. While the thesis allows students to pursue an in-depth research topic, it is too lengthy for publication in a journal but too brief for manuscript consideration. As a result, the work is viewed by a smaller audience and doesn't adequately prepare those students who plan to pursue a PhD for the challenges of producing journal articles.
- 2) Years of experience have demonstrated that the majority of students who pursue the thesis take much longer to complete their degree. A few very bright, self-motivated, structured students are able to complete their course work and defend their thesis within the expected two years but most get lost in the process and languish for three, four, even five years. This creates an additional burden on faculty who are supervising students who must spend additional time nudging and shepherding such students. Faculty have expressed a desire to work with students to produce publishable papers which stand a much greater chance to be read by a larger population. Students and faculty can also benefit by submitting co-authored works to refereed journals.
- 3) For students who don't plan to pursue a doctoral degree, the MA comprehensive exam provides an option to demonstrate their mastery of knowledge without imposing the time required to produce publishable quality work expected by the academy. The exams, however, still maintain the necessary rigor to assess a student's performance in a graduate program.



### Impact and Workload Implications

The proposed changes will not adversely impact workload. Faculty must dedicate significant time to mentor and serve on graduate committees regardless of the exit option chosen by students. However, if more students choose to pursue a professional paper in lieu of the thesis, faculty time might be invested more wisely with better results.

The revised exit option will not require any additional resources from the UNM Libraries or IT.

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**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1706

Fields marked with \* are required

**Name of Initiator:** David Atencio **Email:** [atencio1@unm.edu](mailto:atencio1@unm.edu) **Phone Number:** 505 277-3757 **Date:** 10-15-2015  
**Associated Forms exist?\*** Yes **Initiator's Title\*** Associate Professor: Individual Family Comm Educ I  
**Faculty Contact\*** David Atencio **Administrative Contact\*** Cynthia Salas  
**Department\*** Individual, family, and community education **Admin Email\*** [casalas@unm.edu](mailto:casalas@unm.edu)  
**Branch** Main **Admin Phone\*** 277-4318

**Proposed effective term**Semester **Fall** Year **2016****Course Information**

**Select Appropriate Program\*** Undergraduate Degree Program **Name of New or Existing Program\*** BS Early Childhood Multicultural Education  
**Select Category \*** Degree **Degree Type** BS  
**Select Action** Deletion

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***  
See current catalog for format within the respective college (upload a doc/pdf file)

☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.

**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

Degree program prepared individuals to receive the Birth to Third Grade teaching license. License no longer exists. New PreK to Grade 3 teaching license was enacted in 2014. Proposed concentration in Early Childhood Multicultural Education PreK to Grade 3 Licensure for the revised Bachelor of Science degree in Family and Child Studies will now prepare students to become licensed to teach early childhood in New Mexico.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)

[ECME BS Deletion Statement .docx](#)

☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.

**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)

**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)

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## *Department of Individual, Family & Community Education*

*Deletion of the Bachelor of Science in Early Childhood Multicultural Education (BS ECME)*

*Please see Executive Summary for the proposed revision of the Bachelor of Science in Family Studies for the detailed budget implication, two year schedule of classes, and faculty work load implications as they relate to the deletion of the ECME Bachelor of Science degree.*

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## Curriculum Workflow



[Link to Curricula Forms Process Manual](#)

### DEGREE/PROGRAM CHANGE FORM C Form Number: C1708



Fields marked with \* are required

**Name of Initiator:** David Atencio **Email:** [atencio1@unm.edu](mailto:atencio1@unm.edu) **Phone Number:** 505 277-3757 **Date:** 10-15-2015  
**Associated Forms exist?\*** Yes **Initiator's Title\*** Associate Professor: Individual Family Comm Educ I  
**Faculty Contact\*** David Atencio **Administrative Contact\*** Cynthia Salas  
**Department\*** Individual, family, and community education **Admin Email\*** [casalas@unm.edu](mailto:casalas@unm.edu)  
**Branch** Main **Admin Phone\*** 277-4318

**Proposed effective term**

Semester **Fall** Year **2016**

### Course Information

**Select Appropriate Program\*** Undergraduate Degree Program **Name of New or Existing Program\*** BS Family and Child Studies - Early Childhood Multicultural Ed Licensure Pre-K to Grade 3 Concent  
**Select Category \*** Concentration Degree Type BS  
 Select Action **New**

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***  
 See current catalog for format within the respective college (upload a doc/pdf file)

[ECMEL Concentration, FCS BS Requirements.docx](#)  
[4 Year Degree Plan FCS-BS ECMEL Concentration.docx](#)

☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.

**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

Proposed concentration meets requirements for students pursuing the new PreK to Grade 3 teaching license in New Mexico. The proposed concentration replaces the old BS in ECME that no longer meets the requirements of the new teaching license and also reduces the degree requirements from 132 to 121 credits. The proposed concentration also addresses the reduction of general education courses for all teachers in New Mexico enacted by Senate Bill 239 effective 2016. This proposed concentration of the proposed Bachelor of Science degree in Family and Child Studies also incorporates the changes that were developed by the College of Education's Curriculum Consensus Committee that enhance the course work for all teachers being prepared in the college in terms of improving responsiveness to cultural and linguistic diversity, the needs of children with diverse abilities, and improving competencies in relation to classroom assessment.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)

[ECMEL Concentration Statement Form C.docx](#)

☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.

**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)

**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)

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Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001

## 2016-17 Degree Plan

### Family and Child Studies, BS (Early Childhood Multicultural Education PreK-Grade 3 Licensure Concentration)

College of Education: Department of Individual, Family, and Community Education (4 Year Plan)

(All required general education courses must conform to UNM core curriculum)

| Term 1                                                                                                                      | Hours Towards Degree: 14 | Hours | Minimum Grade | Notes |
|-----------------------------------------------------------------------------------------------------------------------------|--------------------------|-------|---------------|-------|
| ENGL 110: Accelerated Composition or ENGL 111: Composition I and ENGL 112: Composition II or ENGL 113: Enhanced Composition |                          | 3     | C             |       |
| LLSS 175: Foundations of American Indian Education                                                                          |                          | 3     | C             |       |
| HIST 101: Western Civilization to 1648 or HIST 102: Western Civilization Post 1648                                          |                          | 3     | C             |       |
| FCS101: Child Growth Development and Learning                                                                               |                          | 3     | C             |       |
| FCS 103: Health Safety and Nutrition                                                                                        |                          | 2     | C             |       |
| Social and Behavioral Science                                                                                               |                          | 3     | C             |       |
| Term Hours:                                                                                                                 |                          | 17    |               |       |
| Term 2                                                                                                                      | Hours Towards Degree: 32 | Hours | Minimum Grade | Notes |
| ENGL 120: Composition III                                                                                                   |                          | 3     | C             |       |
| ARTE 214: At in the Elementary and Special Education Classroom                                                              |                          | 3     | C             |       |
| HIST 161: History of the United States to 1877 or HIST 162: History of the United States Since 1877                         |                          | 3     | C             |       |
| FCS 111: Family and Community Collaboration I                                                                               |                          | 3     | C             |       |
| FCS115: Guiding Young Children                                                                                              |                          | 3     | C             |       |
| Term Hours:                                                                                                                 |                          | 15    |               |       |
| Term 3                                                                                                                      | Hours Towards Degree: 50 | Hours | Minimum Grade | Notes |
| NTSC261L or NTSC 262L or NTSC 263L                                                                                          |                          | 4     | C             |       |
| HIST260: History of New Mexico                                                                                              |                          | 3     | C             |       |
| ENGL 219: Technical and Professional Writing or Engl 220: Expository Writing or C & J 130: Public Speaking                  |                          | 3     | C             |       |
| FCS 117: Curriculum Development Through Play                                                                                |                          | 3     | C             |       |
| FCS 117L: Curriculum Development Through Play Practicum                                                                     |                          | 2     | C             |       |
| FCS220: Assessment of Children and Evaluation of Programs                                                                   |                          | 3     | C             |       |
| Term Hours:                                                                                                                 |                          | 18    |               |       |
| Term 4                                                                                                                      | Hours Towards Degree: 65 | Hours | Minimum Grade | Notes |
| NTSC 226L or NTSC262L or NTSC 263L Environmental Science                                                                    |                          | 4     | C             |       |
| FCS 105: Introduction to Family and Child Studies                                                                           |                          | 3     | C             |       |
| FCS 217: Curriculum and Implementation Age 3 to Grade 3                                                                     |                          | 3     | C             |       |
| FCS 217L: Curriculum and Implementation Age 3 to Grade 3 Practicum                                                          |                          | 2     | C             |       |
| FCS202: Introduction to Language, Literacy & Reading                                                                        |                          | 3     | C             |       |
| Term Hours:                                                                                                                 |                          | 15    |               |       |
| Term 5                                                                                                                      | Hours Towards Degree: 82 | Hours | Minimum Grade | Notes |
| LLSS 453: Theoretical and Cultural Foundations of Bilingualism                                                              |                          | 3     | C             |       |
| EDPY 472: Classroom Assessment                                                                                              |                          | 3     | C             |       |
| FCS 401: Research in Child Growth, Development and Learning                                                                 |                          | 3     | B             |       |
| FCS 311: Family Language and Culture                                                                                        |                          | 3     | B             |       |
| Foreign Language                                                                                                            |                          | 3     | C             |       |
| FCS 230: Professionalism                                                                                                    |                          | 2     | C             |       |
| Term Hours:                                                                                                                 |                          | 17    |               |       |

| Term 6 | Hours Towards Degree: 97                                            | Hours | Minimum Grade | Notes |
|--------|---------------------------------------------------------------------|-------|---------------|-------|
|        | FCS 408: Teaching & Learning Social Studies, Fine Arts & Movement   | 3     | B             |       |
|        | FCS 402: Teaching & Learning Reading and Writing                    | 3     | B             |       |
|        | FCS 321: Young Children with Diversabilities                        | 3     | B             |       |
|        | Social and Behavioral Science                                       | 3     | C             |       |
|        | MATH 215: Mathematics for Elementary and Middle School Teachers III | 3     | C             |       |
|        | Term Hours:                                                         | 15    |               |       |
| Term 7 | Hours Towards Degree: 109                                           | Hours | Minimum Grade | Notes |
|        | Stat 145: Introduction to Statistics                                | 3     | C             |       |
|        | Social and Behavioral Science                                       | 3     | C             |       |
|        | FCS 406: Teaching & Learning Math and Science                       | 4     | B             |       |
|        | FCS 417L: Teaching & Learning Practicum                             | 2     | B             |       |
|        | Term Hours:                                                         | 12    |               |       |
| Term 8 | Hours Towards Degree: 121                                           | Hours | Minimum Grade |       |
|        | FCS 440L: Student Teaching                                          | 9     | B             |       |
|        | FCS 440: Student Teaching Seminar                                   | 3     | B             |       |
|        | Term Hours:                                                         | 12    |               |       |
|        |                                                                     |       |               | Notes |
|        |                                                                     |       |               |       |

Crucial course: **1** (A crucial course is a predictor for success in obtaining this degree. It should be taken in the term indicated in order to ensure timely progress to graduation.)

## *Department of Individual, Family & Community Education*

*Bachelor of Science in Family and Child Studies ( Revision of the Bachelor of Science in Family Studies)*

*Concentration: Early Childhood Multicultural Education PreK to Grade 3 Licensure (121 Credit Hours)*

*Justification of the proposed concentration, impact of long range planning, faculty work load, and budget analysis:*

*The proposed concentration is part of the revision of the Bachelor of Science degree in Family Studies. It is a 121 degree program that meets the licensure requirements for the Prek to Grade 3 teaching license offered by the New Mexico Public Education Department. This is a new teaching license enacted in 2014. Up to now, UNM has only offered a bachelor degree in early education that led to the Birth to Grade Three teaching license which is no longer available in the state of New Mexico. This proposed concentration also addresses Senate Bill 239, which enacted a reduction in general education requirements for all teachers in New Mexico. This act becomes effective in 2016. In addition this new concentration also is part of the comprehensive revision of all teacher preparation programs in the College of Education in order to better prepare its graduates in the areas of cultural and linguistic diversity, assessment, and for working with children with diverse abilities.*

*Please see Executive Summary for the proposed revision of the Bachelor of Science in Family Studies for the detailed budget implication, two-year schedule of classes, and faculty work load implications.*

Current user: cclark48 / **Comments (8)** / Form Transaction Log

## Curriculum Workflow



[Link to Curricula Forms Process Manual](#)

### DEGREE/PROGRAM CHANGE FORM C Form Number: C1709



Fields marked with \* are required

**Name of Initiator:** David Atencio **Email:** [atencio1@unm.edu](mailto:atencio1@unm.edu) **Phone Number:** 505 277-3757 **Date:** 10-15-2015  
**Associated Forms exist?\*** Yes **Initiator's Title\*** Associate Professor: Individual Family Comm Educ I  
**Faculty Contact\*** David Atencio **Administrative Contact\*** Cynthia Salas  
**Department\*** Individual, family, and community education **Admin Email\*** [casalas@unm.edu](mailto:casalas@unm.edu)  
**Branch** Main **Admin Phone\*** 277-4318

**Proposed effective term**

Semester **Fall** Year **2016**

### Course Information

**Select Appropriate Program\*** Undergraduate Degree Program **Name of New or Existing Program\*** BS Family and Child Studies - Early Childhood Education & Development Concentration  
**Select Category \*** Concentration Degree Type BS  
**Select Action** New

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***  
 See current catalog for format within the respective college (upload a doc/pdf file)

[4 year Degree Plan FCS-BS ECED Concentration.docx](#)  
[Early Childhood Education & Development Concentration.docx](#)

☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.

**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

The proposed concentration in Early Childhood Education and Development [ECED] addresses a critical need in the state to prepare professionals to work in fields of early childhood education and development, family support, and early care (e.g., Head Start, home based care, home visiting, and child care) that now due to state and or federal guidelines require a bachelor level degree in early education and or early development BUT NOT state licensure. This proposed ECED concentration addresses the provost's request to reduce total credits for degrees to 120 credits. The proposed ECED concentration for the proposed bachelor of science degree in Family and Child Studies is part of the revision of the current Bachelor of Science degree in Family Studies.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)

[ECED Statement Form C.docx](#)

☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.

**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)

**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)

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## Family and Child Studies, BS (Early Childhood Education & Development Concentration)

(All required general education courses must conform to UNM core curriculum)

|                                                        |   |   |       |
|--------------------------------------------------------|---|---|-------|
| FCS 403: Growth and Development of the Preschool Child | 3 | C | Notes |
| FCS Upper Division Elective                            | 9 | C |       |
| Term Hours:                                            |   |   |       |
| 12                                                     |   |   |       |
|                                                        |   |   |       |
|                                                        |   |   |       |

| Term 7 | Hours Towards Degree: 108                                   | Hours | Minimum Grade | Notes |
|--------|-------------------------------------------------------------|-------|---------------|-------|
|        | FCS Upper Division Elective                                 | 6     | C             |       |
|        | FCS 484: The Sociocultural Context of Children &            | 3     | C             |       |
|        | Humanities                                                  | 3     | C             |       |
|        | Elective                                                    | 2     | C             |       |
|        | Term Hours:                                                 | 14    |               |       |
| Term 8 | Hours Towards Degree: 120                                   | Hours | Minimum Grade | Notes |
|        | FCS481: PublicPolicy and Advocacy in Family & Child Studies | 3     | c             |       |
|        | FCS Upper Division Elective                                 | 6     | c             |       |
|        | Social & Behavioral Sciences                                | 3     | C             |       |
|        | Term Hours:                                                 | 12    |               |       |
|        |                                                             |       |               |       |
|        |                                                             |       |               |       |
|        |                                                             |       |               |       |
|        |                                                             |       |               |       |
|        |                                                             |       |               |       |

Crucial course: ❶ (A crucial course is a predictor for success in obtaining this degree. It should be taken in the term indicated in order to ensure timely progress to graduation.)

Degree Plan Notes

- Keep in mind that minimum grades on road map are for individual coursework only. Students must maintain a minimum of a 2.75 cumulative grade point average for admission to the FCS Program and a minimum of a 2.0 cumulative grade point average for graduation from the College of Education. Mimumums listed for the individual courses do NOT meet the cumumulative minimum. For more information see the catalogue at [www.unm.edu](http://www.unm.edu)

|                                                   |
|---------------------------------------------------|
| BIOL 123 and BIOL 124L or BIOL 110 and BIOL 112Ls |
| BIOL 110: Biology Non-Majors                      |
| BIOL 112L: Biology Lab Non-Majors                 |
| BIOL 123: Bio for Health Related Sci              |
| BIOL 124L: Bio-Health Sci Lab                     |

**Curriculum for ECED Concentration (69 credits)****FCS Core (12 credits)**

|                                                                |   |
|----------------------------------------------------------------|---|
| FCS 105 Introduction to Family and Child Studies               | 3 |
| FCS 305 Research and Evaluation in Family and Child Studies    | 3 |
| FCS 481 Public Policy and Advocacy in Family and Child Studies | 3 |
| FCS 484 The Sociocultural Context of Children and Families     | 3 |

**ECED Concentration Core (lower division - 12 credits)**

|                                                                |   |
|----------------------------------------------------------------|---|
| FCS 101 Child Growth, Development and Learning                 | 3 |
| FCS 102 Carpe Noctem: Sleep, Health & the Family               | 3 |
| FCS 103 Health, Safety, & Nutrition                            | 2 |
| FCS 111 Family and Community Collaboration                     | 3 |
| FCS 115 Guiding Young Children                                 | 3 |
| FCS 117 Curriculum Development through Play                    | 3 |
| FCS 202 Introduction to Language, Literacy, & Reading          | 3 |
| FCS 203 Infant Growth and Development                          | 3 |
| FCS 213 Marriage and Family Relationships                      | 3 |
| FCS 217 Curriculum Development & Implementation Age 3 to Gr. 3 | 3 |
| FCS 220 Assessment of Children & Evaluation of Programs        | 3 |
| FCS 230 Professionalism                                        | 2 |

**ECED Concentration Core (upper division - 21 credits)**

|                                                            |   |
|------------------------------------------------------------|---|
| FCS 302 Emergent Literacy                                  | 3 |
| FCS 311 Family, Language and Culture                       | 3 |
| FCS 312 Parent-Child Interactions                          | 3 |
| FCS 316 Early Childhood Pedagogy & Curriculum              | 3 |
| FCS 401 Research in Child Growth, Development and Learning | 3 |
| FCS 403 Growth and Development of the Pre-School Child     | 3 |
| FCS 405 Advanced Caregiving for Infants and Toddlers       | 3 |

**FCS Electives (upper division - 24 credits)**

|                                                     |   |
|-----------------------------------------------------|---|
| FCS 304 Growth and Development in Middle Childhood  | 3 |
| FCS 310 Friends and Intimate Relationships          | 3 |
| FCS 313 Family Theories and Contemporary Lifestyles | 3 |
| FCS 315 Adolescent Development in the Family        | 3 |
| FCS 321 Young Children with Diverse Abilities       | 3 |
| FCS 341 Ecological Aspects of Housing               | 3 |
| FCS 343 Family Management Theories                  | 3 |
| FCS 344 Consumer Decisions                          | 3 |
| FCS 395 Field Experience                            | 3 |
| FCS 407L Pre-School Child Lab                       | 1 |
| FCS 411 Marriage and Family Life Education          | 3 |
| FCS 412 Fathering                                   | 3 |
| FCS 416 Adult Development in the Family             | 3 |
| FCS 443 Application of Family Management Theories   | 3 |

**General Education Requirements (40 credits)****AREA 1: Writing and Speaking – 9 credit hours**

ENGL 110 OR ENGL 111/112 OR 113 AND ENGL 120

Choose 1 additional course from the following: ENGL 219, ENGL 220, CJ 130, PHIL 156, UHON 201

**AREA 2: Mathematics – 3 credit hours (choose one of the following)**

STAT 145, Math 129, or Math 215

**AREA 3: Physical and Natural Sciences – 7 credit hours**

BIO 110/112L OR BIO 123/124L AND choose 1 additional course from the following:

**ANTH 120:** Arch. Method & Theory  
Physics

**ANTH 122L:** Req. Lab for ANTH 120 (1cr)  
PHYC 102 (1cr)

**Pre-Spring 2013 ANTH 121L:** Arch. M&T(4cr)  
Society

**ANTH 150:** Evol & Human Emergence

**ANTH 151L:** Opt. Lab for ANTH 150 (1cr)  
151 (1cr)

**ANTH 160:** Human Life Course

**ANTH 161L:** Opt. Lab for ANTH 160 (1cr)  
PHYC 152 (1cr)

**ASTR 101:** Intro to Astronomy

**ASTR 101L:** Opt. Lab for ASTR 101 (1cr)  
160 (1cr)

**BIOL 110:** Biology for Non-Majors

**BIOL 112:** Opt. Lab for BIOL 110 (1cr)  
161 (1cr)

**CHEM 101:** Chemistry in Our Community

**CHEM 111L:** Elem of General Chemistry (4cr)

**CHEM 121:** General Chemistry I

**CHEM 123L:** Req. Lab for Chem 121 (1cr)

**CHEM 122:** General Chemistry II

**CHEM 124L:** Req. Lab for Chem 122 (1cr)

**CHEM 131L:** (Honors) Gen. Chemistry I (4cr)

**CHEM 132L:** (Honors) Gen. Chemistry II (4cr)

**EPS 101:** Intro to Geology

**EPS 105L:** Opt. Lab for EPS 101 (1cr)

**EPS 201L:** Earth History (4cr)

**ENVS 101:** The Blue Planet  
Science (4cr)

**ENVS 102L:** Opt. Lab for ENVS 101  
(4cr)

**GEOG 101:** Physical Geography  
Science (4cr)

**UHON 203:** Science in the 21st Century

**PHYC 102:** Introduction to

**PHYC 102L:** Opt. Lab for

**PHYC 105:** Physics and

**PHYC 151:** General Physics

**PHYC 151L:** Opt. Lab for PHYC

**PHYC 152:** General Physics

**PHYC 152L:** Opt Lab for

**PHYC 160:** General Physics

**PHYC 160L:** Opt. Lab for PHYC

**PHYC 161:** General Physics

**PHYC 161L:** Opt. Lab for PHYC

**\*NTSC 261L:** Physical

**\*NTSC 262L:** Life Science

**\*NTSC 263L:** Environmental

**GEOG 105L:** Opt. Lab for GEOG 101 (1cr)

**AREA 4: Social and Behavioral Sciences – 6 credit hours. Choose 2 courses from the following:**

**AFTS / CCS / NATV / SUST / WMST 109:**  
World

Intro to Comparative and Global Ethnic Societies

**AMST 182:** Intro to Env. Sci. & Technology  
Politics

**AMST 185:** Race, Class & Ethnicity  
Politics

**ANTH 101:** Intro to Anthropology

**ANTH 130:** Cultures of the World  
Collective

**PSY 105:** General Psychology

**ECON 105:** Intro to Macroeconomics

**ECON 106:** Intro to Microeconomics

**CRP 181:** Intro to Environmental Problems

**ENGF 200:** Technology in Society

**GEOG 102:** Human Geography

**LING 101:** Intro to Linguistics

**POLS 110:** The Political

**POLS 200:** American Politics

**POLS 220:** Comparative

**POLS 240:** International

**SOC 101:** Intro to Sociology

**UHON 204:** Individual &

**AREA 5: Humanities – 6 credit hours: Choose 2 courses from the following**

**AFST 104:** Intro to Africana Studies  
American Studies

**AMST 186:** Intro to Southwest Studies  
Philosophical Problems

**CCS 201:** Intro to Chicana & Chicano Studies

**CLST 107:** Greek Mythology  
Kant

**CLST 204:** Greek Civilization  
Religions

**CLST 205:** Roman Civilization

**ENGL 150:** Study of Literature

**ENGL 292/293:** World Literatures

**GEOG 140:** World Regional Geography

**HIST 101L:** Western Civilization (to 1648)

**HIST 102L:** Western Civilization (from 1648)

**HIST 161L:** History of the US to 1877

**NATV 150:** Intro to Native

**PHIL 101:** Intro to

**PHIL 201:** Greek Thought

**PHIL 202:** From Descartes to

**RELG 107:** Living World

**RELG 263:** Eastern

Religions

**CLCS 223/224:** Literary Questions

Religions

**COMP 222:** Fairy and Folk Tales  
level

**COMP 224:** Literary Questions  
Society & Culture

**MLNG 101:** Languages

**HIST 162:** History of the US since 1877

**HIST 181:** History of Early Latin America

**HIST 182:** Modern Latin American History

**RELG 264:** Western

**UHON -** Honors Legacy Sem, 100-200

**UHON 205:** Humanities

### **AREA 6: Foreign Language – 3 credit hours**

One course chosen from any lower-division non-English language offerings from the Dept. of Linguistics (including Sign Language), Spanish and Portuguese, Foreign Languages and Literatures, and foreign languages in other depts. and programs (except Latin 105).

### **AREA 7: Fine Arts – 3 credit hours required. Choose 1 course from the following:**

**ARCH 121:** Intro to Architecture  
Appreciation

**Pre-Fall 2010 Arch 101:** Intro to Architecture  
Theatre Appreciation

**ARTH 101:** Intro to Art  
Global Perspective

**ARTH 201:** History of Art 1

**ARTH 202:** History of Art 2

**DANC 105:** Dance Appreciation

**FA 284:** Experiencing the Arts

**MA 210:** Intro to Film and Study

**MUS 139:** Music Appreciation

**MUS 142:** Rock Music Appreciation

**THEA 105:** Intro to Theatre

**Pre-Fall 2010 THEA 122:**

**UHON 207:** Fine Art as

Any 3 credit hour studio or performance course offered by the Department of Art and Art History, Music, Theatre and Dance, Media Arts or IFDM.

### **Additional Requirement - 3 credits hours**

NUTR 120 OR 224

In addition, the student must complete unrestricted electives for a minimum total of 120 credit hours. Consult the program faculty for specific courses. The student must complete 40 hours above 300.

## *Department of Individual, Family & Community Education*

*Bachelor of Science in Family and Child Studies (Revision of the Bachelor of Science in Family Studies)*

*Concentration: Early Childhood Education and Development [ECED] (120 Credit Hours)*

*Justification of the proposed concentration, impact of long range planning, faculty work load, and budget analysis:*

*The proposed concentration is part of the revision of the Bachelor of Science degree in Family Studies. It is a 120 degree program that meets the strong need in the state to allow professionals working in family support, early care, and early education to complete a non licensure bachelor degree program in early education. UNM has only offered a bachelor degree in early education that leads to state licensure and therefore requires its majors to complete one full semester of student teaching. Head Start employees, early care providers, home visitors do not require state teaching license but do require completion of a bachelor degree in early education and development.*

*Please see Executive Summary for the proposed revision of the Bachelor of Science in Family Studies for the detailed budget implication, two year schedule of classes, and faculty work load implications.*

**Current user: cclark48 / Comments (7) / Form Transaction Log**  
**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1726

Fields marked with \* are required

Name of Initiator: Shoshana Handel Email: [shandel@unm.edu](mailto:shandel@unm.edu) Phone Number: 505 277-2501 Date: 10-23-2015Associated Forms exist?\*  Initiator's Title\* Coordinator, Grad Academic Advisement: Dept of Soc

Faculty Contact\* Christopher Lyons &amp;

Administrative Contact\* Shoshana Handel

Department\* Sociology

Admin Email\* [shandel@unm.edu](mailto:shandel@unm.edu)

Branch

Admin Phone\* 277-2501

Proposed effective term

Semester  Year **Course Information**Select Appropriate Program\* 

Name of New or Existing Program\* PhD Sociology

Select Category \*  Degree Type PhDSelect Action **Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[FA16 GRAD CAT.pdf](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

The attached proposal was unanimously passed by the Sociology Faculty on Oct.2, 2015. It describes in detail the reason and rational for the request.

[QUAL REQ.pdf](#)**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[Budget\\_Qual.docx](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[View Comments on this Form](#)  
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Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001

### Current Catalog:

Specific requirements for all students seeking a Ph.D. in Sociology include (all required courses must be passed with at least a grade of "B-"):

- SOC 500 Classical Social Theory;
  - One of the following courses in Contemporary Theory: SOC 513 Constructing and Analyzing Contemporary Sociological Theory; OR SOC 514 20th Century European Theory;
  - SOC 523 Proseminar (students should take this course as early in their careers as possible);
  - SOC 580 Methods of Social Research I;
  - SOC 581 Advanced Social Statistics I;
  - SOC 582 Advanced Social Statistics II; and another quantitative or qualitative methods course approved by the Graduate Advisor;
  - SOC 699 Dissertation (18 credit hours);
  - Comprehensive Examinations (written and oral);
- Ph.D. dissertation and passing the Final Examination for Doctorate.

### Proposed Change:

Specific requirements for all students seeking a Ph.D. in Sociology include (all required courses must be passed with at least a grade of "B-"):

- SOC 500 Classical Social Theory;
  - One of the following courses in Contemporary Theory: SOC 513 Constructing and Analyzing Contemporary Sociological Theory; OR SOC 514 20th Century European Theory;
  - SOC 523 Proseminar (students should take this course as early in their careers as possible);
  - SOC 580 Methods of Social Research I;
  - SOC 581 Advanced Social Statistics I;
  - SOC 582 Advanced Social Statistics II; ~~and another quantitative or qualitative methods course approved by the Graduate Advisor;~~
  - **SOC 585 Sociological Fieldwork Methods: Ethnography, Interviews, Focus Groups;**
  - SOC 699 Dissertation (18 credit hours);
  - Comprehensive Examinations (written and oral);
- Ph.D. dissertation and passing the Final Examination for Doctorate.



## Recommendations for required Graduate Qualitative Methods course

The Graduate Committee recommends changing the graduate curriculum to require Ph.D. students to complete a graduate level course in qualitative methods. The required course would be designed with four objectives in mind: (1) to give graduate students basic training in qualitative research, including issues of conceptualization, theory, research design, strategies for framing questions, and data analysis, (2) to provide various domains or topical areas in sociology where qualitative work has made, and continues to make, major contributions, (3) to examine the ethical responsibilities of qualitative researchers, and to (4) to train students to think critically about the forms of writing (articles, dissertations, books, etc.) and professional presentations that sociologists must master to present qualitative work to their peers and the public. The following are justifications for the change:

1. It is important that all graduate students have a strong foundation in both quantitative and qualitative methods so that they are well trained and have the same basic preparation regardless of the methods they choose to use in their own research projects. Because graduate students need to be able to read and evaluate work in major journals, teach courses that utilize research with various methodological approaches, and mentor students conducting diverse projects, qualitative training is essential. Currently, graduate students are trained rigorously in quantitative methods regardless of whether they intend to work on quantitative projects. The lack of a qualitative methods requirement leaves a serious gap in students' graduate education, leaving them unprepared to tackle ambitious qualitative and mixed-methods projects. It also limits the kinds of projects they might consider or conduct in the future.
2. Qualitative work requires a unique set of skills and knowledge that, like statistics, cannot be learned intuitively without training. It must be taught rigorously. Although the basics of research design apply to both quantitative and qualitative approaches, there are issues that are unique to qualitative projects that must be mastered, including how to choose and justify cases, how to think about causality and causal mechanisms, how to design effective interview instruments, how to code data and use qualitative coding software (among many other issues). Having a solid research design is the key to any good research project; it is very difficult with qualitative research, however, to correct problems once fieldwork has begun and nearly impossible once it is completed. Having a strong foundation in qualitative methods will allow graduate students to conduct projects that are well designed from the beginning, and to troubleshoot potential problems (e.g., selecting cases on the dependent variable) that could undermine a project before they enter the field.
3. A department's curriculum reflects what it deems the essential components of a graduate education. Required courses send a signal about what a department values. Requiring a qualitative methods course reinforces the department's commitment to strong and rigorous research of all kinds.
4. Requiring a graduate qualitative methods course would make our curriculum consistent with peer institutions, and the top sociology departments, most of which require graduate qualitative methods courses.
5. The ethical considerations of qualitative research are unique and all graduate students should be exposed to them at the beginning of their graduate careers. Unlike researchers who utilize pre-existing quantitative data sets, researchers engaged in qualitative work often have close contact with research participants and are held to high standards of ethical responsibility within the discipline and by university institutional review boards (IRBs). All graduate students should understand the IRB process and the ethical concerns that directly engaging participants raise.
6. NOT REQ. SKILLS THAT WE DON'T VALUE IT.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.**

The proposed change will have no impact on department resources (budgetary or workload). The program already required that all PhD students take a fourth methodology course. This meant that faculty had to offer a methodology course as part of their regular teaching load. The new requirement of a specific (SOC 585) course was discussed in detail at the faculty meeting and it was agreed that there are an adequate number of faculty who are qualified to teach the course, and that it can easily fit into their teaching rotation.

**Current user: cclark48 / Comments (7) / Form Transaction Log**  
**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1747

Fields marked with \* are required

Name of Initiator: Naomi Shin Email: [naomishin@unm.edu](mailto:naomishin@unm.edu) Phone Number: 505 277-6353 Date: 10-28-2015Associated Forms exist?\*  Initiator's Title\* Assistant Professor: Linguistics Department

Faculty Contact\* Naomi Shin

Administrative Contact\* Martha Hurd

Department\* Spanish &amp; Portuguese

Admin Email\* [marthah@unm.edu](mailto:marthah@unm.edu)

Branch

Admin Phone\* 5052772974

Proposed effective term

Semester  Year **Course Information**Select Appropriate Program\* 

Name of New or Existing Program\* MA Spanish- Hispanic Linguistics Concentration

Select Category \*  Degree Type MASelect Action **Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[2016\\_HispLingMAChanges.docx](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

To make our number of required credits consistent with other Span/Port MA programs. For example, Hispanic Literature requires "18 credit hours of Hispanic Literature "

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[2016\\_HispLingChangesJustification.docx](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[View Comments on this Form](#)  
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Currently says:

### **Concentration in Hispanic Linguistics**

- 21 credit hours in Hispanic Linguistics (teaching methodology class, e.g., SPAN 541, may not be included).
- 3 credit hours of Hispanic Literature.
- 3 credit hours of Portuguese or Hispanic Southwest Studies.
- 6 credit hours of electives or of thesis.

All Spanish course work counted toward M.A. credit requirements must be in courses approved by the Department at the 500-level or above with the exception of SPAN \*423 (Cervantes' Quijote), and SPAN \*438 (Mexican Literature). **Relevant electives outside the Department may be taken only if pre-approved by the departmental Graduate Committee.**

### **New wording:**

### **Concentration in Hispanic Linguistics**

- 18 credit hours in Hispanic Linguistics (teaching methodology class, e.g., SPAN 541, may not be included).
- 6 credit hours of Hispanic Literature or Portuguese or Hispanic Southwest Studies.
- 6 credit hours of electives or of thesis.

All Spanish course work counted toward M.A. credit requirements must be in courses approved by the Department at the 500-level or above with the exception of SPAN \*423 (Cervantes' Quijote), and SPAN \*438 (Mexican Literature). **Relevant electives outside the Department may be taken only if pre-approved by the departmental Graduate Committee.**

Justification.

Note that the changes requested have no impact on departmental budgets, faculty workload, or long-range planning.

1. We are requesting that we **reduce the number of credits** of Hispanic Linguistics courses required in our Hispanic Linguistics MA program from 21 to 18.

The reason for this is that other MA programs in Spanish & Portuguese require 18 credits, such as Hispanic Literature (see catalog, which says: “**Concentration in Hispanic Literature** 18 credit hours of Hispanic Literature evenly divided between Spanish American and Peninsular Spanish courses. SPAN 601 (Literary Theory) may be included.” Note, too, that Southwest Spanish requires 12 credit hours of courses in Southwest Spanish. In other words, by reducing the number of Hispanic Linguistics credit hours required, we are making our program more in line with the other programs and we build in a little more flexibility for our students. By increasing the flexibility for our students we make our MA program more desirable to students who may wish to experience a more interdisciplinary program. Given that there is a large push to increase interdisciplinary work, this is in line with a general trend across the United States.

2. We are also requesting a minor in terms of the 6 credit hours that Hispanic Linguistics students need to take in other Span/Port Programs. Currently our students must take the following:

3 credit hours of Hispanic Literature. AND

3 credit hours of Portuguese or Hispanic Southwest Studies.

It was suggested to us in a Span/Port faculty meeting that this be changed to: 6 credits of Hispanic Literature or Portuguese or Hispanic Southwest Studies.

The reason for this was to again build in more flexibility. For example, perhaps a student in Hispanic Linguistics will want to have a secondary area of scholarship in Portuguese, our new distribution of credits will allow that student to take more courses in Portuguese (likewise for Hispanic Literature or

Southwest Studies).

**Current user: cclark48 / Comments (8) / Form Transaction Log**  
**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1790

Fields marked with \* are required

Name of Initiator: John David Quale Email: [quale@unm.edu](mailto:quale@unm.edu) Phone Number: 505 277-1199 Date: 10-31-2015

Associated Forms exist?\* Yes ▾ Initiator's Title\* Professor: SAAP Architecture Program

Faculty Contact\* John Quale

Administrative Contact\* John Quale

Department\* Architecture

Admin Email\* [quale@unm.edu](mailto:quale@unm.edu)

Branch

Admin Phone\* 505-277-1199

Proposed effective term

Semester Fall ▾ Year 2016 ▾

**Course Information**

Select Appropriate Program\* Undergraduate Degree Program ▾

Name of New or Existing Program\* BAA - Design Studies Concentration (NEW)

Select Category \* Concentration ▾ Degree Type BAA

Select Action New ▾

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[BAA curriculum Design Studies concentration FINAL.xlsx](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

This does not impact other departmental programs or branch campuses. See description attached below. [REGISTRAR'S NOTE TO VAL: SEE COMMENTS.]

[BAA Design Studies Concentration.pdf](#)**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[BAA Design Studies Concentration.pdf](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[View Comments on this Form](#)  
[Comment on this Form](#) or [Review Forms](#)

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## Bachelor of Arts in Architecture (BAA): Design Studies Concentration

UNM Core Courses are shown in suggested location, but they may be taken in other semesters. Design Studies students can take any additional architecture course requirements as long as they have the prerequisites.

### FIRST YEAR FALL

|          |                                                                              |           |
|----------|------------------------------------------------------------------------------|-----------|
| ARCH 111 | Introduction to Architectural Graphics                                       | 3         |
| ARCH 121 | Introduction to Architecture                                                 | 3         |
|          | UNM Core Physical & Natural Sciences - 1 course and 1 lab                    | 4         |
| MATH     | UNM Core Math - 1 course                                                     | 3         |
| ENGL     | UNM Core Writing and Speaking - ENGL 110 or ENGL 112 or ENGL 113 Composition | 3         |
|          | <b>Total</b>                                                                 | <b>16</b> |

### FIRST YEAR SPRING

|          |                                                  |           |
|----------|--------------------------------------------------|-----------|
| ARCH 109 | Design Fundamentals                              | 3         |
|          | UNM Core Social & Behavioral Sciences - 1 course | 3         |
|          | UNM Core Humanities - 1 course                   | 3         |
| ENGL 120 | UNM Core Writing and Speaking - Composition 3    | 3         |
| ARCH 133 | Physics & Math for Designers                     | 3         |
|          | <b>Total</b>                                     | <b>15</b> |
|          | <b>1st Year Minimum Total</b>                    | <b>31</b> |

### SECOND YEAR FALL

|          |                                                 |           |
|----------|-------------------------------------------------|-----------|
| ARCH 201 | Architectural Design I                          | 5         |
| ARCH 472 | Architectural Visualization *                   | 1         |
| ARCH 223 | World Architecture I                            | 3         |
| ARCH 233 | Sustainability I                                | 3         |
|          | UNM Core Physical & Natural Sciences - 1 course | 3         |
|          | <b>Total</b>                                    | <b>15</b> |

### SECOND YEAR SPRING

|          |                                                  |           |
|----------|--------------------------------------------------|-----------|
| ARCH 202 | Architectural Design II                          | 5         |
| ARCH 472 | Architectural Visualization *                    | 1         |
| ARCH 224 | World Architecture II                            | 3         |
| ARCH 251 | Design Thinking                                  | 3         |
|          | UNM Core Social & Behavioral Sciences - 1 course | 3         |
|          | <b>Total</b>                                     | <b>15</b> |
|          | <b>2nd Year Minimum Total</b>                    | <b>30</b> |

### THIRD YEAR FALL

|          |                                         |           |
|----------|-----------------------------------------|-----------|
| ARCH 301 | Architectural Design III                | 5         |
| ARCH 472 | Architectural Visualization *           | 1         |
| ARCH 332 | Architectural Structures I              | 3         |
|          | Electives                               | 3         |
|          | UNM Core Writing and Speaking -1 course | 3         |
|          | <b>Total</b>                            | <b>15</b> |

### THIRD YEAR SPRING

|          |                                             |           |
|----------|---------------------------------------------|-----------|
| ARCH 302 | Architectural Design IV                     | 5         |
| ARCH 323 | Architecture and Context                    | 3         |
| ARCH 324 | Architectural Theory                        | 3         |
|          | Elective** Digital Media course recommended | 3         |
|          | <b>Total</b>                                | <b>14</b> |
|          | <b>3rd Year Minimum Total</b>               | <b>29</b> |

### FOURTH YEAR FALL

|  |                                                                                                                                                                                                                                         |           |
|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
|  | Courses selected from list of Design Electives (including interior design, industrial design, fabrication, furniture design, product design, graphic design, digital media, others as offered) or Architectural Visualization Electives | 6         |
|  | open electives                                                                                                                                                                                                                          | 3         |
|  | UNM Core Humanities - 1 course                                                                                                                                                                                                          | 3         |
|  | UNM Core Foreign Language - 1 course                                                                                                                                                                                                    | 3         |
|  |                                                                                                                                                                                                                                         | <b>15</b> |

### FOURTH YEAR SPRING

|          |                               |            |
|----------|-------------------------------|------------|
| ARCH 450 | Design Leadership             | 3          |
|          | open electives                | 12         |
|          | <b>Total</b>                  | <b>15</b>  |
|          | <b>4th Year Minimum Total</b> | <b>30</b>  |
|          | <b>GRAND TOTAL</b>            | <b>120</b> |

\*BAA students can take these Architectural Visualization classes from among any of the 1 or 2 credit ARCH 472 options anytime during their curriculum.



## **Bachelor of Arts in Architecture (BAA) Design Studies Concentration **PROPOSED****

Approximately 25% to 30% of our BAA students choose not to pursue a career in a conventional architectural practice. Many of them are deeply interested in design, but not necessarily interested in becoming a licensed architect. We already offer courses in interior design, industrial design, digital media, digital and conventional fabrication, furniture design, and various aspects of visualization ranging from 3D modeling software to graphic design for architectural presentations.

Because these courses are already offered as required and elective courses for our BAA, Master of Architecture (MArch) and Master of Science in Architecture (MSArch) students, the Architecture faculty recently voted unanimously to approve a concentration in Design Studies. The concentration will be offered as an alternative for BAA students -- the other choice will be a concentration in Pre-Professional Architecture. The Pre-Professional Architecture Concentration will appeal to those students who want to pursue an accredited Master of Architecture (MArch) degree, such as the one we offer at UNM. An MArch is required to be able to take the licensing exam in New Mexico, and most other states.

The students in the Design Studies Concentration will take the same courses for the first two years of their degree, but as they get into the 3<sup>rd</sup> year, they will have more choices. The 3<sup>rd</sup> year is when the Pre-Professional Concentration moves into more technically-oriented courses to prepare them for the MArch. In recent years, several students have complained that they don't want to take these more strictly architectural courses, and would prefer more freedom.

Some of the alternative career paths that our BAA alumni have chosen include: video game design, landscape architecture, theme park design, art, graphic design, digital media development, urban design, web design, 3D modeling software development, energy modeling, sustainability consulting (include LEED certification consulting), construction management, real estate development, and more.

The Director of the Master of Landscape Architecture (MLA) program in the School of Architecture + Planning has already prepared a list of classes that our Design Studies students can pursue and receive advanced standing in the MLA degree program. We expect our Design Studies graduates to move directly into alternative careers, or receive advanced standing in graduate programs that align with their ultimate career trajectory.

We feel it is our responsibility to offer a positive choice to these students. It does not serve them well to feel marginalized in the BAA. In fact, some of our very best designers are likely to choose the Design Studies concentration. Other universities, such as the University of Michigan, the University of California – Berkeley, and the University of Virginia have similar tracks or concentrations.

Some have even gone so far as to create a separate degree. We do not feel comfortable pursuing a separate degree at this point because we want to experiment with this concentration for three to five years. We want to see if this increases the enrollment in the BAA, and if there are any difficulties that emerge in the administration of the concentration. If strong enrollment is found in specific courses, such as 3D modeling, interior design or urban design (fields closely related to architecture) we may consider establishing separate degrees in those fields.

**Implications on Faculty Load and / or Budget:**

We do not expect to immediately hire any additional faculty above and beyond those we have teaching full-time or part-time at this time. We currently offer these courses, and within our current resources, we will be able to operate this concentration. It is likely we will use some of the current part-time faculty funding to hire someone to teach a couple of design studios that will be available to both Design Studies and Pre-Professional Architecture concentration students. However, if enrollment does grow, we can imagine the possibility of hiring additional full-time or part-time faculty to support the courses.

Students in the Design Studies Concentration are required to prepare a plan of study with proposed coursework connected to their interests in design. It must be approved by a faculty advisor that they select, and also by the Architecture Director. A Senior Project is an option for these students, but it must also be approved by a faculty advisor and the Director. The faculty members that are asked to serve as an advisor have minimum load impact, unless the student also chooses to pursue a Senior Project. In that case, the faculty load policy will treat that advising role in the same way a faculty member advises a student pursuing a Masters Project or a Masters Thesis.

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**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1793

Fields marked with \* are required

Name of Initiator: John David Quale Email: [quale@unm.edu](mailto:quale@unm.edu) Phone Number: 505 277-1199 Date: 10-31-2015

Associated Forms exist?\* Yes ▾ Initiator's Title\* Professor: SAAP Architecture Program

Faculty Contact\* John Quale

Administrative Contact\* John Quale

Department\* Architecture

Admin Email\* [quale@unm.edu](mailto:quale@unm.edu)

Branch

Admin Phone\* 505-277-1199

Proposed effective term

Semester Fall ▾ Year 2016 ▾

**Course Information**

Select Appropriate Program\* Undergraduate Degree Program ▾

Name of New or Existing Program\* BAA Pre-Professional Concentration (NEW)

Select Category \* Concentration ▾ Degree Type undergraduate

Select Action New ▾

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[BAA Pre-Professional Architecture Concentration FINAL.xlsx](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

no [REGISTRAR'S NOTE TO VAL: SEE COMMENTS.]

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[BAA Pre-Professional Architecture Concentration.pdf](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[View Comments on this Form](#)  
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# Bachelor of Arts in Architecture (BAA) Pre- Professional Architecture Concentration

*UNM Core Courses are shown in suggested location, but they may be taken in other semesters.*

## FIRST YEAR FALL

|          |                                                                              |           |
|----------|------------------------------------------------------------------------------|-----------|
| ARCH 111 | Introduction Architectural Graphics                                          | 3         |
| ARCH 121 | Introduction to Architecture                                                 | 3         |
|          | UNM Core Physical & Natural Sciences - 1 course and 1 lab                    | 4         |
| MATH     | UNM Core Math - 1 course                                                     | 3         |
| ENGL     | UNM Core Writing and Speaking - ENGL 110 or ENGL 112 or ENGL 113 Composition | 3         |
|          |                                                                              | <b>16</b> |

## FIRST YEAR SPRING

|          |                                                  |           |
|----------|--------------------------------------------------|-----------|
| ARCH 109 | Design Fundamentals                              | 3         |
|          | UNM Core Social & Behavioral Sciences - 1 course | 3         |
|          | UNM Core Humanities - 1 course                   | 3         |
| ENGL 120 | UNM Core Writing and Speaking - Composition 3    | 3         |
| ARCH 133 | Physics & Math for Designers                     | 3         |
|          |                                                  | <b>15</b> |
|          | <b>1st Year Minimum Total</b>                    | <b>31</b> |

## SECOND YEAR FALL

|          |                                                 |           |
|----------|-------------------------------------------------|-----------|
| ARCH 201 | Architectural Design I                          | 5         |
| ARCH 472 | Design Visualization *                          | 1         |
| ARCH 223 | World Architecture I                            | 3         |
| ARCH 233 | Sustainability I                                | 3         |
|          | UNM Core Physical & Natural Sciences - 1 course | 3         |
|          | <b>Total</b>                                    | <b>15</b> |

## SECOND YEAR SPRING

|          |                                                  |           |
|----------|--------------------------------------------------|-----------|
| ARCH 202 | Architectural Design II                          | 5         |
| ARCH 472 | Design Visualization *                           | 1         |
| ARCH 224 | World Architecture II                            | 3         |
| ARCH 251 | Design Thinking                                  | 3         |
|          | UNM Core Social & Behavioral Sciences - 1 course | 3         |
|          | <b>Total</b>                                     | <b>15</b> |
|          | <b>2nd Year Minimum Total</b>                    | <b>30</b> |

## THIRD YEAR FALL

|          |                                         |           |
|----------|-----------------------------------------|-----------|
| ARCH 301 | Architectural Design III                | 5         |
| ARCH 472 | Design Visualization *                  | 1         |
| ARCH 332 | Architectural Structures I              | 3         |
| ARCH 331 | Construction I                          | 3         |
|          | UNM Core Writing and Speaking -1 course | 3         |
|          | <b>Total</b>                            | <b>15</b> |

## THIRD YEAR SPRING

|          |                                                                                                 |           |
|----------|-------------------------------------------------------------------------------------------------|-----------|
| ARCH 302 | Architectural Design IV                                                                         | 5         |
| ARCH 323 | Architecture and Context                                                                        | 3         |
| ARCH 324 | Architectural Theory                                                                            | 3         |
| ARCH 333 | Architectural Structures II; <i>recommended for future Track 2 MArch students (or elective)</i> | 3         |
|          | <b>Total</b>                                                                                    | <b>14</b> |
|          | <b>3rd Year Minimum Total</b>                                                                   | <b>29</b> |

## FOURTH YEAR FALL

|          |                                                                                       |           |
|----------|---------------------------------------------------------------------------------------|-----------|
| ARCH 401 | Architectural Design V                                                                | 6         |
| ARCH 433 | Sustainability II; <i>recommended for future Track 2 MArch students (or elective)</i> | 3         |
|          | UNM Core Humanities - 1 course                                                        | 3         |
|          | UNM Core Foreign Language - 1 course                                                  | 3         |
|          | <b>Total</b>                                                                          | <b>15</b> |

## FOURTH YEAR SPRING

|          |                               |            |
|----------|-------------------------------|------------|
| ARCH 402 | Architectural Design VI       | 6          |
| ARCH 450 | Design Leadership             | 3          |
|          | Non-Architectural Elective    | 3          |
|          | Non-Architectural Elective    | 3          |
|          | <b>Total</b>                  | <b>15</b>  |
|          | <b>4th Year Minimum Total</b> | <b>30</b>  |
|          | <b>GRAND TOTAL</b>            | <b>120</b> |

\*BAA students can take these Architectural Visualization classes from among any of the 1 or 2 credit ARCH 472 options anytime during their curriculum.

**Current user: cclark48 / Comments (8) / Form Transaction Log**  
**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1799

Fields marked with \* are required

Name of Initiator: Colleen Sheinberg Email: [colleens@unm.edu](mailto:colleens@unm.edu) Phone Number: 505 277-8401 Date: 11-01-2015

Associated Forms exist?\* Yes Initiator's Title\* Temp Parttime Faculty: Music

Faculty Contact\* Colleen Sheinberg

Administrative Contact\* Steven Block

Department\* Music

Admin Email\* sblock@unm.edu

Branch

Admin Phone\* 277-2126

Proposed effective term

Semester Fall Year 2016

**Course Information**

Select Appropriate Program\* Undergraduate Degree Program

Name of New or Existing Program\* Bachelor of Music, Theory and Composition Concentration

Select Category\* Concentration Degree Type undergraduate

Select Action Revision

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[BM Th:Comp Catalog Text.pdf](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

See attached document.

[BM Th:Comp Reasons.pdf](#)**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[BM Th:Comp Impact.pdf](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[View Comments on this Form](#)  
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# Supplement to Form C: Bachelor of Music, Theory and Composition Concentration

## Current and Revised Catalog Text

[Current text]:

### 1. Core Curriculum (37 hrs)....

### 2. Concentration Curriculum as follows (91 –97 hrs):....

#### Theory and Composition Concentration

- a. six semesters of MUS 101 *Concert Music* with a grade of CR;
- b. 5 hours of applied music in the principal instrument;
- c. 23 hours in music theory, including 150, 150L, 152, 152L, 250, 250L, 252, 252L, either 405 or 406, 309 and 325.
- d. 12 hours in composition, including 254, 305, 306, 453, 4 hours of Applied Music in Composition (APMS 319 and 320), and APMS 491 *Senior Recital* with a grade of CR;
- e. 12 hours in music history, including 361, 362, 416, and 3 hours chosen from 413, 414, 415 or 437;
- f. 4 hours in conducting, including 363 and 365;
- g. 6 hours in ensemble (see Ensemble Requirements for specific requirements);
- h. 4 hours in technology, including 311 and 412;
- i. 3 hours selected from any courses listed under Ethnomusicology, or MUSE 293;
- j. MUS 214 *Piano Proficiency* with a grade of CR;
- k. 5 hours of electives in Music, Applied Music or Music Education;
- l. 6 hours of electives, including 3 hours in the College of Fine Arts, and not including courses in Music, Applied Music or Music Education.
- m. 11 hours of electives in the focus area (composition, theory or technology), to be selected from the following courses:
  - up to 3 additional hours of Applied Music in Composition (APMS 419, 420);
  - 380 *Recording Techniques I*
  - 2 additional hours of Counterpoint (405 or 406);
  - 407 *Selected Topics in Music Composition*
  - 421 *Introduction to Max Programming for Musicians*
  - up to 6 hours of 439 *Selected Topics in Music Theory*;
  - 481 *Recording Techniques II*
  - IFDM 491 *Topics in Film & Digital Media*

|          |     |
|----------|-----|
| Subtotal | 91  |
| Total    | 128 |

[Revised text]:

### 1. Core Curriculum (37 hrs)....

### 2. Concentration Curriculum as follows (91 –97 hrs):....

#### Theory and Composition Concentration

- a. six semesters of MUS 101 *Concert Music* with a grade of CR;
- b. 5 hours of applied music in the principal instrument;
- c. 23 hours in music theory, including 150, 150L, 152, 152L, 250, 250L, 252, 252L, either 405 or 406, 309 and 325.
- d. 12 hours in composition, including 254, 305, 306, 453, 4 hours of Applied Music in Composition (APMS 319 and 320), and APMS 491 *Senior Recital* with a grade of CR;
- e. 12 hours in music history, including 361, 362, 416, and 3 hours chosen from 413, 414, 415 or 437;
- f. 4 hours in conducting, including 363 and 365;
- g. 6 hours in ensemble (see Ensemble Requirements for specific requirements);
- h. 4 hours in technology, including 311 and 412;
- i. 3 hours selected from any courses listed under Ethnomusicology, or MUSE 293;
- j. MUS 214 *Piano Proficiency* with a grade of CR;
- k. **MUS 314 *Theory and Composition Keyboard Proficiency* with a grade of CR;**
- [l.] 5 hours of electives in Music, Applied Music or Music Education;
- [m.] 6 hours of electives, including 3 hours in the College of Fine Arts, and not including courses in Music, Applied Music or Music Education.
- [n.] 11 hours of electives in the focus area (composition, theory or technology), to be selected from the following courses:
  - up to 3 additional hours of Applied Music in Composition (APMS 419, 420);
  - 380 *Recording Techniques I*
  - 2 additional hours of Counterpoint (405 or 406);
  - 407 *Selected Topics in Music Composition*
  - 421 *Introduction to Max Programming for Musicians*
  - up to 6 hours of 439 *Selected Topics in Music Theory*;
  - 481 *Recording Techniques II*
  - IFDM 491 *Topics in Film & Digital Media*

|          |     |
|----------|-----|
| Subtotal | 91  |
| Total    | 128 |

**Supplement to Form C**  
**for**  
**Bachelor of Music, Concentration in Theory & Composition**

Reasons for Request

In Section 2 ("Concentration Curriculum"), the addition of MUS 314 as item k. in the list of requirements is being made in order to provide transcript evidence of the currently existing keyboard skills requirement for Bachelor of Music Theory and Composition majors. At the request of the College of Fine Arts Advisement Office, the creation of MUS 314 will allow better tracking of students' completion of this requirement. A Form B is being submitted to create MUS 314 as a new course number.

**Form C**  
**Bachelor of Music, Concentration in Theory and Composition**

Justification, Impact on Long-Range Planning, Budget/Load

**Justification**

This course is being instituted in order to provide transcript evidence of the currently existing keyboard skills requirement for Bachelor of Music Theory and Composition majors. At the request of the College of Fine Arts Advisement Office, the creation of MUS 314 will allow better tracking of students' completion of this requirement.

**Impact on Long-Range Planning**

The Music area is committed to continually improving and updating its programs as needed in order to provide quality degrees in the field of music.

**Budget/Faculty Load**

There will be no additions to faculty workload and therefore no budgetary changes as a result of the creation of MUS 314. The keyboard skills that comprise the course content are already being assessed by theory and composition faculty as part of their regular loads. MUS 314 merely formalizes the process for tracking purposes.



**Current user: cclark48 / Comments (9) / Form Transaction Log**  
**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1800

Fields marked with \* are required

Name of Initiator: Colleen Sheinberg Email: [colleens@unm.edu](mailto:colleens@unm.edu) Phone Number: 505 277-8401 Date: 11-01-2015

Associated Forms exist?\* Yes Initiator's Title\* Temp Parttime Faculty: Music

Faculty Contact\* Colleen Sheinberg

Administrative Contact\* Steven Block

Department\* Music

Admin Email\* [sblock@unm.edu](mailto:sblock@unm.edu)

Branch

Admin Phone\* 277-2126

Proposed effective term

Semester Fall Year 2016

**Course Information**

Select Appropriate Program\* Undergraduate Degree Program

Name of New or Existing Program\* Bachelor of Music Education, Instrumental Concentration

Select Category \* Concentration Degree Type undergraduate

Select Action Revision

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[BME Instr-Sequence.pdf](#)[BME Instr-Catalog Text Rev.pdf](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

See attached document.

[BME Instr-Reasons.pdf](#)**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[BME Instr-Impact.pdf](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[View Comments on this Form](#)  
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Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001

# Supplement to Form C: Bachelor of Music Education, Instrumental Concentration

## Current and Revised Catalog Text

[Current text]:

### Instrumental Concentration

Includes emphases in strings, wind, percussion, piano or guitar.

#### 1. General Education

- a. 12 hours of English, including 3 hours of English literature elective and the following courses:  
ENGL 101 Composition I: Exposition  
ENGL 102 Composition II: Analysis & Argument  
and one of the following:  
CJ 130 Public Speaking  
CJ 220 Communication for Teachers
- b. 6 hours of electives in mathematics, to be selected from the list of courses under College of Fine Arts Graduation Requirements and from MATH 111 *Mathematics for Elementary and Middle School Teachers*. NOTE: MATH 101, 102 and 103 cannot fulfill this requirement.
- c. 12 hours in science, including PHYC 108 *Introduction to Musical Acoustics*, PHYC 108L *Musical Acoustics Laboratory*, and 8 hours of electives, to be selected from the list of courses in Physical and Natural Sciences under College of Fine Arts Graduation Requirements
- d. 6 hours in Social and Behavioral Sciences, including PSY 105 *General Psychology* and PSY 220 *Developmental Psychology*
- e. 12 hours in general history, including:  
HIST 101 Western Civilization  
HIST 102 Western Civilization  
HIST 161L History of the United States to 1877  
HIST 162L History of the United States Since 1877
- f. 6 hours of electives in Fine Arts, to be selected from Art History, Art Studio, Theatre, Dance or Media Arts;
- g. 3 hours in foreign language (see CFA Graduation Requirements)
- h. 2 hours of electives in any area, including music (for string emphasis only)

|                                                                |           |
|----------------------------------------------------------------|-----------|
| <b>Subtotal for String Emphasis</b>                            | <b>59</b> |
| <b>Subtotal for Wind, Percussion, Piano or Guitar Emphasis</b> | <b>57</b> |

[Revised text]:

### Instrumental Concentration

Includes emphases in strings, wind, percussion, piano or guitar. [NOTE: A student's emphasis is determined by his or her principal instrument; however, for a piano or guitar emphasis, the student must also be proficient in a secondary instrument (strings, wind or percussion).]

#### 1. General Education

- [a. 9 hours of English, including the following:  
ENGL 110 (or ENGL 112 or ENGL 113);  
ENGL 120;  
one additional course chosen from ENGL 219,  
ENGL 220, CJ 130, PHIL 156, UHON 201
- b. 6 hours of electives in mathematics, including 3 hours of math elective and 3 hours to be selected from the list of courses under College of Fine Arts Graduation Requirements.
- c. 8 hours in science, including PHYC 108 *Introduction to Musical Acoustics*, PHYC 108L *Musical Acoustics Laboratory*, and 4 hours of electives to be selected from the list of courses in Physical and Natural Sciences under College of Fine Arts Graduation Requirements.
- d. 9 hours in Social and Behavioral Sciences, including PSY 105 *General Psychology* and EDPY 303 *Human Growth and Development* and 3 hours of electives to be selected from the list of courses in Social and Behavioral Sciences under College of Fine Arts Graduation Requirements
- e. 6 hours of electives in humanities, to be selected from the list of courses in Humanities under College of Fine Arts Graduation Requirements
- f. 3 hours of electives in Fine Arts, to be selected from Art History, Art Studio, Theatre, Dance or Media Arts;]
- g. 3 hours in foreign language (see CFA Graduation Requirements)
- h. 2 hours of electives in any area, including music (for string emphasis only)

|                                                                |             |
|----------------------------------------------------------------|-------------|
| <b>Subtotal for String Emphasis</b>                            | <b>[46]</b> |
| <b>Subtotal for Wind, Percussion, Piano or Guitar Emphasis</b> | <b>[44]</b> |

## 2. Teaching Field: Music

- a. four semesters of MUS 101 *Concert Music* with a grade of CR;
- b. 7 hours of applied music in the principal instrument (voice, piano or guitar), including APMS 119, 120, 219, 220, 319, 320, 419 and 491;
- c. 18 hours in music theory, including MUS 150, 150L, 152, 152L, 250, 250L, 252, 252L and 453;
- d. 6 hours in music history (MUS 361 and 362)
- e. 2 hours in conducting (MUSE 363);
- f. 1 hour of improvisation (MUS 236);
- g. 3 hours selected from any courses listed under Ethnomusicology, or Mus Ed 293;
- h. MUS 214 *Piano Proficiency* with a grade of CR;
- i. 2 hours vocal study, including 1 hour in either MUS 109 or APMS 119 (Voice) and 1 hour of either MUS 143 or MUSE 242 or MUSE 243.

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**Subtotal** **39**

## 3. Professional Education: Music Education

- a. 7 hours in ensemble (see Ensemble Requirements for specific requirements)
- b. 8 hours in MUSE *Orchestral Instruments*
- c. 14 to 17 hours in music education methods, including:

|          |                                                          |   |
|----------|----------------------------------------------------------|---|
| MUSE 195 | Introductory Teaching Practicum                          | 1 |
| MUSE 215 | Instrumental Lab (2 semesters with a grade of CR),       |   |
| MUSE 315 | Instrumental Music Methods                               | 3 |
| MUSE 317 | Jazz Methods (not required for string emphasis)          | 1 |
| MUSE 441 | Marching Band Methods (not required for string emphasis) | 2 |
| MUSE 346 | Teaching Music in the Elementary Schools                 | 3 |
| MUSE 415 | Instrumental Repertory                                   | 1 |
| MUSE 446 | Secondary School Music                                   | 3 |
| MUSE 455 | Teaching Reading in the Music Classroom                  | 3 |
- d. 4 hours in foundations, including:

|          |                                 |   |
|----------|---------------------------------|---|
| MUSE 194 | Introduction to Music Education | 1 |
| MUSE 357 | Foundations of Musical Behavior | 3 |
- e. 6 hours in student teaching, including:

|          |                                                                        |   |
|----------|------------------------------------------------------------------------|---|
| MUSE 400 | Student Teaching in the Elementary Schools (with grade of B or higher) | 3 |
| MUSE 461 | Student Teaching in the Secondary Schools (with grade of B or higher)  | 3 |

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**Subtotal for String Emphasis** **39**

**Subtotal for Wind, Percussion, Piano or Guitar Emphasis** **42**

**Total for String Emphasis** **137**

**Total for Wind, Percussion, Piano or Guitar Emphasis** **138**

## 2. Teaching Field: Music

- a. four semesters of MUS 101 *Concert Music* with a grade of CR;
- b. 7 hours of applied music in the principal instrument (voice, piano or guitar), including APMS 119, 120, 219, 220, 319, 320, 419 and 491;
- c. 18 hours in music theory, including MUS 150, 150L, 152, 152L, 250, 250L, 252, 252L and 453;
- d. 6 hours in music history (MUS 361 and 362)
- e. 2 hours in conducting (MUSE 363);
- f. 1 hour of improvisation (MUS 236);

[g.] MUS 214 *Piano Proficiency* with a grade of CR;

[h.] 2 hours vocal study, [including 1 hour in a major choral ensemble and 1 hour in either MUS 109 or APMS 119 (Voice) or a major choral ensemble.]

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**Subtotal** **[36]**

## 3. Professional Education: Music Education

- a. 7 hours in ensemble (see Ensemble Requirements for specific requirements)
- b. 8 hours in MUSE *Orchestral Instruments*
- c. [15 to 18] hours in music education methods, including:

|           |                                                          |    |
|-----------|----------------------------------------------------------|----|
| MUSE 195  | Introductory Teaching Practicum                          | 1  |
| [MUSE 216 | Music Education Lab (3 semesters with a grade of CR),]   |    |
| MUSE 315  | Instrumental Music Methods                               | 3  |
| MUSE 317  | Jazz Methods (not required for string emphasis)          | 1  |
| [MUSE 390 | Pre-Student Teaching Internship                          | 1] |
| MUSE 441  | Marching Band Methods (not required for string emphasis) | 2  |
| MUSE 346  | Teaching Music in the Elementary Schools                 | 3  |
| MUSE 415  | Instrumental Repertory                                   | 1  |
| MUSE 446  | Secondary School Music                                   | 3  |
| MUSE 455  | Teaching Reading in the Music Classroom                  | 3  |
- d. [7] hours in foundations, including:

|           |                                 |    |
|-----------|---------------------------------|----|
| MUSE 194  | Introduction to Music Education | 1  |
| MUSE 357  | Foundations of Musical Behavior | 3  |
| [MUSE 477 | Diversity in Music Education    | 3] |
- e. 6 hours in student teaching, including:

|          |                                                                        |   |
|----------|------------------------------------------------------------------------|---|
| MUSE 400 | Student Teaching in the Elementary Schools (with grade of B or higher) | 3 |
| MUSE 461 | Student Teaching in the Secondary Schools (with grade of B or higher)  | 3 |

---

**Subtotal for String Emphasis** **[43]**

**Subtotal for Wind, Percussion, Piano or Guitar Emphasis** **[46]**

**Total for String Emphasis** **[125]**

**Total for Wind, Percussion, Piano or Guitar Emphasis** **[126]**

**Supplement to Form C**  
**for**  
**Bachelor of Music Education, Instrumental Concentration**

Reasons for Request

In the preliminary description of the concentration, a note is being added to specify the requirement for piano or guitar emphasis students to have some proficiency in a secondary instrument. This language does not constitute a change to the degree, but is rather a clarification of the way the concentration currently works. As part of the existing requirements for the Instrumental Concentration, students must participate in major ensembles (orchestra or band). Since piano and guitar are not usual orchestral or band instruments, the student must therefore play an instrument that will qualify him or her for participation in these ensembles.

In section 1 “General Education,” the various changes for English, math, science, social and behavioral sciences, humanities and fine arts are being made because of changes in the university core and in requirements mandated for teacher certification by the New Mexico Public Education Department.

In Section 2 “Teaching Field: Music,” item g. (the ethnomusicology requirement) is being deleted, and will be replaced in Section 3d by a new course, MUSE 477 *Diversity in Music Education*. The content of MUSE 477 will include how to teach multicultural music in the classroom.

In Section 2 “Teaching Field: Music,” item i. will now appear as item h. and will allow a student to fulfill both of his or her required vocal study hours by participation in choir if desired. The current plan specifies that one of the hours must be in Group Voice class or Applied Voice (private lessons). The change will give the student greater flexibility in choosing courses to fulfill the degree requirements.

In Section 3 “Professional Education: Music Education,” in item c., the requirement for 2 semesters of MUSE 215 *Instrumental Lab* is being deleted and will be replaced by 3 semesters of a new course—MUSE 216 *Music Education Lab*. MUSE 216 will offer Music Education students more opportunities to teach prior to taking the formal Student Teaching courses (MUSE 400 and MUSE 461). It will replace the existing MUSE 213 *Choral Lab* and MUSE 215 *Instrumental Lab* in order to give students experience in more varied music teaching settings. Currently, students take either Instrumental Lab or Choral Lab depending upon their emphasis within the field; as a result, instrumental students never encounter the problems of teaching chorus and choral students never get introduced to instrumental ensemble teaching situations. Having a combined lab course will bring our program more in line with the scope of the New Mexico music teaching licensure, which is general rather than specific. Theoretically, a music teacher licensed in New Mexico is expected to possess competency in both instrumental and choral teaching. Although in practice, most teachers specialize in either band, orchestra, chorus or general music education, it is also becoming more a fact of life for principals to expect teachers to double in more than one area. Having a Music Education Lab that combines experience in all areas will greatly increase our students’ skill levels and their success rate in the field.

In Section 3 “Professional Education: Music Education,” in item c., a new course is being added: MUSE 390 *Pre-Student Teaching Internship*. This course will be for 1 hour credit and is designed to give Bachelor of Music Education majors more early field experience observing and working with K-12 students in music. It will also allow students a deeper experience in a specific area of interest within the field of music education (e.g., elementary general, middle school band, high school choral). The course will be taken before the student enrolls in MUSE 400 *Student Teaching in the Elementary School* and MUSE 461 *Student Teaching in the Secondary Schools*. The most important single component of a music education degree is supervised student teaching, which is customarily done as a capstone project. The more we can prepare our students in advance for this all-important immersion experience, the better they will be prepared as they enter their profession.

**Supplement to Form C**  
**for**  
**Bachelor of Music Education, Instrumental Concentration**

Justification, Planning, Budget, Faculty Workload

Justification for the Concentration:

N/A. This concentration already exists.

Impact on Long-Range Planning:

The reduction in core curriculum hours is significant and will bring us much closer to the kind of reduction in degree plan hours that is being pursued by the university. While we have not been able to reduce the requirements to 120 hours and maintain the desired quality of the degree program, we will now be much closer to that number and the changes will make the Bachelor of Music Education a much more attractive degree for students who are interested in teaching music as a career.

Budget Analysis and Faculty Workload Implications

There will be no impact on budget or faculty workloads. MUSE 216 will replace the current MUSE 215. The instruction of MUSE 390 will be shared by the music education area faculty. MUSE 477 will be taught as part of that faculty member's regular load. Please see the associated Forms B for clarification.

**Current user: cclark48 / Comments (9) / Form Transaction Log**  
**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C  
Form Number: C1801**

Fields marked with \* are required

Name of Initiator: Colleen Sheinberg Email: [colleens@unm.edu](mailto:colleens@unm.edu) Phone Number: 505 277-8401 Date: 11-01-2015

Associated Forms exist?\* Yes Initiator's Title\* Temp Parttime Faculty: Music

Faculty Contact\* Colleen Sheinberg

Administrative Contact\* Steven Block

Department\* Music

Admin Email\* [sblock@unm.edu](mailto:sblock@unm.edu)

Branch

Admin Phone\* 277-2126

Proposed effective term

Semester Fall Year 2016

**Course Information**

Select Appropriate Program\* Undergraduate Degree Program

Name of New or Existing Program\* Bachelor of Music Education, Vocal Concentration

Select Category\* Concentration Degree Type undergraduate

Select Action Revision

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[BME Voc-Sequence.pdf](#)[BME Voc-Form C-Cat Text Rev.pdf](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

See attached document.

[BME Voc-Reasons.pdf](#)**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[BME Voc-Impact.pdf](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[View Comments on this Form](#)  
[Comment on this Form](#) or [Review Forms](#)

Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001

# Supplement to Form C: Bachelor of Music Education, Vocal Concentration

## Current and Revised Catalog Text

[Current text]:

### Vocal Concentration

Includes emphases in piano, voice or guitar.

#### 1. General Education

- a. 12 hours of English, including 3 hours of English literature elective and the following courses:  
ENGL 101 Composition I: Exposition  
ENGL 102 Composition II: Analysis & Argument  
and one of the following:  
CJ 130 Public Speaking  
CJ 220 Communication for Teachers
- b. 6 hours of electives in mathematics, to be selected from the list of courses under College of Fine Arts Graduation Requirements and from  
MATH 111 *Mathematics for Elementary and Middle School Teachers*. NOTE: MATH 101, 102 and 103 cannot fulfill this requirement.
- c. 12 hours in science, including PHYC 108 *Introduction to Musical Acoustics*, PHYC 108L *Musical Acoustics Laboratory*, and 8 hours of electives, to be selected from the list of courses in Physical and Natural Sciences under College of Fine Arts Graduation Requirements
- d. 6 hours in Social and Behavioral Sciences, including PSY 105 *General Psychology* and PSY 220 *Developmental Psychology*
- e. 12 hours in general history, including:  
HIST 101 Western Civilization  
HIST 102 Western Civilization  
HIST 161L History of the United States to 1877  
HIST 162L History of the United States Since 1877
- f. 6 hours of electives in Fine Arts, to be selected from Art History, Art Studio, Theatre, Dance or Media Arts
- g. 3 hours in foreign language (see CFA Graduation Requirements)

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**Subtotal** **57**

#### 2. Teaching Field: Music

- a. four semesters of MUS 101 *Concert Music* with a grade of CR;
- b. 7 hours of applied music in the principal instrument (voice, piano or guitar), including APMS 119, 120, 219, 220, 319, 320, 419 and 491;
- c. 18 hours in music theory, including MUS 150, 150L, 152, 152L, 250, 250L, 252, 252L and 453;
- d. 6 hours in music history (MUS 361 and 362)
- e. 2 hours in conducting (MUSE 363);

[Revised text]:

### Vocal Concentration

Includes emphases in piano, voice or guitar.

#### 1. General Education

- [a. 9 hours of English, including the following:  
ENGL 110 (or ENGL 112 or ENGL 113);  
ENGL 120;  
one additional course chosen from ENGL 219,  
ENGL 220, CJ 130, PHIL 156, UHON 201
- b. 6 hours of electives in mathematics, including 3 hours of math elective and 3 hours to be selected from the list of courses under College of Fine Arts Graduation Requirements.
- c. 8 hours in science, including PHYC 108 *Introduction to Musical Acoustics*, PHYC 108L *Musical Acoustics Laboratory*, and 4 hours of electives to be selected from the list of courses in Physical and Natural Sciences under College of Fine Arts Graduation Requirements.
- d. 9 hours in Social and Behavioral Sciences, including PSY 105 *General Psychology* and EDPY 303 *Human Growth and Development* and 3 hours of electives to be selected from the list of courses in Social and Behavioral Sciences under College of Fine Arts Graduation Requirements
- e. 6 hours of electives in humanities, to be selected from the list of courses in Humanities under College of Fine Arts Graduation Requirements
- f. 3 hours of electives in Fine Arts, to be selected from Art History, Art Studio, Theatre, Dance or Media Arts;]
- g. 3 hours in foreign language (see CFA Graduation Requirements)

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**Subtotal** **[44]**

#### 2. Teaching Field: Music

- a. four semesters of MUS 101 *Concert Music* with a grade of CR;
- b. 7 hours of applied music in the principal instrument (voice, piano or guitar), including APMS 119, 120, 219, 220, 319, 320, 419 and 491;
- c. 18 hours in music theory, including MUS 150, 150L, 152, 152L, 250, 250L, 252, 252L and 453;
- d. 6 hours in music history (MUS 361 and 362)
- e. 2 hours in conducting (MUSE 363);

- f. 1 hour of improvisation (MUS 236);
- g. 3 hours selected from any courses listed under Ethnomusicology, or MUSE 293;
- h. 2 to 4 hours in applied music in secondary instruments, as follows:  
Piano Emphasis: 2 hrs of 119 & 120 in voice  
Vocal Emphasis: 2 hrs of 119 & 120 in piano  
Guitar Emphasis: 2 hrs of 119 & 120 in voice and 2 hrs of 119 & 120 in piano;
- i. MUS 214 *Piano Proficiency* with a grade of CR;
- j. 4 hours of Diction for Singers (MUS 209 & 210).

---

|                                             |           |
|---------------------------------------------|-----------|
| <b>Subtotal for Piano or Vocal Emphasis</b> | <b>43</b> |
| <b>Subtotal for Guitar Emphasis</b>         | <b>45</b> |

### 3. Professional Education: Music Education

- a. 7 hours in ensemble, specifically either MUSE 242 *Dolce Suono* or MUSE 243 *Concert Choir* (see Ensemble Requirements);
- b. 4 to 5 hours in MUSE *Orchestral Instruments*, as follows:  
Piano and Vocal Emphasis: 5 hours, including guitar and four selected from brass, woodwinds or strings  
Guitar Emphasis: 4 hours, selected from brass, woodwinds or strings
- c. 16 hours in music education methods, including:
 

|          |                                                 |   |
|----------|-------------------------------------------------|---|
| MUSE 195 | Introductory Teaching Practicum                 | 1 |
| MUSE 213 | Choral Lab (2 semesters with a grade of CR),    |   |
| MUSE 313 | Choral Music Methods                            | 3 |
| MUSE 346 | Teaching Music in the Elementary Schools        | 3 |
| MUSE 347 | Introduction to Early Childhood Music Education | 1 |
| MUS 388  | Music Pedagogy (in vocal pedagogy)              | 2 |
| MUSE 446 | Secondary School Music                          | 3 |
| MUSE 455 | Teaching Reading in the Music Classroom         | 3 |
- d. 4 hours in foundations, including:
 

|          |                                 |   |
|----------|---------------------------------|---|
| MUSE 194 | Introduction to Music Education | 1 |
| MUSE 357 | Foundations of Musical Behavior | 3 |
- e. 6 hours in student teaching, including:
 

|          |                                                                        |   |
|----------|------------------------------------------------------------------------|---|
| MUSE 400 | Student Teaching in the Elementary Schools (with grade of B or higher) | 3 |
| MUSE 461 | Student Teaching in the Secondary Schools (with grade of B or higher)  | 3 |

---

|                                             |           |
|---------------------------------------------|-----------|
| <b>Subtotal for Piano or Vocal Emphasis</b> | <b>38</b> |
| <b>Subtotal for Guitar Emphasis</b>         | <b>37</b> |

|                                          |            |
|------------------------------------------|------------|
| <b>Total for Piano or Vocal Emphasis</b> | <b>138</b> |
| <b>Total for Guitar Emphasis</b>         | <b>139</b> |

- f. 1 hour of improvisation (MUS 236);

- [g.] 2 to 4 hours in applied music in secondary instruments, as follows:  
Piano Emphasis: 2 hrs of 119 & 120 in voice  
Vocal Emphasis: 2 hrs of 119 & 120 in piano  
Guitar Emphasis: 2 hrs of 119 & 120 in voice and 2 hrs of 119 & 120 in piano;

- [h.] MUS 214 *Piano Proficiency* with a grade of CR;

- [i.] 4 hours of Diction for Singers (MUS 209 & 210).

---

|                                             |             |
|---------------------------------------------|-------------|
| <b>Subtotal for Piano or Vocal Emphasis</b> | <b>[40]</b> |
| <b>Subtotal for Guitar Emphasis</b>         | <b>[42]</b> |

### 3. Professional Education: Music Education

- a. 7 hours in ensemble, specifically either MUSE 242 *Dolce Suono* or MUSE 243 *Concert Choir* (see Ensemble Requirements);
- b. 4 to 5 hours in MUSE *Orchestral Instruments*, as follows:  
Piano and Vocal Emphasis: 5 hours, including guitar and four selected from brass, woodwinds or strings  
Guitar Emphasis: 4 hours, selected from brass, woodwinds or strings
- c. [17] hours in music education methods, including:
 

|           |                                                       |    |
|-----------|-------------------------------------------------------|----|
| MUSE 195  | Introductory Teaching Practicum                       | 1  |
| [MUSE 216 | Music Education Lab (3 semesters with a grade of CR), | 0] |
| MUSE 313  | Choral Music Methods                                  | 3  |
| MUSE 346  | Teaching Music in the Elementary Schools              | 3  |
| MUSE 347  | Introduction to Early Childhood Music Education       | 1  |
| MUS 388   | Music Pedagogy (in vocal pedagogy)                    | 2  |
| [MUSE 390 | Pre-Student Teaching Internship                       | 1] |
| MUSE 446  | Secondary School Music                                | 3  |
| MUSE 455  | Teaching Reading in the Music Classroom               | 3  |
- d. [7] hours in foundations, including:
 

|           |                                 |    |
|-----------|---------------------------------|----|
| MUSE 194  | Introduction to Music Education | 1  |
| MUSE 357  | Foundations of Musical Behavior | 3  |
| [MUSE 477 | Diversity in Music Education    | 3] |
- e. 6 hours in student teaching, including:
 

|          |                                                                        |   |
|----------|------------------------------------------------------------------------|---|
| MUSE 400 | Student Teaching in the Elementary Schools (with grade of B or higher) | 3 |
| MUSE 461 | Student Teaching in the Secondary Schools (with grade of B or higher)  | 3 |

---

|                                             |             |
|---------------------------------------------|-------------|
| <b>Subtotal for Piano or Vocal Emphasis</b> | <b>[42]</b> |
| <b>Subtotal for Guitar Emphasis</b>         | <b>[41]</b> |

|                                          |              |
|------------------------------------------|--------------|
| <b>Total for Piano or Vocal Emphasis</b> | <b>[126]</b> |
| <b>Total for Guitar Emphasis</b>         | <b>[127]</b> |



**Supplement to Form C**  
**for**  
**Bachelor of Music Education, Vocal Concentration**

Reasons for Request

In section 1 “General Education,” the various changes for English, math, science, social and behavioral sciences, humanities and fine arts are being made because of changes in the university core and in requirements mandated for teacher certification by the New Mexico Public Education Department.

In Section 2 “Teaching Field: Music,” item g. (the ethnomusicology requirement) is being deleted, and will be replaced in Section 3d. by a new course, MUSE 477 *Diversity in Music Education*. The content of MUSE 477 will include how to teach multicultural music in the classroom.

In Section 3 “Professional Education: Music Education,” in item c., the requirement for 2 semesters of MUSE 213 *Choral Lab* is being deleted and will be replaced by 3 semesters of a new course—MUSE 216 *Music Education Lab*. MUSE 216 will offer Music Education students more opportunities to teach prior to taking the formal Student Teaching courses (MUSE 400 and MUSE 461). It will replace the existing MUSE 213 *Choral Lab* and MUSE 215 *Instrumental Lab* in order to give students experience in more varied music teaching settings. Currently, students take either Instrumental Lab or Choral Lab depending upon their emphasis within the field; as a result, instrumental students never encounter the problems of teaching chorus and choral students never get introduced to instrumental ensemble teaching situations. Having a combined lab course will bring our program more in line with the scope of the New Mexico music teaching licensure, which is general rather than specific. Theoretically, a music teacher licensed in New Mexico is expected to possess competency in both instrumental and choral teaching. Although in practice, most teachers specialize in either band, orchestra, chorus or general music education, it is also becoming more a fact of life for principals to expect teachers to double in more than one area. Having a Music Education Lab that combines experience in all areas will greatly increase our students’ skill levels and their success rate in the field.

In Section 3 “Professional Education: Music Education,” in item c., a new course is being added: MUSE 390 *Pre-Student Teaching Internship*. This course will be for 1 hour credit and is designed to give Bachelor of Music Education majors more early field experience observing and working with K-12 students in music. It will also allow students a deeper experience in a specific area of interest within the field of music education (e.g., elementary general, middle school band, high school choral). The course will be taken before the student enrolls in MUSE 400 *Student Teaching in the Elementary School* and MUSE 461 *Student Teaching in the Secondary Schools*. The most important single component of a music education degree is supervised student teaching, which is customarily done as a capstone project. The more we can prepare our students in advance for this all-important immersion experience, the better they will be prepared as they enter their profession.

**Supplement to Form C**  
**for**  
**Bachelor of Music Education, Vocal Concentration**

Justification, Planning, Budget, Faculty Workload

Justification for the Concentration:

N/A. This concentration already exists.

Impact on Long-Range Planning:

The reduction in core curriculum hours is significant and will bring us much closer to the kind of reduction in degree plan hours that is being pursued by the university. While we have not been able to reduce the requirements to 120 hours and maintain the desired quality of the degree program, we will now be much closer to that number and the changes will make the Bachelor of Music Education a much more attractive degree for students who are interested in teaching music as a career.

Budget Analysis and Faculty Workload Implications

There will be no impact on budget or faculty workloads. MUSE 216 will replace the current MUSE 213. The instruction of MUSE 390 will be shared by the music education area faculty. MUSE 477 will be taught as part of that faculty member's regular load. Please see the associated Forms B for clarification.

**Current user: cclark48 / Comments (9) / Form Transaction Log**  
**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1811

Fields marked with \* are required

Name of Initiator: Heather Canavan Email: [canavan@unm.edu](mailto:canavan@unm.edu) Phone Number: 505 277-8026 Date: 11-02-2015

Associated Forms exist?\* No

Initiator's Title\* Associate Professor: Chem Biol Engineering

Faculty Contact\* Heather Canavan

Administrative Contact\* Annette Torres

Department\* Biomedical Engineering Graduate Program

Admin Email\* [anntorr@unm.edu](mailto:anntorr@unm.edu)

Branch

Admin Phone\* (505) 277-7959

Proposed effective term

Semester Fall Year 2016

## Course Information

Select Appropriate Program\* Graduate Degree Program

Name of New or Existing Program\* MS Biomedical Engineering

Select Category \* Major Degree Type MS

Select Action Revision

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[Exact Title and Requirements BME Nov2015.docx](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

The BME Graduate Program is requesting approval of a new Plan III (coursework-only) MS.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[Justification BME Nov2015.docx](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[View Comments on this Form](#)  
[Comment on this Form](#) or [Review Forms](#)

Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, NM 87131-0001

Degree/Program Change  
Form C  
Form Number CO

Form initiated by Prof. Heather Canavan

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.**

See current catalog for format within the respective college (upload a doc/pdf file)

Changes to the Catalog's entry:

**Biomedical Engineering Graduate Program**

Heather E. Canavan, Director  
Centennial Engineering Center 2059  
MSC01 1141  
1 University of New Mexico  
Albuquerque, NM 87131-0001  
(505) 277-8026

**Affiliated Faculty**

Kateryna Artyushkova, Chemical and Biological Engineering  
Plamen Atanassov, Chemical and Biological Engineering  
C. Jeffrey Brinker, Chemical and Biological Engineering  
Vince Calhoun, Electrical and Computer Engineering  
Heather Canavan, Chemical and Biological Engineering  
Thomas Caudell, Electrical and Computer Engineering  
Eva Chi, Chemical and Biological Engineering  
Vittorio Cristini, Pathology  
Elizabeth L. Dirk, Chemical and Biological Engineering  
Jeremy Edwards, Chemistry, and Chemical and Biological Engineering  
James P. Freyer, Chemical and Biological Engineering  
Julia Fulghum, Chemical and Biological Engineering  
Steven W. Graves, Chemical and Biological Engineering  
David Grow, Mechanical Engineering, New Mexico Institute of Mining and Technology  
Sang Han, Chemical and Biological Engineering  
Kerry Howe, Civil Engineering  
Linnea Ista, Chemical and Biological Engineering  
Ravi Jain, Electrical Engineering  
Zayd C. Leseman, Mechanical Engineering, and Electrical and Computer Engineering  
Gabriel P. Lopez, Biomedical Engineering, Duke University  
Chad Melancon, Chemistry  
Diana Mercer, Orthopaedics  
Meeko Oishi, Electrical and Computer Engineering  
Marek Osinski, Electrical and Computer Engineering  
Marios Pattichis, Electrical and Computer Engineering  
Dimitar Petsev, Chemical and Biological Engineering  
Christina Salas, Orthopaedics  
Andrew Schuler, Civil Engineering  
Andrew Shreve, Chemical and Biological Engineering  
Scott S. Sibbett, Chemical and Biological Engineering  
Darko Stefanovic, Computer Science  
Mahmoud Reda Taha, Civil Engineering  
Michaelann Tartis, Chemical Engineering, New Mexico Institute of Mining and Technology  
Margaret Werner-Washburne, Biology  
David Whitten, Chemical and Biological Engineering  
John E. Wood, Mechanical Engineering  
Steve A. Young, Pathology

**Biomedical Engineering Concentration for the Ph.D. in Engineering**

## **M.S. and Ph.D. Admission Requirements**

Prospective candidates can apply directly for admission to the Ph.D. program. The Admissions Committee will make admission decisions on a case-by-case basis.

### **Degree Completion Requirements**

The general requirements for this degree are identical to those specified in the Graduate Program section of this catalog. (Please see the [Graduate Program](#) section for detailed requirements and procedures common to all UNM graduate programs.) In addition to the general requirement specified in the Graduate Program, graduates must complete the core and elective BME curriculum specified below.

---

### **Degrees Offered**

M.S. in Biomedical Engineering

Ph.D. in Engineering with a Concentration in Biomedical Engineering

### **Ph.D. and M.S. in Biomedical Engineering**

The M.S. and Ph.D. programs in Biomedical Engineering prepare students for careers in solving engineering problems in health care, biomedical research, and biotechnology. Areas of current faculty research include biomaterials, nanobiotechnology, bioanalytical microsystems, patient-care devices, tissue engineering, flow cytometry, disease processes, clinical translation, and molecular and cellular systems. Instruction includes 5 core courses, a seminar and numerous electives taught by Affiliated Faculty and others within the School of Engineering, School of Medicine, College of Arts and Sciences, and College of Pharmacy.

### **Ph.D. and M.S. Admission Requirements**

Prospective candidates may apply directly for admission to the Ph.D. program. Successful applicants to the program usually have a bachelor's degree in the physical sciences or engineering. The Admissions Committee makes admissions decisions on a case-by-case basis, with special consideration of scholastic proficiency in one or more of the following subject areas:

- Molecular and Cellular Biology
- Chemistry and Organic Chemistry
- Calculus and Ordinary Differential Equations
- Thermodynamics
- Physics
- Biochemistry or Biomolecular Engineering

Students who have not passed courses in one or more of these subject areas may be admitted to the program, but required to take undergraduate courses to address deficiencies in their background. General admission requirements described in the Graduate Program in the Catalog also apply.

### **Ph.D. and M.S. Application Process**

Details of applying to the Ph.D. and M.S. programs are found on-line at <http://bme.unm.edu>. Applications to the degree program are submitted electronically at [www.unm.edu/apply](http://www.unm.edu/apply).

### **Ph.D. Degree Completion Requirements**

The general requirements for the Ph.D. degree include those specified in the Graduate Program section of this catalog. In addition to these general requirements, students must also complete the BME core, Emphasis Area core, and elective BME curricula described below. BME 567 (Biomedical Engineering Seminar) must be taken every semester, up to a maximum of 8 credit hours total. Students must pass the Qualifying Examination before applying for Candidacy or proceeding to the Comprehensive Exam. Upon successfully passing the Doctoral Comprehensive Exam and successful review of their application by program faculty and the Dean of Graduate Studies, students are admitted to Candidacy for the doctoral degree. For successful completion of the program requirements, all candidates must pass a Final Examination (Defense of Dissertation).

### **M.S. Degree Completion Requirements**

#### **Completion requirements of a thesis-based M.S. degree (Plan I)**

The minimum requirements for the thesis-based M.S. include 6 hours of thesis credit (BME 599) and 24 hours of course work that must include 18 hours of mandatory courses, as approved by the Committee on Studies, and at least 3 hours from the electives such as those listed below. Plan I automatically meets the requirement of at least 12 hours of course work at the 500 level or higher, exclusive of thesis credit, as stipulated by the UNM Catalog for this plan.

**Completion requirements of a course-based M.S. degree (Plan II)**

The minimum requirements of the Plan II Course-Based M.S. degree program include 32 hours of course work for credit, with at least 24 hours drawn from the list of BME required and elective courses and 3 hours of research seminar/problems course. At most, 6 hours of \*400 level School of Engineering courses are allowed. Also, at least 12 hours of course work should be at a 500 level or higher, as stipulated by the Catalog for this Plan. A final exit exam is required by this degree plan, with a committee of similar makeup to those of the Plan I MS.

**Completion requirements of a coursework-only M.S. degree (Plan III)**

The minimum requirements of the Plan II Course-Based M.S. degree program include 30 hours of course work for credit, with at least 24 hours drawn from the list of BME required and elective courses. At most, 6 hours of \*400 level School of Engineering courses are allowed. Also, at least 12 hours of course work should be at a 500 level or higher, as stipulated by the Catalog for this Plan. Seminar, thesis, and independent study (i.e., "Problems") courses are not required by this degree plan, nor is a final exit exam.

---

**Curriculum for Students Pursuing the BME Concentration for the Ph.D. in Engineering**

For all students pursuing degrees in BME, the following BME core courses are offered once per academic year:

|         |                                           |
|---------|-------------------------------------------|
| BME 547 | Biomedical Engineering Research Practices |
| BME 558 | Methods of Analysis in Bioengineering     |
| BME 567 | Biomedical Engineering Seminar            |

For students pursuing degrees in the emphasis area of Molecular and Cellular Systems, the following Emphasis Area Core courses are offered every other year:

|         |                                                               |
|---------|---------------------------------------------------------------|
| BME 517 | Applied Biology for Biomedical Engineers                      |
| BME 544 | Mechanics and Thermodynamics of Molecular Components in Cells |
| BME 556 | Protein and Nucleic Acid Engineering                          |

For students pursuing degrees in the emphasis area of Biomaterials, Biomechanics and Tissue Engineering, the following Emphasis Area Core courses are offered every other year:

|         |                          |
|---------|--------------------------|
| BME 572 | Biomaterials Engineering |
| BME 579 | Tissue Engineering       |
| BME 575 | Biomechanics             |

Equivalent graduate-level courses taken at other institutions may be used to satisfy one or more of the above core requirements, as approved by the student's Graduate Advisor or Curriculum Committee.

**Elective Courses**

For completion of the Ph.D. degree, the student must complete a minimum of 18 credit hours of elective courses from the list below. At least 9 of these must be from courses offered in the School of Engineering. Ph.D. candidates may substitute electives other than those listed below, as approved by the student's Graduate Advisor or Curriculum Committee.

M.S. degree candidates must complete a minimum of 6 credit hours of elective courses from the lists below. M.S. candidates may substitute electives other than those listed below, as approved by the student's Graduate Advisor or Curriculum Committee.

| Biomedical Engineering Electives |                                                               |
|----------------------------------|---------------------------------------------------------------|
| BME 517                          | Applied Biology for Biomedical Engineers                      |
| BME 544                          | Mechanics and Thermodynamics of Molecular Components in Cells |
| BME 556                          | Protein and Nucleic Acid Engineering                          |
| BME 570                          | Physical Bioanalytical Methods                                |
| BME 572                          | Biomaterials Engineering                                      |
| BME 579                          | Tissue Engineering                                            |
| BME 575                          | Biomechanics                                                  |
| BME 598                          | Special Topics                                                |

| Engineering Electives |                                           |
|-----------------------|-------------------------------------------|
| BIOL **351            | General Microbiology                      |
| BIOL 547              | Advanced Techniques in Light Microscopy   |
| BIOM 507/BIOL 581     | Advanced Molecular Biology                |
| BIOM 508/BIOL 582     | Advanced Cell Biology                     |
| BIOM 509              | Principles of Neurobiology                |
| BIOM 510              | Physiology                                |
| BIOM 514              | Immunobiology                             |
| BIOM 515              | Cancer Biology                            |
| BIOM 516              | Molecular Genetics and Genomics           |
| CHNE/NSMS 522L        | Fundamentals of Nanofluidics              |
| CHNE/NSMS 530         | Surface and Interfacial Phenomena         |
| CHNE/NSMS 538/438     | Biosensors Fundamentals and Applications  |
| CHNE 504              | Nanomaterials                             |
| CHNE 521              | Advanced Transport Phenomena I            |
| CS 529                | Introduction to Machine Learning          |
| CS 530                | Geometric and Probabilistic Methods in CS |
| CS 561                | Algorithms and Data Structures            |
| CS 590                | Topics: Complex Adaptive Systems          |
| ECE 500               | Theory of Linear Systems                  |
| ECE 510               | Medical Imaging                           |
| ECE 533               | Digital Image Processing                  |
| ECE 537               | Foundations of Computing                  |
| ECE 539               | Digital Signal Processing I               |

|        |                                     |
|--------|-------------------------------------|
| ME 501 | Advanced Mechanics of Materials     |
| ME 504 | Computational Mechanics             |
| ME 512 | Introduction to Continuum Mechanics |
| ME 530 | Theoretical Fluid Mechanics I       |
| ME 571 | Advanced Materials Science          |



Degree/Program Change  
Form C  
Form Number CO

Form initiated by Prof. Heather Canavan

Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*

**Justification for the Change to the Program.** The BME Graduate Program is an interdisciplinary degree program, housed within the School of Engineering rather than a single department. From its inception, the degree program was intended to have multiple emphasis areas that tailored the educational needs of students within the program, as well as the faculty participating in it. The addition of the Plan III MS will allow our faculty to streamline our degree path (and therefore faculty workload) for students enrolled in the SOE Shared Credit Program (see Faculty Workload, below). It also leaves room in case the faculty in the program decide to create an online-only degree program (see Impact on Long-range Planning, below).

The Plan III MS was proposed, discussed, voted on, and unanimously approved by the participating BME faculty on September 23, 2015. It was presented to the Department of Chemical & Biological Engineering (home department of the majority of BME faculty) on September 28, 2015, where it was again unanimously approved. Prof. Canavan indicated the program's intention to pursue the Plan III MS to Associate Dean Fleddermann at the SOE Academic Council in October 2015.

**Impact on Long-range Planning.** Inclusion of the Plan III MS opens up the option of a potential online-only MS program, which could be used to recruit students from around our state. It will position our program to recruit blue chip students from places like Los Alamos National Laboratory to the program, enhancing our program's reputation within the University and State. Furthermore, the increasingly vibrant educational and research environment will help the School of Engineering to recruit new faculty members to our six departments.

**Detailed budget analysis.** The BME graduate program is an interdisciplinary program housed within the School of Engineering, and does not have its own budget. Furthermore, the addition of the Plan III MS is not expected to impact the BME program's budget in any way.

**Faculty workload implications.** The addition of this emphasis area will reduce faculty workload. The Plan III MS is envisioned by our graduate program to be optimal for i) students who enroll in the SOE Shared Credit program (combined BS in Chemical Engineering or other undergraduate programs in SOE → MS in Biomedical Engineering); or ii) in case of a future online-only degree in BME. In either of these cases, the Plan III MS will eliminate the need for an MS exit exam with committee. At present, there are 6 students enrolled in the Shared Credit program. Eliminating exit exam committees will

therefore reduce the workload of 18 faculty by 2 hours, or 36 person hours next semester. As the program grows in popularity, the savings in faculty hours will also increase.

**Impact on Other Departmental Programs.** The impact on other BME programs will have a positive impact on our other departmental programs. We believe that the number of MS degrees awarded by our program will increase with the addition of this streamlined Plan III MS, for two reasons:

- *current* students pursuing the PhD in BME will be able to apply for the MS at the conclusion of their coursework (at the Qualifying Exam stage, rather than the Comprehensive Exam stage). By disengaging the MS from the Comprehensive Exam, students will understand that the degree is truly a “coursework only” MS, without the need for a stressful oral exit exam.
- *new* students looking for an advanced degree for promotion purposes (e.g., from the US Air Force, Sandia and Los Alamos National Laboratories), will see this option as more attractive to one that requires an independent study (“Problems” course) such as is currently required by our Plan II MS, or research with faculty (“Thesis” credits) such as is required by our Plan I MS.

Current user: cclark48 / **Comments (8)** / Form Transaction Log  
**Curriculum Workflow**



[Link to Curricula Forms Process Manual](#)

**DEGREE/PROGRAM CHANGE  
FORM C**  
Form Number: C1813



Fields marked with \* are required

Name of Initiator: Tariq Khraishi Email: [khraishi@unm.edu](mailto:khraishi@unm.edu) Phone Number: 505 277-6803 Date: 11-03-2015

Associated Forms exist?\*  Initiator's Title\* Professor: SOE Mechanical Engineering

Faculty Contact\* Professor/Chair Chris Hall

Administrative Contact\* Anna Mae Apodaca

Department\* Mechanical Engineering Dept

Admin Email\* [aapodaca@unm.edu](mailto:aapodaca@unm.edu)

Branch

Admin Phone\* (505) 277- 2762

Proposed effective term

Semester  Year

**Course Information**

Select Appropriate Program\*

Name of New or Existing Program\* BSME Mechanical Engineering

Select Category \*  Degree Type BS

Select Action

**Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[Policy\\_on\\_C-\\_grades\\_or\\_lower\\_submitted\\_to\\_UNM\\_Work\\_Flow.pdf](#)

☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.

**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

The ME department faculty have decided to only accept a C or higher grade for courses counted towards the BSME (Bachelor of Science in Mechanical Engineering). The submitted request herein reflects this decision.

**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)

☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.

**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)

**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)

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[Comment on this Form](#) or [Review Forms](#)



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Existing language on: <http://catalog.unm.edu/catalogs/2015-2016/colleges/engineering/mechanical/undergraduate-program.html>

“

**Policy on "D" or "D+" Grades**

Students admitted or readmitted to the Mechanical Engineering degree program may not apply a course toward the B.S.M.E. degree if the highest grade earned in the course is a grade of "D+" or less, regardless of where that grade was earned.

”

Please change the above to be:

“

**Policy on "C-" Grades**

Students admitted or readmitted to the Mechanical Engineering degree program may not apply a course toward the B.S.M.E. degree if the highest grade earned in the course is a grade of "C-" or less, regardless of where that grade was earned.

”

**Current user: cclark48 / Comments (8) / Form Transaction Log**  
**Curriculum Workflow**[Link to Curricula Forms Process Manual](#)**DEGREE/PROGRAM CHANGE  
FORM C  
Form Number: C1824**

Fields marked with \* are required

Name of Initiator: Ziarat Hossain Email: [zhossain@unm.edu](mailto:zhossain@unm.edu) Phone Number: 505 277-4162 Date: 01-14-2016Associated Forms exist?\*  Initiator's Title\* Professor: Individual Family Comm Educ I

Faculty Contact\* Zia Hossain

Administrative Contact\* Cynthia Salas

Department\* Family Studies, IFCE

Admin Email\* [casalas@unm.edu](mailto:casalas@unm.edu)

Branch

Admin Phone\* 505-277-4318

Proposed effective term

Semester  Year **Course Information**Select Appropriate Program\* 

Name of New or Existing Program\* Family and Child Studies (FCS) Subject Code

Select Category\*  Degree Type B.S.Select Action **Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.\***

See current catalog for format within the respective college (upload a doc/pdf file)

[FS to FCS code.docx](#)☐ Does this change affect other departmental program/branch campuses? If yes, indicate below.**Reason(s) for Request\*** (enter text below or upload a doc/pdf file)

The merger between FS and ECME Programs will be reflected under a new subject code: FCS - Family and Child Studies (see attached for details)

[FS to FCS code - Reason.docx](#)**Upload a document that includes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.\*** (upload a doc/pdf file)[FCS Undergraduate Executive Summary.docx](#)☐ Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**Upload a two-page Executive Summary authorized by Associate Provost.\*** (upload a doc/pdf file)**Upload memo from Associate Provost authorizing go-ahead to full proposal.\*** (upload a doc/pdf file)[View Comments on this Form](#)  
[Comment on this Form](#) or [Review Forms](#)

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## Reasons for Change of Subject Code

### FS to FCS Subject Code ECME to FCS Subject Code

FS and ECME faculty have shared academic interests that focus on families, children, and communities. The complementarity of such interests and expertise will be significantly enhanced by the proposed merger. In addition, the merger will help us pool resources to effectively address both faculty and student involvement in academic processes and products. We envision that such a consolidation will improve the quality of our teaching, research, advisement, and other professional contributions and services. As a key corollary, students will be a part of a vibrant, innovative program and will experience a well-supported academic and learning environment.

As already indicated, the Form C to revise the existing Family Studies Bachelor of Science degree is part of a deliberative process to merge two existing programs, Early Childhood Multicultural Education and Family Studies, in the Department of Individual, Family, and Community Education in the College of Education. As part of this process, the existing ECME Bachelor of Science degree and the existing HDFR Bachelor of Science degrees will be deleted. As a result, the **revised major is named as Family and Child Studies (FCS)**. Minors in the Family Studies and Human Development and Family Relations will also be deleted, resulting in a **revised minor in Family and Child Studies (FCS)**. Another Form C has included three concentrations (Human Development and Family Relations – HDFR, Early Childhood Education and Development – ECED, and Early Childhood Multicultural Education Licensure - ECME, Pre-K to Grade 3) that effectively revise and more efficiently organize existing programs of study in three separate Bachelor degree pathways (ECME, FS, & HDFR). Overall, the revision of the existing FS Program and the merger between FS and ECME have resulted the new/revised subject code – FCS (Family and Child Studies). It may be important to note that if all gets approved, the University of New Mexico will offer a state of the art, high-quality, and rigorous undergraduate degree program for individuals seeking license for Pre-K to Grade 3 that includes deep knowledge in early childhood education, child development, and family well-being.

## EXECUTIVE SUMMARY

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### Revision of the Family Studies (FS) and the Early Childhood and Multicultural Education (ECME) Programs

&

### Proposed Family & Child Studies (FCS) Program

### Merger & Changes in the Undergraduate FS and ECME,

Department of Individual, Family & Community Education

College of Education

University of New Mexico

## Summary of the Revision and Merger

| Existing Programs                                     | Proposed (Effective Fall 2016)                                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| B. S. in FS<br>(128 credits)                          | Revise to B. S. in FCS with 3 concentrations: <ul style="list-style-type: none"> <li>- Human Development and Family Relations (120 credits)</li> <li>- Early Childhood Education &amp; Development (120 credits)</li> <li>- Early Childhood Multicultural Education Licensure, Pre-K to Grade 3 (121 credits)</li> </ul> |
| B. S. in Human Development and Family Relation (HDFR) | Delete                                                                                                                                                                                                                                                                                                                   |
| B. S. in ECME                                         | Delete                                                                                                                                                                                                                                                                                                                   |
| B. A. in FS (A&S students)                            | B. A. in FCS (A&S students)                                                                                                                                                                                                                                                                                              |
| Minor in FS (21 credits)                              | Revise to minor in FCS (18 credits)                                                                                                                                                                                                                                                                                      |
| Minor in HDFR                                         | Delete                                                                                                                                                                                                                                                                                                                   |

## **Vision of the Family & Child Studies Program**

*Enhancing the lives of children and families through inter-related theory, research, and practice that address the diverse and complex nature of their futures.*

## **Mission of the Family & Child Studies Program**

*Our mission is to foster an interdisciplinary scholarly environment that enables early childhood professionals, family service providers, and researchers in the field of family and child study to*

- *cultivate and disseminate systematic information and grounded knowledge about the diverse nature of families in contemporary societies*
- *understand and critically respond to the dynamic complexities of human development across the lifespan*
- *foster leadership in addressing the multiple facets of early childhood development*

## **Introduction**

The Family & Child Studies Program (FCS) is targeted to begin Fall 2016 as the culmination of an intensive, 4-year review and revision of two existing programs in the Department of Individual, Family and Community Education (IFCE). These programs are:

Family Studies (FS); and

Early Childhood Multicultural Education (ECME)

The establishment of the FCS Program will also involve eliminating another degree program (Human Development and Family Relations – HDFR) that currently exists under the FS Program.

Family Studies currently offers Bachelor's, Master's and Doctoral degrees, and both the HDFR and ECME Programs offer the Bachelor of Science degree. The reimagination and consolidation of these degree programs are the basis for the comprehensive revision of the degree requirements for the proposed FCS degree offerings. More generally, the proposed FCS program is grounded in a firm commitment to (a) emphasize research productivity on the part of its faculty and both undergraduate and graduate students, (b) strengthen its academic offerings at all degree levels, and (c) provide excellent mentoring of its graduate and doctoral students aimed at developing leaders and quality researchers in the field.

As noted above, the proposed FCS program is the outcome of a comprehensive review of the Family Studies, Human Development and Family Relations, and Early Childhood Multicultural Education programs at the Bachelor level, and the Family Studies program at the Master and Doctoral levels. The proposed changes are therefore not aimed at creating any new degree programs but, rather, revisions of the existing Bachelor of Science, Bachelor of Arts, Master of Arts and Doctor of Philosophy degrees in Family Studies. In line with the proposed merger, a



Form C will be submitted to delete both the ECME and HDFR Bachelor of Science degrees. The revision of the FS – B.S. degree to the FCS – B.S. degree will result in three concentrations as follows:

- a) Human Development and Family Relations (HDFR – 120 credits)
- b) Early Childhood Education and Development (ECED – 120 credits)
- c) Early Childhood Multicultural Education Licensure (ECMEL – 121 credits), Pre-K to Grade 3

The changes will result in a revised subject code (FCS) for all courses offered in the merged program and the FS and ECME subject code will expire for courses offered on main campus.

### **Reasons for Request**

FS and ECME faculty have shared academic interests that focus on families, children, and communities. The complementarity of such interests and expertise will be significantly enhanced by the proposed merger. In addition, the merger will help us pool resources to effectively address both faculty and student involvement in academic processes and products. We envision that such a consolidation will improve the quality of our teaching, research, advisement, and other professional contributions and services. As a key corollary, students will be a part of a vibrant, innovative program and will experience a well-supported academic and learning environment.

As already indicated, the Form C to revise the existing Family Studies Bachelor of Science degree is part of a deliberative process to merge two existing programs, Early Childhood Multicultural Education and Family Studies, in the Department of Individual, Family, and Community Education in the College of Education. As part of this process, the existing ECME Bachelor of Science degree and the existing HDFR Bachelor of Science degrees will be deleted. Minors in the Family Studies and Human Development and Family Relations will also be deleted, resulting in a revised minor in Family and Child Studies (FCS). The current Form C will include three concentrations (Human Development and Family Relations – HDFR, Early Childhood Education and Development – ECED, and Early Childhood Multicultural Education Licensure - ECMEL, Pre-K to Grade 3) that effectively revise and more efficiently organize existing programs of study in three separate Bachelor degree pathways (ECME, FS, & HDFR). It may be important to note that if all gets approved, the University of New Mexico will offer a state of the art, high-quality, and rigorous undergraduate degree program for individuals seeking license for Pre-K to Grade 3 that includes deep knowledge in early childhood education, child development, and family well-being.

### **Justification of the Merged FCS Program**

The Early Childhood Multicultural Education Program and the Family Studies Program faculty believe that the proposed merger is an appropriate evolution of programs that have been closely linked since the creation of the ECME program at UNM following the adoption of the Birth to Grade Three Teaching License by the then New Mexico State Board of Education in 1993. Three UNM faculty members from Family Studies were part of the original group that developed the licensure competencies and developed the proposal for the new ECME degree program at UNM. That program began admitting students in 1996. From 1996 to 1999 Family Studies faculty taught courses in ECME; since 1999, at least three Family Studies courses have

been taught each academic year by ECME faculty. And in the past three years, ECME faculty members have taught at least five Family Studies courses each academic year.

The original plan for ECME included five-tenure/tenure track faculty. However, this plan was never realized. From 1998 to 2000 the ECME program had 4.5-tenure/tenure track faculty. From 2000 to 2007 the ECME program operated with only 2.5 faculty. Similarly, the Family Studies program experienced significant attrition of its faculty from 1998 to 2015, decreasing from nine tenure/tenure track faculty members to only two. Given this history, a primary reason for the merger proposal is the need to create a future-oriented program with a critical mass of faculty able to sustain both quality and expansion to meet the needs of its students and to contribute meaningfully to the field of Family & Child Studies. Especially in light of the economic challenges affecting higher education, it seems clear that two programs in the College of Education, functioning separately and with only five full-time tenure-track faculty total (two FS and three ECME), would not be able to sustain quality and growth. In addition, the colleagues in Family Studies and ECME see such a merger as exactly the type of redesign and interdisciplinary initiative that the university is encouraging to respond effectively to the need for excellence in programs and creativity that reflects trends in a range of fields. More specifically, the faculty colleagues have agreed that merging the two programs would enable them to address more effectively the critical need for preparing professionals for positions of leadership in New Mexico in the context of programs and services for young children, their families, and the wider community.

Several important reasons factored into the re-design of our proposed bachelor of science degree program that includes a new early childhood teacher preparation pathway leading to state license.

First, July 2014 witnessed the state's adoption of two new early childhood licenses that replaced the original Birth to Grade 3 License. The "Birth to Pre K" and "Pre K to Grade Three" licenses. The state adopted a "non-licensure" Birth to PreK option for early childhood professionals who require a degree in early childhood but not a state license (e. g., Head Start personnel).

Second, the Early Childhood Teacher Preparation pathway in New Mexico includes a complete Associate of Arts degree program requiring 35 general education credits and 29 professional courses that are offered at almost every community college and branch campus in New Mexico. Unlike other teacher educator programs in New Mexico, Early Childhood Educator programs are under a statewide full articulation agreement that requires UNM to accept 11 of the 20 required professional courses for licensure taken at any of the other colleges in New Mexico.

Third, since 2002, the state has adopted a "universal curriculum" in early childhood which mandates that all courses for Associate and Bachelor level degrees have identical course titles, course descriptions, and course competencies, a comprehensive review of all Associate degree programs in the state revealed a wide range of quality in Associate of Arts Early Childhood programs across our state.

Fourth, we are concerned that our ability to be accountable for the quality of our program and the competency level of our graduates would be compromised by the fact that students could transfer in 86 of the 135 credits required courses from other institutions under state articulation and our own university rules.

Fifth, our governor signed into law Senate Bill 329 in April of this year. This act amends the school personnel act by reducing the general education requirements for teachers in New Mexico. In response to SB 329, our college established a Curriculum Consensus Committee to approve modifications to existing teacher preparation degree programs and to enhance our teacher preparation programs with additional course work aimed at cultural responsiveness, classroom assessment, bilingual education, and special education.

Sixth, in 2014 the provost's office encouraged undergraduate degree programs to develop 120 credit degree plans in order to align with national trends that also would address the increasing cost of higher education, and graduation rates.

To these ends, the FCS program is proposing three concentrations that address these six issues. The revised Bachelor of Science degree will offer two 120-credit concentrations and one 121-credit concentration that leads to PreK to Grade 3 New Mexico teaching license. Taken together, HDFS, ECED, and ECME Pre-K to Grade 3 concentrations will afford students with opportunities to develop deep understandings of children's growth, development and learning, family health and well-being as well as acquiring deep knowledge of the important ways in which family relationships, socialization, and community engagement factor into children's readiness for succeeding in school.

The proposed revision will offer a high-quality, state of the art program that responds to the Provost Office's of increasing graduation and reducing total number of credits in undergraduate programs offered at UNM. In the revised FCS program, the total number of credits required in two non-license concentrations of the bachelor level degree program will be 120 credits (i. e., a reduction from 135 to 120 credits) and the Pre-K to Grade 3 license pathway will be 121 credits. In addition, the proposed revision modifies and updates existing courses from both Family Studies and ECME and also includes new courses from within the College of Education in preparing teachers for the PreK to Grade 3 teaching license.

The FCS faculty strongly believe the re-designed early childhood teacher preparation concentration and the proposed non-licensure early childhood education and development concentration address shortcomings of the current undergraduate teacher preparation method in New Mexico that has heretofore focused primarily on transferability from community colleges and focus on state certification. The original Early Childhood licensure model in NM was designed prior to the adoption of the three-tier teacher licensing system in New Mexico, and the significant growth of diversity of early childhood positions in New Mexico that require higher education but not state certification. Our new design assures quality, cost efficiency, and comprehensiveness in early childhood teacher preparation, and in preparing professionals to work in a variety of positions that serve young children, families, and communities.

### **Impact of Long-Range Planning**

The faculty who would comprise the proposed Family and Child Studies program have completed a comprehensive curriculum review and have created a 2-year schedule of undergraduate course offerings. (See **Appendix 1** for the Bachelor level schedule.) The proposed changes will allow the Department of Individual, Family, and Community Education (IFCE) to *reduce* its scheduling load because the merger of the two existing programs will include:

- Consolidating eight existing FS and ECME courses into four FCS courses.

- Scheduling fewer ITV courses (given that most of the courses in two FCS degree concentrations will only be offered on main campus).
- More efficient use of Teaching Assistants and Part Time Instructors.
- Relying on Special Education faculty to teach FCS 321. (Their expertise is specific to this course; see Appendix 2.)

In view of student graduation, curricular importance, admission to the program requirements, and increasing enrollment in our undergraduate courses, the FCS program will also need to make these changes:

- We will increase the frequency of offering one course (FCS 105: Introduction to Family and Child Studies). Although this is a core course and students are required to complete this course before being admitted into the program, it is currently taught only once a year and therefore delays student admission into the program and subsequent graduation.
- We will offer a new freshmen level course (FCS 102: Carpe Noctem: Sleep, Health & Family) once a year. A second course, 104: Children's Motivational Development, will also be developed. Although these are elective courses, they will serve as recruitment/feeder for FCS majors. In addition, based on faculty research interest and expertise, these offerings will help faculty strengthen the links between their research and undergraduate teaching. As important, students will be offered an intellectual forum for developing specific research interests in family and child studies early in their academic life.
- We will reduce the frequency of offering licensure courses to once a year instead of our offering all courses both fall and spring. Stringent advising through student advisors and program faculty utilizing detailed paper and web-based resources will be implemented to ensure students stay on track to graduate in a timely manner.

These changes will increase our ability to offer all courses in all concentrations and, therefore, in addition reducing total required credits to 120/121, we effectively minimize time-to-graduation for all undergraduate students in our program.

Faculty strength is obviously a key component of any program revision or merger. The current faculty composition of five tenure-track faculty and one lecturer with a search presently underway for a sixth tenure-track faculty member is sufficient to staff this merged program with one exception. The Family Studies Program currently holds a provisional accreditation from the National Council on Family Relations to offer the Certified Family Life Educator credential at the bachelor's level. The provision exists because no current faculty are themselves certified. Furthermore, the program currently has qualified part-time instructors but not full-time faculty to teach several of the courses related to consumer sciences. FLE certification is a preferred qualification in the current ongoing search, and adding faculty expertise in consumer sciences will be an important priority in the next few years.

### **Detailed Budget Analysis**

In order to determine the budgetary implications and the broader resource needs of this revised undergraduate curriculum, we first articulated the current faculty expertise relative to the proposed curriculum (Table 1). Then we determined the preferred qualifications for instructors for each course (Table 1). We used these two analyses to construct a two-year staffing projection. From these analyses, we were able to determine what the staffing needs for this program will likely be (Table 2).

Table 1 demonstrates that the current faculty expertise maps onto the proposed curriculum with two exceptions (marked with red shade in the table). The first, as was described in the previous section, is the lack of expertise with consumer science courses. The second is the single course in marriage and families. The program has been addressing these needs through part-time instruction, which is an acceptable short and medium term solution. The FCS program will attend to the long-term issues within its future hiring requests.

Table 1 also articulates the preferred qualifications of instructors for each course in the revised program. Those courses designated for faculty-only instruction are core courses and/or require specific faculty expertise (e.g. those electives designed around faculty research expertise). Some courses have been designated as faculty or part-time instructor depending on faculty availability. Finally, a few courses have been designated as TA or PTI only. These courses are ones in which doctoral students will gain teaching experience. Thus 20 (54%) courses have been designated as faculty-only; 16 (43%) courses are designated as faculty or TA/PTI; and 1 course (3%) has been designated for TA/PTI only. Those proportions are similar to the actual proportions of sections taught by faculty, TAs and PTIs during the last two academic years.

Table 2 displays an example two-year schedule. The frequency of courses is based on the sample plans of study appended and on historical frequency of offerings. It is an “example” in terms of the exact ratio of faculty to TA/PTI assignments. It also conforms to the preferred instructor qualifications. This example schedule demonstrates that in Academic Year 2016-2017, 5.55 regular faculty FTE are needed for this undergraduate curriculum and in AY2017-2018, 4.95 regular faculty FTE are needed. For comparison, in AY14-15, FS and ECME employed 3.7 regular faculty FTE in undergraduate instruction. Given the known course reassignments for program coordination, the new assistant professor, and for the lecturer’s other duties, there remains 1.2 regular faculty FTE in AY16-17 and 1.8 regular faculty FTE in AY17-18 for graduate instruction. That is roughly eight graduate course sections per year, which should prove adequate for the graduate programs also being proposed for the FCS program. This example schedule also demonstrates that in AY16-17, the schedule will require 6.75 FTE of TA/PTI use and in AY17-18, 7.25 FTE of TA/PTI use. For comparison, in AY14-15, FS and ECME employed 8.0 FTE of TA/PTI use in undergraduate instruction.

The changes to the undergraduate programs should have no large impact on student enrollments by themselves. The clarity of the program identity, the articulated degree pathways, and the 120/121 hour options, might attract additional majors, but that growth should be incremental and thus manageable. Therefore, we foresee no student-driven changes in the resources required for the program.

In summary, the revised undergraduate program should permit more regular faculty FTE and less TA/PTI than the current undergraduate programs while still providing sufficient regular faculty FTE for graduate instruction. The mismatches between current faculty expertise and that required in the revised program are slight and can be addressed over time. There should also be no appreciable change in number of undergraduate majors.

## Curricular Changes Required at the Bachelor Level

### **Section A: Existing Degree Programs:**

Three Bachelor level degrees currently exist in Family Studies. They are:

- 1) The Bachelor of Science (B.S.) in Family Studies (FS) in the College of Education;
- 2) The Bachelor of Arts (B.A.) in Family Studies (FS) offered in the College of Arts and Sciences; and
- 3) The Bachelor of Science (B.S.) degree in Human Development and Family Relations (HDFR) in the College of Education



One Bachelor level degree currently exists in the ECME program. It offers the Bachelor of Science (B.S.) degree in Early Childhood Multicultural Education (ECME) in the College of Education.

### **Section B: The Proposed FCS Degree Program**

Two bachelor level degrees will be offered under the FCS Program. They are:

- 1) The Bachelor of Science (B.S.) in Family and Child Studies (FCS) in the College of Education;
- 2) The Bachelor of Arts (BA) in Family and Child Studies (FCS) in the College of A&S.

The proposed B.S. degree in FCS program will be offered with three concentrations:

- 1) Early Childhood Education and Development (ECED)
- 2) Human Development and Family Relations (HDFR)
- 3) Early Childhood Multicultural Education Licensure (ECMEL), Pre-K to Grade 3

The proposed program of studies for ECED, HDFR, and ECMEL concentrations of the FCS Bachelor of Science degree are found in **Appendix 3**.

### **Section C: Forms**

The proposed revisions will include the following curricular forms at the undergraduate level:

#### **Form C – Deletion and/or revision**

1. Deletion of the ECME Bachelor of Science degree.
2. Deletion of the HDFR Bachelor of Science degree.
3. Revision of the FS Bachelor of Science degree into the FCS Bachelor of Science Degree
4. Creation of the Human Development and Family Relations concentration of the Bachelor of Science in FCS.
5. Creation of the Early Childhood Education and Development concentration of the Bachelor of Science in FCS.
6. Creation of Early Childhood Multicultural Education Licensure, Pre-K to Grade 3 of the Bachelor of Science in FCS
7. Revision of the FS Minor to create FCS minor
8. Deletion of the HDFR Minor.
9. Revision of the FS Bachelor of Arts degree into the FCS Bachelor of Arts degree.
10. Authorization to count ARTE as fulfilling the UNM Core Fine Arts Requirements

**Form B –** New courses are developed as feeder for FCS and as the requirements for the ECMEL Pre-K to Grade 3 Licensure track in FCS

- FCS 102: Carpe Noctem: Sleep, Health & the Family (3)
- FCS 302: Emergent Literacy (3)
- FCS 316 Early Childhood Pedagogy & Curriculum (3)
- FCS 321 Young Children with Diverse Abilities (3)
- FCS 405: Advanced Caregiving for Infants and Toddlers (3)
- FCS 406: Teaching and Learning Math and Science (3)
- FCS 408: Teaching and Learning Social Studies, Fine Arts & Movement (3)
- FCS 440: Student Teaching Seminar (3)

**Form A** – FS/ECME Courses revised for proposed FCS program that involves New Prefix or New Number or Revised Course Title.

| <b>Existing Program</b> | <b>Existing Course Prefix, Number, &amp; Title in FS</b> | <b>Revised Course Prefix, Number, &amp; Title in FCS</b> | <b>Action</b>                             |
|-------------------------|----------------------------------------------------------|----------------------------------------------------------|-------------------------------------------|
| FS – Family Studies     | FS 202: Infant Growth and Development                    | FCS 203: Infant Growth and Development                   | Prefix; Course Number                     |
|                         | FS 213: Marriage and Family Relationships                | FCS 213: Marriage and Family Relationships               | Prefix                                    |
|                         | FS 281: Introduction of Family Studies                   | FCS 105: Introduction to Family and Child Studies        | Prefix; Course Number; New Title          |
|                         | FS 304: Growth & Development in Middle Childhood         | FCS 304: Growth & Development in Middle Childhood        | Prefix                                    |
|                         | FS 310: Friends & Intimate Relationships                 | FCS 310: Friends & Intimate Relationships                | Prefix                                    |
|                         | FS 312: Parent- Child Interactions                       | FCS 312: Parent- Child Interactions                      | Prefix                                    |
|                         | FS 313: Family Theories and Contemporary Lifestyles      | FCS 313: Family Theories                                 | Prefix                                    |
|                         | FS 315: Adolescent Development in the Family             | FCS 315: Adolescent Development in the Family            | Prefix                                    |
|                         | FS 341: Ecological Aspects of Housing                    | FCS 341: Ecological Aspects of Housing                   | Prefix                                    |
|                         | FS 343: Family Management Theories                       | FCS 343: Family Management Theories                      | Prefix; remove “permission of instructor” |
|                         | FS 344: Consumer Decisions                               | FCS 344: Consumer Decisions                              | Prefix                                    |
|                         | FS 391: Problems                                         | FCS 391: Problems                                        | Prefix; Instructor Permission             |
|                         | FS 395: Field Experience I                               | FCS 395: Field Experience                                | Prefix; Instructor Permission             |
|                         | FS 403: Growth and Development of the Preschool Child    | FCS 403: Growth and Development of the Preschool Child   | Prefix                                    |
|                         | FS 407L: Preschool Child Laboratory                      | FCS 407L: Preschool Child Lab                            | Prefix                                    |

|                                                |                                                                         |                                                                 |                                                          |
|------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------------------------|
|                                                | FS 411: Marriage & Family Life Education                                | FCS 411: Marriage & Family Life Education                       | Prefix                                                   |
|                                                | FS 412: Fathering                                                       | FCS 412: Fathering                                              | Prefix                                                   |
|                                                | FS 416: Adult Development in the Family                                 | FCS 416: Adult Development in the Family                        | Prefix                                                   |
|                                                | FS 443: Application of Family Management Theories                       | FCS 443: Application of Family Management Theories              | Prefix                                                   |
|                                                | FS 481: Families and Public Policy                                      | FCS 481: Public Policy and Advocacy in Family and Child Studies | Prefix; Junior Standing                                  |
|                                                | FS 484: Ethnic Minority Families                                        | FCS 484: The Sociocultural Context of Families                  | Prefix; New Title; Junior Standing                       |
|                                                | FS 493: Topics                                                          | FCS 493: Topics                                                 | Prefix                                                   |
|                                                | FS 497: Reading & Research in Honors I                                  | FCS 497: Reading & Research in Honors I                         | Prefix; Instructor Permission                            |
|                                                | FS 498: Reading & Research in Honors II                                 | FCS 498: Reading & Research in Honors II                        | Prefix; Instructor Permission                            |
|                                                | FS 499: Honors Thesis                                                   | FCS 499: Honors Thesis                                          | Prefix; Instructor Permission                            |
|                                                |                                                                         |                                                                 |                                                          |
| ECME – Early Childhood Multicultural Education | ECME 305: Research and Evaluation in Early Childhood                    | FCS 305: Research and Evaluation in Family and Child Studies    | Prefix; New Title; Junior Standing                       |
|                                                | ECME 311: Family and Community Collaboration II                         | FCS 311: Family, Language and Culture                           | Prefix; New Title; Credit value change (2 to 3 credits)  |
|                                                | ECME 401: Research in Child Growth, Development, and Learning           | FCS 401: Research in Child Growth, Development, and Learning    | Prefix                                                   |
|                                                | ECME 402: Teaching and Learning Reading and Writing                     | FCS 402: Teaching and Learning Reading and Writing              | Prefix; New Title                                        |
|                                                | ECME 417L: Methods and Materials for the Early Primary Grades Practicum | FCS 417L: Teaching and Learning Practicum                       | Prefix; New Title                                        |
|                                                | ECME 440L: Student Teaching Lab                                         | FCS 440L: Student Teaching Lab                                  | Prefix; New Title; Credit value change (12 to 9 credits) |



**Form A** – Lower Division FCS courses that are required to be offered as “Also Offered As” courses with UNM branch ECME courses. These courses are required for the Associate of Arts in ECME at branch campuses and FCS Bachelor of Science ECED and ECMEL Pre-K to Grade 3 concentrations on main campus.

| <b>Existing ECME Program in Branch Campuses</b>    | <b>Existing ECME Course Number and Title in Branch Campuses</b> | <b>Equivalent to FCS Course Number and Title</b>                    | <b>Action</b>                    |
|----------------------------------------------------|-----------------------------------------------------------------|---------------------------------------------------------------------|----------------------------------|
| ECME – Early Childhood and Multicultural Education | ECME 101: Child Growth, Development & Learning                  | FCS 101: Child Growth, Development & Learning                       | Prefix; AOA ECME 101             |
|                                                    | ECME 103: Health Safety, & Nutrition                            | FCS 103: Health Safety, & Nutrition                                 | Prefix; AOA ECME 103             |
|                                                    | ECME 111: Family and Community Collaboration I                  | FCS 111: Family and Community Collaboration                         | Prefix; New Title; AOA ECME 111  |
|                                                    | ECME 115: Guiding Young Children                                | FCS 115: Guiding Young Children                                     | Prefix; AOA ECME 115             |
|                                                    | ECME 117: Curriculum and Implementation I                       | FCS 117: Curriculum Development Through Play Birth Through Age 4    | Prefix; New Title; AOA ECME 117  |
|                                                    | ECME 117L: Curriculum and Implementation Practicum I            | FCS 117L: Practicum Birth through Age 4                             | Prefix; New Title; AOA ECME 117L |
|                                                    | ECME 202 Introduction to Reading and Literacy Development       | FCS 202: Introduction to Reading, Language & Literacy               | Prefix; New Title; AOA ECME 202  |
|                                                    | ECME 217: Curriculum and Implementation II                      | FCS 217: Curriculum Development and Implementation Age 3 to Grade 3 | Prefix; New Title; AOA ECME 217  |
|                                                    | ECME 217L: Curriculum and Implementation Practicum II           | FCS 217L: Practicum Age 3 to Grade 3                                | Prefix; New Title; AOA ECME 217L |
|                                                    | ECME 220: Assessment of Children and Evaluation of Programs I   | FCS 220: Assessment of Children & Evaluation of Programs            | Prefix; New Title; AOA ECME 220  |
|                                                    | ECME 230: Professionalism                                       | FCS 230: Professionalism                                            | Prefix; AOA ECME 230             |

**Form A – Courses deleted from ECME**

- ECME 315: Public Policy, Leadership, Ethics & Reform in ECE
- ECME 317: Integrated Early Childhood Curriculum
- ECME 317L: Integrated Early Childhood Curriculum Practicum
- ECME 391: Problems
- ECME 325: The Social, Political, & Cultural Contexts of Children & Families
- ECME 402L: Teaching Reading & Writing Practicum
- ECME 417: Method & Materials for the Early Primary Grades
- ECME 493: Topics in Early Child Education
- ECME 497: Reading & Research in Honors I
- ECME 498: Reading & Research in Honors II
- ECME 499: Honors Thesis
- 

**Form A – Courses deleted from FS**

- FS 207L Infant Lab
- FS 444 Family Finance
- FS 495 Field Experience II

APPENDIX 1  
**Resource Needs for the Family and Child Studies Undergraduate Degrees**

Table 1: Faculty Expertise and Preferred Instructor Qualifications for All Undergraduate FCS Courses

| Course Number | Course title                          | Preferred Instructor Qualifications | Kessel | Hossain | Atencio | Gutierrez-Gomez | Kelly | Lecturer | Asst. Professor |
|---------------|---------------------------------------|-------------------------------------|--------|---------|---------|-----------------|-------|----------|-----------------|
| 101           | Child Growth Dev Learn                | F or TA/PTI                         | X      | X       | X       | X               | X     | X        | X               |
| 102           | Carpe Noctem: Sleep                   | Faculty                             |        |         |         |                 | X     |          |                 |
| 103           | Health Safety & Nutrition             | F or TA/PTI                         |        |         | X       | X               |       | X        |                 |
| 105           | Introduction to FCS                   | F or TA/PTI                         | X      | X       | X       | X               | X     | X        | X               |
| 111*          | Family & Community Colla              |                                     |        |         |         |                 |       |          |                 |
| 115           | Guiding Young Children                | F or TA/PTI                         | X      | X       | X       | X               | X     | X        | X               |
| 117*          | Curriculum Dev & Play                 |                                     |        |         |         |                 |       |          |                 |
| 117L*         | Practicum: Birth to Age 4             |                                     |        |         |         |                 |       |          |                 |
| 202*          | Intro to Reading, Language            |                                     |        |         |         |                 |       |          |                 |
| 203           | Infant Growth & Dev                   | TA or PTI                           | X      | X       | X       | X               | X     | X        | X               |
| 213           | Marriage & Family Relation            | F or TA/PTI                         | X      | X       | X       | X               | X     | X        | X               |
| 217*          | Curriculum Dev & Implem               |                                     |        |         |         |                 |       |          |                 |
| 217L*         | Practicum: Age 3 -Grade 4             |                                     |        |         |         |                 |       |          |                 |
| 220*          | Assessment of Children                |                                     |        |         |         |                 |       |          |                 |
| 230           | Professionalism                       | Faculty                             | X      |         | X       | X               |       | X        |                 |
| 302           | Emergent Literacy                     | Faculty                             |        |         |         | X               |       |          |                 |
| 304           | Middle Childhood                      | F or TA/PTI                         | X      | X       | X       | X               | X     | X        | X               |
| 305           | Research & Evaluation                 | Faculty                             | X      | X       | X       | X               | X     | X        | X               |
| 310           | Friends & Intimate Rela               | F or TA/PTI                         |        | X       |         |                 | X     |          | X               |
| 311           | Family, Language and                  | Faculty                             | X      |         | X       | X               |       | X        |                 |
| 312           | Parent-Child Interactions             | F or TA/PTI                         | X      | X       | X       | X               | X     | X        | X               |
| 313           | Family Theories                       | F or TA/PTI                         |        | X       |         |                 | X     |          | X               |
| 315           | Adolescent Development                | F or TA/PTI                         | X      | X       | X       | X               | X     | X        | X               |
| 316           | Early Childhood Pedagogy              | Faculty                             |        |         | X       | X               |       | X        |                 |
| 321           | Young Children with Diverse Abilities | SPED                                |        |         |         |                 |       |          |                 |

| Course Number | Course title                                   | Preferred Instructor Qualifications | Kessel | Hossain | Atencio | Gutierrez-Gomez | Kelly | Lecturer | Asst. Professor |
|---------------|------------------------------------------------|-------------------------------------|--------|---------|---------|-----------------|-------|----------|-----------------|
| 341           | Ecological Aspects of                          | F or TA/PTI                         |        |         |         |                 |       |          |                 |
| 343           | Family Mgmt. Theories                          | F or TA/PTI                         |        |         |         |                 |       |          |                 |
| 344           | Consumer Decision                              | F or TA/PTI                         |        | X       |         |                 |       |          |                 |
| 391           | Problems                                       | Faculty                             |        |         |         |                 |       |          |                 |
| 395           | Field Experience                               | Faculty                             | X      | X       | X       | X               | X     | X        | X               |
| 401           | Research in Child Growth                       | Faculty                             | X      | X       | X       | X               | X     | X        | X               |
| 402           | Teaching & Learning Read & Writing             | Faculty                             |        |         | X       | X               |       | X        |                 |
| 403/407L      | Preschool Child; Preschool Lab                 | Faculty                             | X      | X       | X       | X               | X     | X        | X               |
| 405           | Advanced Caregiving for Infants and Toddlers   | Faculty                             |        |         | X       | X               |       | X        |                 |
| 406           | Teaching & Learning: Math & Science            | Faculty                             |        |         |         | X               |       | X        |                 |
| 408           | Teaching & Learning: Social Studies, Fine Arts | Faculty                             |        |         |         | X               |       | X        |                 |
| 411           | Marriage & Family Life                         | F or TA/PTI                         |        |         |         |                 |       |          |                 |
| 412           | Fathering                                      | Faculty                             |        | X       |         |                 |       |          |                 |
| 416           | Adult Development                              | F or TA/PTI                         | X      | X       | X       | X               | X     | X        | X               |
| 417L          | Teach & Learn: Practicum                       | Faculty                             | X      |         | X       | X               |       | X        |                 |
| 440/440L      | Student Teaching Seminar; Practicum            | Faculty                             |        |         |         | X               |       | X        |                 |
| 443           | Application of Family                          | F or TA/PTI                         |        |         |         |                 |       |          |                 |
| 481           | Public Policy & Advocacy                       | Faculty                             | X      |         |         |                 |       |          |                 |
| 484           | The Sociocultural Context of Families          | Faculty                             | X      | X       | X       | X               | X     | X        | X               |
| 493           | Topics                                         | Faculty                             |        |         |         |                 |       |          |                 |
| 497           | Reading & Research in Honors I                 | Faculty                             |        |         |         |                 |       |          |                 |
| 498           | Reading & Research in Honors II                | Faculty                             |        |         |         |                 |       |          |                 |

| Course Number | Course title  | Preferred Instructor Qualifications | Kessel | Hossain | Atencio | Gutierrez-Gomez | Kelly | Lecturer | Asst. Professor |
|---------------|---------------|-------------------------------------|--------|---------|---------|-----------------|-------|----------|-----------------|
| 499           | Honors Thesis | Faculty                             |        |         |         |                 |       |          |                 |

Table 2: Example Two-Year Schedule For Undergraduate FCS Courses

| FCS Courses  |                                                | Fall 2016 | Spring 2017 | Summer 2017 | Fall 2017 | Spring 2018 |
|--------------|------------------------------------------------|-----------|-------------|-------------|-----------|-------------|
| 101          | Child Growth Dev Learn                         | F         | F           |             | TA/PTI    | TA/PTI      |
| 102          | Carpe Noctem: Sleep                            | F         |             |             | F         |             |
| 103          | Health Safety & Nutrition                      |           | TA/PTI      |             |           | TA/PTI      |
| 105          | Introduction to FCS                            | F         | F           |             | F         | F           |
| 111*         | Family & Community Colla                       |           |             |             |           |             |
| 115          | Guiding Young Children                         | TA/PTI    | TA/PTI      |             | TA/PTI    | TA/PTI      |
| 117*         | Curriculum Dev & Play                          |           |             |             |           |             |
| 117L*        | Practicum: Birth to Age 4                      |           |             |             |           |             |
| 202*         | Intro to Reading, Language                     |           |             |             |           |             |
| 203          | Infant Growth & Dev                            | TA/PTI    |             |             | TA/PTI    |             |
| 213          | Marriage & Family Relation                     | TA/PTI    | TA/PTI      | TA/PTI      | TA/PTI    | TA/PTI      |
| 217*         | Curriculum Dev & Implem                        |           |             |             |           |             |
| 217L*        | Practicum: Age 3 –Grade 4                      |           |             |             |           |             |
| 220*         | Assessment of Children                         |           |             |             |           |             |
| 230          | Professionalism                                |           | F           |             |           | F           |
| 302          | Emergent Literacy                              |           | F           |             |           | F           |
| 304          | Middle Childhood                               |           | TA/PTI      |             |           | TA/PTI      |
| 305          | Research & Evaluation                          | F         | F           |             | F         | F           |
| 310          | Friends & Intimate Rela                        | TA/PTI    | TA/PTI      |             | TA/PTI    | TA/PTI      |
| 311          | Family, Language and                           | F         |             |             | F         |             |
| 312          | Parent-Child Interactions                      | TA/PTI    | TA/PTI      |             | TA/PTI    | TA/PTI      |
| 313          | Family Theories                                | TA/PTI    |             |             | TA/PTI    |             |
| 315          | Adolescent Development                         | TA/PTI    | TA/PTI      |             | TA/PTI    | TA/PTI      |
| 316          | Early Childhood Pedagogy                       | F         |             |             | F         |             |
| 321          | Young Children with Diverse Abilities          |           | F (ITV)     |             |           | F (ITV)     |
| 341          | Ecological Aspects of                          |           | Y           |             |           | Y           |
| 343          | Family Mgmt. Theories                          | TA/PTI    | TA/PTI      |             | TA/PTI    | TA/PTI      |
| 344          | Consumer Decision                              |           |             | TA/PTI      |           |             |
| 391          | Problems                                       | ARR       | ARR         | ARR         | ARR       | ARR         |
| 395          | Field Experience                               | F         | F           | F           | F         | F           |
| 401          | Research in Child Growth                       | F         |             |             | F         |             |
| 402          | Teaching & Learning Read & Writing             | F         |             |             | F         |             |
| 403/<br>407L | Preschool Child; Preschool Lab                 |           | F           |             |           | F           |
| 405          | Advanced Caregiving for Infants and Toddlers   | F         |             |             | F         |             |
| 406          | Teaching & Learning: Math & Science            |           | F           |             |           | F           |
| 408          | Teaching & Learning: Social Studies, Fine Arts | F         |             |             | F         |             |
| 411          | Marriage & Family Life                         | TA/PTI    |             |             | TA/PTI    |             |
| 412          | Fathering                                      |           | TA/PTI      |             |           | TA/PTI      |
| 416          | Adult Development                              | TA/PTI    |             |             | TA/PTI    |             |
| 417L         | Teach & Learn: Practicum                       |           | TA/PTI      |             |           | TA/PTI      |
| 440/<br>440L | Student Teaching Seminar; Practicum            | F (ITV)   |             |             | F (ITV)   |             |
| 443          | Application of Family                          | TA/PTI    |             |             | TA/PTI    |             |
| 481          | Public Policy & Advocacy                       | F         | F           |             | F         | F           |
| 484          | The Sociocultural Context of Families          | F         | F           | F           | F         | F           |
| 493          | Topics                                         | ARR       | ARR         | ARR         | ARR       | ARR         |
| 497          | Reading & Research in Honors I                 | ARR       | ARR         | ARR         | ARR       | ARR         |
| 498          | Reading & Research in Honors II                | ARR       | ARR         | ARR         | ARR       | ARR         |
| 499          | Honors Thesis                                  | ARR       | ARR         | ARR         | ARR       | ARR         |

\* – Branch Campus Only; F – Course will be offered by regular faculty; TA/PTI – Course will be offered by TA/ PTI; ARR – will be arranged by faculty

## APPENDIX 2

### Memos addressing potential duplication

| [March 22, 2016](#)~~January 14, 2016~~



## MEMORANDUM FROM SPECIAL EDUCATION PROGRAM REGARDING FCS 321

---

Wednesday, April 16, 2014 at 10:58:40 AM Mountain Daylight Time

**Subject:** FS 321

**Date:** Wednesday, March 26, 2014 at 10:51:39 AM Mountain Daylight Time

**From:** Elizabeth Keefe

**To:** David Atencio

Dear David:

Thank you for presenting the FS 321 course to the Special Education Faculty on October 3rd, 2013. The faculty voted unanimously to support the offering of this course as part of the new Early Childhood degree. This course does not have significant overlap with any existing SPCD courses. There are special education faculty who would be interested in teaching this course if needed.

Sincerely,

Liz Keefe  
Program Coordinator, Special Education

Page 1 of 1

| [March 22, 2016](#)[January 14, 2016](#)

**Memorandum from TEELP regarding the entire sequence**

**From:** Cheryl Torrez <[catorrez@unm.edu](mailto:catorrez@unm.edu)>  
**Subject:** RE: Family and Child Studies Form B approvals  
**Date:** April 11, 2013 11:30:35 AM MDT  
**To:** David Atencio <[datencio@comcast.net](mailto:datencio@comcast.net)>

David, **We see no conflict at all with these courses.** Thanks for your outstanding work! Also, I was in Zuni recently, and a few students were interested in ECME. So, if you receive emails, .... just a heads up.  
Thanks, Cheryl

Cheryl A. Franklin Torrez, Ph.D.  
Associate Professor and Interim Department Chair  
Department of Teacher Education  
The University of New Mexico  
MSC 05 2040  
Albuquerque, NM 87131-000  
(505) 277-9611

**From:** David Atencio [[datencio@comcast.net](mailto:datencio@comcast.net)]  
**Sent:** Monday, April 08, 2013 8:12 AM  
**To:** Cheryl Torrez  
**Cc:** David Atencio  
**Subject:** Family and Child Studies Form B approvals

Good morning Cheryl,

I hope you are off to another exciting and breezy Monday morning! As I shared with you earlier, part of the merger of the Family Studies Program and the ECME program into the new Family and Child Studies program involves the creation of new courses that are in accordance with the revised Birth to PreK and the PreK to Grade Three teacher preparation pathways. These two new degree pathways were approved by the Professional Practices and Standards Council from PED for UNM, NMSU ENMU, WNMU, and NMHU on November 18, 2011. As you may know, we have a universal curriculum for all Associate Degree and Bachelor level degree early childhood programs in New Mexico. Our universal curriculum aligns with the core competencies for both the Birth to PreK and PreK to Grade Three licenses.

As part of the curriculum review process, we respectfully request your review of the attached syllabi for possible duplication with any of your department's courses. Please let me know if I can assist with any questions your faculty may have for us. On behalf of my FCS colleagues, I thank you for assistance with this important task.

Thanks again,  
David



STATE OF NEW MEXICO  
PUBLIC EDUCATION DEPARTMENT  
300 DON GASPAR  
SANTA FE, NEW MEXICO 87501-2786  
Telephone (505) 827-5800  
[www.ped.state.nm.us](http://www.ped.state.nm.us)

HANNA SKANDERA  
SECRETARY-DESIGNATE OF EDUCATION

SUSANA MARTINEZ  
Governor

March 5, 2012

Dr. David Atencio  
ECME Program Coordinator  
1 University of New Mexico  
Simpson Hall  
Albuquerque, New Mexico 87131

Dear Dr. Atencio:

I am pleased to accept the recommendation of the Professional Practices and Standards Council (FPSC) which met on November 18, 2011 to approve Teacher Quality statewide universal early childhood education licensure programs for birth to PreK and PreK to grade 3.

The approved programs apply only to four year universities, specifically Eastern New Mexico University, New Mexico Highlands University, New Mexico State University, University of New Mexico and Western New Mexico University. Also this program does not apply to any early childhood alternative licensure programming.

The community colleges involved do not need NMPED licensure approval, but are expected to provide the universal coursework for transferability and transparency among all state approved early childhood programs.

Your program will provide much-needed support to the school districts in our state.

Please extend my appreciation to your administrators, faculty, and your staff for your preparation and the presentation of your program to the members of the FPSC. I wish you and your staff at ECME every success.

Warm regards,

A handwritten signature in cursive script that reads "Hanna Skandera".

Hanna Skandera  
Secretary Designate of Education

HS/MM/egm

cc: Mary Lou Lovato, NMPED Professional Licensure

Revised 01.04.11

March 22, 2016 January 14, 2016

### APPENDIX 3

#### PROPOSED FCS PROGRAM OF STUDIES FOR

1. **B.S. in Human Development and Family Relations concentration (HDFR)**
2. **General Education courses for the HDFR concentration**
3. **B. S. in Early Childhood Education and Development concentration (ECED)**
4. **Required General Education courses for the ECED concentration**
5. **B.S. in Early Childhood Multicultural Education Licensure Pre-K to Grade 3 concentration (ECMEL)**
6. **Required General Education courses for the ECMEL Pre-K to Grade 3 concentration**
7. **Minor in Family and Child Studies**
8. **B.A. in Family and Child Studies (for A&S students)**

|                                         |
|-----------------------------------------|
| <b>B.S. in Family and Child Studies</b> |
|-----------------------------------------|

**Concentration: Human Development and Family Relations – HDFR (proposed)****Family and Child Studies Courses**

| <b>FCS Core Curriculum</b>                |                                                        | <b>12 Credits</b> |
|-------------------------------------------|--------------------------------------------------------|-------------------|
| FCS 105                                   | Introduction to Family and Child Studies               | 3                 |
| FCS 305                                   | Research and Evaluation in Family and Child Studies    | 3                 |
| FCS 481                                   | Public Policy and Advocacy in Family and Child Studies | 3                 |
| FCS 484                                   | The Sociocultural Context of Children and Families     | 3                 |
| <b>HDFR Concentration Core Curriculum</b> |                                                        | <b>13 Credits</b> |
| FCS 213                                   | Marriage and Family Relationships                      | 3                 |
| FCS 312                                   | Parent-Child Interactions                              | 3                 |
| FCS 395                                   | Field Experience                                       | 3                 |
| FCS 403                                   | Growth and Development of the Preschool Child          | 3                 |
| FCS 407L                                  | Preschool Child Lab                                    | 1                 |
| <b>Family Relations</b>                   |                                                        | <b>9 Credits</b>  |
| FCS 310                                   | Friends and Intimate Relationships                     | 3                 |
| FCS 313                                   | Family Theories and Contemporary Lifestyles            | 3                 |
| FCS 411                                   | Marriage and Family Life Education                     | 3                 |
| FCS 412                                   | Fathering                                              | 3                 |
| <b>Human Development</b>                  |                                                        | <b>9 Credits</b>  |
| FCS 203                                   | Infant Growth and Development                          | 3                 |
| FCS 304                                   | Growth and Development in Middle Childhood             | 3                 |
| FCS 315                                   | Adolescent Development in the Family                   | 3                 |
| FCS 416                                   | Adult Development in the Family                        | 3                 |
| <b>Family Resource Management</b>         |                                                        | <b>6 Credits</b>  |
| FCS 341                                   | Ecological Aspects of Housing                          | 3                 |
| FCS 343                                   | Family Management Theories                             | 3                 |
| FCS 344                                   | Consumer Decisions                                     | 3                 |
| FCS 443                                   | Application of Family Management Theories              | 3                 |
| <b>Total FCS Required Hours*</b>          |                                                        | <b>49 Credits</b> |

|                                                        |            |
|--------------------------------------------------------|------------|
| Total Credits<br>(including 40 upper division credits) | 120        |
| -----                                                  |            |
| FCS Courses                                            | 49 Credits |
| Gen Ed Courses                                         | 40 Credits |
| Minor (Optional)*                                      | 18 Credits |
| Electives                                              | 13 Credits |

**\* 67 FCS credits are required to major in FCS (HDFR concentration) without a minor.**

Note: A course in human sexuality is required for the Certified Family Life Educator (CFLE) designation. Consult NCFR's website for details.

Family and Child Studies  
**General Education Requirements – HDFR concentration (Total Credits = 40)**

**AREA 1: Writing and Speaking – 9 credit hours**

ENGL 110 OR ENGL 111/112 OR 113      AND ENGL 120

Choose 1 additional course from the following: ENGL 219, ENGL 220, CJ 130, PHIL 156, UHON 201

**AREA 2: Mathematics – 3 credit hours**

STAT 145

**AREA 3: Physical and Natural Sciences – 7 credit hours**

BIO 110/112L OR BIO 123/124L AND choose 1 additional course from the following:

|                                                  |                                                    |                                                |
|--------------------------------------------------|----------------------------------------------------|------------------------------------------------|
| <b>ANTH 120:</b> Arch. Method & Theory           | <b>CHEM 101:</b> Chemistry in Our Community        | <b>PHYC 102:</b> Introduction to Physics       |
| <b>ANTH 122L:</b> Req. Lab for ANTH 120 (1cr)    | <b>CHEM 111L:</b> Elem of General Chemistry (4cr)  | <b>PHYC 102L:</b> Opt. Lab for PHYC 102 (1cr)  |
| <b>Pre-Spring 2013 ANTH 121L:</b> Arch. M&T(4cr) | <b>CHEM 121:</b> General Chemistry I               | <b>PHYC 105:</b> Physics and Society           |
| <b>ANTH 150:</b> Evol & Human Emergence          | <b>CHEM 123L:</b> Req. Lab for Chem 121 (1cr)      | <b>PHYC 151:</b> General Physics               |
| <b>ANTH 151L:</b> Opt. Lab for ANTH 150 (1cr)    | <b>CHEM 122:</b> General Chemistry II              | <b>PHYC 151L:</b> Opt. Lab for PHYC 151 (1cr)  |
| <b>ANTH 160:</b> Human Life Course               | <b>CHEM 124L:</b> Req. Lab for Chem 122 (1cr)      | <b>PHYC 152:</b> General Physics               |
| <b>ANTH 161L:</b> Opt. Lab for ANTH 160 (1cr)    | <b>CHEM 131L:</b> (Honors) Gen. Chemistry I (4cr)  | <b>PHYC 152L:</b> Opt Lab for PHYC 152 (1cr)   |
| <b>ASTR 101:</b> Intro to Astronomy              | <b>CHEM 132L:</b> (Honors) Gen. Chemistry II (4cr) | <b>PHYC 160:</b> General Physics               |
| <b>ASTR 101L:</b> Opt. Lab for ASTR 101 (1cr)    | <b>EPS 101:</b> Intro to Geology                   | <b>PHYC 160L:</b> Opt. Lab for PHYC 160 (1cr)  |
| <b>BIOL 110:</b> Biology for Non-Majors          | <b>EPS 105L:</b> Opt. Lab for EPS 101 (1cr)        | <b>PHYC 161:</b> General Physics               |
| <b>BIOL 112:</b> Opt. Lab for BIOL 110 (1cr)     | <b>EPS 201L:</b> Earth History (4cr)               | <b>PHYC 161L:</b> Opt. Lab for PHYC 161 (1cr)  |
|                                                  | <b>ENVS 101:</b> The Blue Planet                   | <b>*NTSC 261L:</b> Physical Science (4cr)      |
|                                                  | <b>ENVS 102L:</b> Opt. Lab for ENVS 101            | <b>*NTSC 262L:</b> Life Science (4cr)          |
|                                                  | <b>GEOG 101:</b> Physical Geography                | <b>*NTSC 263L:</b> Environmental Science (4cr) |
|                                                  | <b>GEOG 105L:</b> Opt. Lab for GEOG 101 (1cr)      | <b>UHON 203:</b> Science in the 21st Century   |

**AREA 4: Social and Behavioral Sciences – 6 credit hours. Choose 2 courses from the following:**

|                                                                                                 |                                                 |                                          |
|-------------------------------------------------------------------------------------------------|-------------------------------------------------|------------------------------------------|
| <b>AFTS / CCS / NATV / SUST / WMST 109:</b><br>Intro to Comparative and Global Ethnic Societies | <b>ECON 105:</b> Intro to Macroeconomics        | <b>POLS 110:</b> The Political World     |
| <b>AMST 182:</b> Intro to Env. Sci. & Technology                                                | <b>ECON 106:</b> Intro to Microeconomics        | <b>POLS 200:</b> American Politics       |
| <b>AMST 185:</b> Race, Class & Ethnicity                                                        | <b>CRP 181:</b> Intro to Environmental Problems | <b>POLS 220:</b> Comparative Politics    |
| <b>ANTH 101:</b> Intro to Anthropology                                                          | <b>ENGF 200:</b> Technology in Society          | <b>POLS 240:</b> International Politics  |
| <b>ANTH 130:</b> Cultures of the World                                                          | <b>GEOG 102:</b> Human Geography                | <b>SOC 101:</b> Intro to Sociology       |
| <b>PSY 105:</b> General Psychology                                                              | <b>LING 101:</b> Intro to Linguistics           | <b>UHON 204:</b> Individual & Collective |

**AREA 5: Humanities – 6 credit hours: Choose 2 courses from the following**

|                                                       |                                                     |                                                  |
|-------------------------------------------------------|-----------------------------------------------------|--------------------------------------------------|
| <b>AFST 104:</b> Intro to Africana Studies<br>Studies | <b>ENGL 150:</b> Study of Literature                | <b>NATV 150:</b> Intro to Native American        |
| <b>AMST 186:</b> Intro to Southwest Studies           | <b>ENGL 292/293:</b> World Literatures              | <b>PHIL 101:</b> Intro to Philosophical Problems |
| <b>CCS 201:</b> Intro to Chicana & Chicano Studies    | <b>GEOG 140:</b> World Regional Geography           | <b>PHIL 201:</b> Greek Thought                   |
| <b>CLST 107:</b> Greek Mythology                      | <b>HIST 101/L:</b> Western Civilization (to 1648)   | <b>PHIL 202:</b> From Descartes to Kant          |
| <b>CLST 204:</b> Greek Civilization                   | <b>HIST 102/L:</b> Western Civilization (from 1648) | <b>RELG 107:</b> Living World Religions          |
| <b>CLST 205:</b> Roman Civilization                   | <b>HIST 161/L:</b> History of the US to 1877        | <b>RELG 263:</b> Eastern Religions               |
| <b>CLCS 223/224:</b> Literary Questions               | <b>HIST 162:</b> History of the US since 1877       | <b>RELG 264:</b> Western Religions               |
| <b>COMP 222:</b> Fairy and Folk Tales                 | <b>HIST 181:</b> History of Early Latin America     | <b>UHON - Honors Legacy Sem, 100-200 level</b>   |
| <b>COMP 224:</b> Literary Questions                   | <b>HIST 182:</b> Modern Latin American History      | <b>UHON 205:</b> Humanities Society & Culture    |
| <b>MLNG 101:</b> Languages                            |                                                     |                                                  |

**AREA 6: Foreign Language – 3 credit hours**

One course chosen from any lower-division non-English language offerings from the Dept. of Linguistics (including Sign Language), Spanish and Portuguese, Foreign Languages and Literatures, and foreign languages in other depts. and programs (except Latin 105).

**AREA 7: Fine Arts – 3 credit hours required. Choose 1 course from the following:**

|                                                                      |                                        |                                                 |
|----------------------------------------------------------------------|----------------------------------------|-------------------------------------------------|
| <b>ARCH 121:</b> Intro to Architecture                               | <b>DANC 105:</b> Dance Appreciation    | <b>THEA 105:</b> Intro to Theatre Appreciation  |
| <b>Pre-Fall 2010 Arch 101:</b> Intro to Architecture<br>Appreciation | <b>FA 284:</b> Experiencing the Arts   | <b>Pre-Fall 2010 THEA 122:</b> Theatre          |
| <b>ARTH 101:</b> Intro to Art                                        | <b>MA 210:</b> Intro to Film and Study | <b>UHON 207:</b> Fine Art as Global Perspective |

March 22, 2016 January 14, 2016

**ARTH 201:** History of Art 1

**MUS 139:** Music Appreciation

**ARTH 202:** History of Art 2

**MUS 142:** Rock Music Appreciation

Any 3 credit hour studio or performance course offered by the Department of Art and Art History, Music, Theatre and Dance, Media Arts or IFDM.

**Additional Requirement - 3 credits hours**

NUTR 120 OR 224

|                                         |
|-----------------------------------------|
| <b>B.S. in Family and Child Studies</b> |
|-----------------------------------------|

**Concentration: Early Childhood Education & Development – ECED (proposed)****Family and Child Studies Courses**

|                                                       |                                                        |                   |
|-------------------------------------------------------|--------------------------------------------------------|-------------------|
| <b>FCS Degree Core Curriculum</b>                     |                                                        | <b>12 Credits</b> |
| FCS 105                                               | Introduction to Family and Child Studies               | 3                 |
| FCS 305                                               | Research and Evaluation in Family and Child Studies    | 3                 |
| FCS 481                                               | Public Policy and Advocacy in Family and Child Studies | 3                 |
| FCS 484                                               | The Sociocultural Context of Children and Families     | 3                 |
| <b>Concentration Curriculum (lower division)</b>      |                                                        | <b>12 Credits</b> |
| FCS 101                                               | Child Growth, Development and Learning                 | 3                 |
| FCS 102                                               | Carpe Noctem: Sleep, Health & the Family               | 3                 |
| FCS 103                                               | Health, Safety, & Nutrition                            | 2                 |
| FCS 111                                               | Family and Community Collaboration                     | 3                 |
| FCS 115                                               | Guiding Young Children                                 | 3                 |
| FCS 117                                               | Curriculum Development through Play                    | 3                 |
| FCS 202                                               | Introduction to Language, Literacy, & Reading          | 3                 |
| FCS 203                                               | Infant Growth and Development                          | 3                 |
| FCS 213                                               | Marriage and Family Relationships                      | 3                 |
| FCS 217                                               | Curriculum Development & Implementation Age 3 to Gr. 3 | 3                 |
| FCS 220                                               | Assessment of Children & Evaluation of Programs        | 3                 |
| FCS 230                                               | Professionalism                                        | 2                 |
| <b>Concentration Core Curriculum (upper division)</b> |                                                        | <b>21 Credits</b> |
| FCS 302                                               | Emergent Literacy                                      | 3                 |
| FCS 311                                               | Family, Language and Culture                           | 3                 |
| FCS 312                                               | Parent-Child Interactions                              | 3                 |
| FCS 316                                               | Early Childhood Pedagogy & Curriculum                  | 3                 |
| FCS 401                                               | Research in Child Growth, Development and Learning     | 3                 |
| FCS 403                                               | Growth and Development of the Pre-School Child         | 3                 |
| FCS 405                                               | Advanced Caregiving for Infants and Toddlers           | 3                 |
| <b>FCS Electives (upper division)</b>                 |                                                        | <b>24 Credits</b> |
| FCS 304                                               | Growth and Development in Middle Childhood             | 3                 |
| FCS 310                                               | Friends and Intimate Relationships                     | 3                 |
| FCS 313                                               | Family Theories and Contemporary Lifestyles            | 3                 |
| FCS 315                                               | Adolescent Development in the Family                   | 3                 |
| FCS 321                                               | Young Children with Diverse Abilities                  | 3                 |
| FCS 341                                               | Ecological Aspects of Housing                          | 3                 |
| FCS 343                                               | Family Management Theories                             | 3                 |
| FCS 344                                               | Consumer Decisions                                     | 3                 |
| FCS 395                                               | Field Experience I                                     | 3                 |
| FCS 407L                                              | Pre-School Child Lab                                   | 1                 |
| FCS 411                                               | Marriage and Family Life Education                     | 3                 |
| FCS 412                                               | Fathering                                              | 3                 |
| FCS 416                                               | Adult Development in the Family                        | 3                 |
| FCS 443                                               | Application of Family Management Theories              | 3                 |
| <b>Total Professional Courses</b>                     |                                                        | <b>69 Credits</b> |

|                                       |     |
|---------------------------------------|-----|
| Total Credits                         | 120 |
| (including 40 credits upper division) |     |
| FCS Courses                           | 69  |
| Gen Ed Courses                        | 40  |
| Electives                             | 11  |



## General Education Requirements – ECED concentration (Total Credits = 40)

### AREA 1: Writing and Speaking – 9 credit hours

ENGL 110 OR ENGL 111/112 OR 113 AND ENGL 120

Choose 1 additional course from the following: ENGL 219, ENGL 220, CJ 130, PHIL 156, UHON 201

### AREA 2: Mathematics – 3 credit hours (choose one of the following)

STAT 145, Math 129, or Math 215

### AREA 3: Physical and Natural Sciences – 7 credit hours

BIO 110/112L OR BIO 123/124L AND choose 1 additional course from the following:

**ANTH 120:** Arch. Method & Theory

**ANTH 122L:** Req. Lab for ANTH 120 (1cr)

**Pre-Spring 2013 ANTH 121L:** Arch. M&T(4cr)

**ANTH 150:** Evol & Human Emergence

**ANTH 151L:** Opt. Lab for ANTH 150 (1cr)

**ANTH 160:** Human Life Course

**ANTH 161L:** Opt. Lab for ANTH 160 (1cr)

**ASTR 101:** Intro to Astronomy

**ASTR 101L:** Opt. Lab for ASTR 101 (1cr)

**BIOL 110:** Biology for Non-Majors

**BIOL 112:** Opt. Lab for BIOL 110 (1cr)

**CHEM 101:** Chemistry in Our Community

**CHEM 111L:** Elem of General Chemistry (4cr)

**CHEM 121:** General Chemistry I

**CHEM 123L:** Req. Lab for Chem 121 (1cr)

**CHEM 122:** General Chemistry II

**CHEM 124L:** Req. Lab for Chem 122 (1cr)

**CHEM 131L:** (Honors) Gen. Chemistry I (4cr)

**CHEM 132L:** (Honors) Gen. Chemistry II (4cr)

**EPS 101:** Intro to Geology

**EPS 105L:** Opt. Lab for EPS 101 (1cr)

**EPS 201L:** Earth History (4cr)

**ENVS 101:** The Blue Planet

**ENVS 102L:** Opt. Lab for ENVS 101

**GEOG 101:** Physical Geography

**GEOG 105L:** Opt. Lab for GEOG 101 (1cr)

**PHYC 102:** Introduction to Physics

**PHYC 102L:** Opt. Lab for PHYC 102 (1cr)

**PHYC 105:** Physics and Society

**PHYC 151:** General Physics

**PHYC 151L:** Opt. Lab for PHYC 151 (1cr)

**PHYC 152:** General Physics

**PHYC 152L:** Opt Lab for PHYC 152 (1cr)

**PHYC 160:** General Physics

**PHYC 160L:** Opt. Lab for PHYC 160 (1cr)

**PHYC 161:** General Physics

**PHYC 161L:** Opt. Lab for PHYC 161 (1cr)

**\*NTSC 261L:** Physical Science (4cr)

**\*NTSC 262L:** Life Science (4cr)

**\*NTSC 263L:** Environmental Science (4cr)

**UHON 203:** Science in the 21st Century

### AREA 4: Social and Behavioral Sciences – 6 credit hours. Choose 2 courses from the following:

**AFTS / CCS / NATV / SUST / WMST 109:**

Intro to Comparative and Global Ethnic Societies

**AMST 182:** Intro to Env. Sci. & Technology

**AMST 185:** Race, Class & Ethnicity

**ANTH 101:** Intro to Anthropology

**ANTH 130:** Cultures of the World

**PSY 105:** General Psychology

**ECON 105:** Intro to Macroeconomics

**ECON 106:** Intro to Microeconomics

**CRP 181:** Intro to Environmental Problems

**ENG 200:** Technology in Society

**GEOG 102:** Human Geography

**LING 101:** Intro to Linguistics

**POLS 110:** The Political World

**POLS 200:** American Politics

**POLS 220:** Comparative Politics

**POLS 240:** International Politics

**SOC 101:** Intro to Sociology

**UHON 204:** Individual & Collective

### AREA 5: Humanities – 6 credit hours: Choose 2 courses from the following

**AFST 104:** Intro to Africana Studies

Studies

**AMST 186:** Intro to Southwest Studies

**CCS 201:** Intro to Chicana & Chicano Studies

**CLST 107:** Greek Mythology

**CLST 204:** Greek Civilization

**CLST 205:** Roman Civilization

**CLCS 223/224:** Literary Questions

**COMP 222:** Fairy and Folk Tales

**COMP 224:** Literary Questions

**MLNG 101:** Languages

**ENGL 150:** Study of Literature

**ENGL 292/293:** World Literatures

**GEOG 140:** World Regional Geography

**HIST 101/L:** Western Civilization (to 1648)

**HIST 102/L:** Western Civilization (from 1648)

**HIST 161/L:** History of the US to 1877

**HIST 162:** History of the US since 1877

**HIST 181:** History of Early Latin America

**HIST 182:** Modern Latin American History

**NATV 150:** Intro to Native American

**PHIL 101:** Intro to Philosophical Problems

**PHIL 201:** Greek Thought

**PHIL 202:** From Descartes to Kant

**RELG 107:** Living World Religions

**RELG 263:** Eastern Religions

**RELG 264:** Western Religions

**UHON - Honors Legacy Sem, 100-200 level**

**UHON 205:** Humanities Society & Culture

### AREA 6: Foreign Language – 3 credit hours

One course chosen from any lower-division non-English language offerings from the Dept. of Linguistics (including Sign Language), Spanish and Portuguese, Foreign Languages and Literatures, and foreign languages in other depts. and programs (except Latin 105).

### AREA 7: Fine Arts – 3 credit hours required. Choose 1 course from the following:

**ARCH 121:** Intro to Architecture

**Pre-Fall 2010 Arch 101:** Intro to Architecture Appreciation

**ARTH 101:** Intro to Art

**ARTH 201:** History of Art 1

**ARTH 202:** History of Art 2

**DANC 105:** Dance Appreciation

**FA 284:** Experiencing the Arts

**MA 210:** Intro to Film and Study

**MUS 139:** Music Appreciation

**MUS 142:** Rock Music Appreciation

**THEA 105:** Intro to Theatre Appreciation

**Pre-Fall 2010 THEA 122:** Theatre

**UHON 207:** Fine Art as Global Perspective

Any 3 credit hour studio or performance course offered by the Department of Art and Art History, Music, Theatre and Dance, Media Arts or IFDM.

### Additional Requirement - 3 credits hours

NUTR 120 OR 224

[March 22, 2016](#)[January 14, 2016](#)

| [March 22, 2016](#)~~January 14, 2016~~

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| <b>B.S. in Family and Child Studies</b> |
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**Concentration: Early Childhood Multicultural Education PreK –Grade 3 Licensure****Concentration Core Curriculum (lower division) \_\_\_\_\_ 29 Credits**

|          |                                                        |   |
|----------|--------------------------------------------------------|---|
| FCS 101  | Child Growth, Development and Learning                 | 3 |
| FCS 103  | Health, Safety, & Nutrition                            | 2 |
| FCS 111  | Family and Community Collaboration                     | 3 |
| FCS 115  | Guiding Young Children                                 | 3 |
| FCS 117  | Curriculum Development through Play                    | 3 |
| FCS 117L | Curriculum Development through Play Practicum          | 2 |
| FCS 202  | Introduction to Language, Literacy, & Reading          | 3 |
| FCS 217  | Curriculum Development & Implementation Age 3 to Gr. 3 | 3 |
| FCS 217L | Curriculum Development & Implementation Practicum      | 2 |
| FCS 220  | Assessment of Children & Evaluation of Programs        | 3 |
| FCS 230  | Professionalism                                        | 2 |

**Concentration Core Curriculum (upper division) \_\_\_\_\_ 9 Credits**

|         |                                                    |   |
|---------|----------------------------------------------------|---|
| FCS 311 | Family, Language and Culture                       | 3 |
| FCS 321 | Young Children with Diverse Abilities              | 3 |
| FCS 401 | Research in Child Growth, Development and Learning | 3 |

**Pre K to Grade 3 Professional courses (upper division) \_\_\_\_\_ 24 Credits**

|          |                                                            |   |
|----------|------------------------------------------------------------|---|
| FCS 402  | Teaching and Learning Reading and Writing                  | 3 |
| FCS 406  | Teaching and Learning Math and Science                     | 4 |
| FCS 408  | Teaching and Learning Social Studies, Fine Arts & Movement | 3 |
| FCS 417L | Teaching and Learning Practicum                            | 2 |
| FCS 440  | Student Teaching Seminar                                   | 3 |
| FCS 440L | Student Teaching                                           | 9 |

**Concentration Requirements \_\_\_\_\_ 12 Credits**

|          |                                                             |   |
|----------|-------------------------------------------------------------|---|
| LLSS 175 | Foundations of American Indian Education                    | 3 |
| LLSS 453 | Theoretical and Cultural Foundations of Bilingual Education | 3 |
| EDPY472  | Classroom Assessment                                        | 3 |
| FCS 105  | Introduction to Family and Child Studies                    | 3 |

**Total Professional Courses \_\_\_\_\_ 74 Credits**

|                                                        |     |
|--------------------------------------------------------|-----|
| Total Credits<br>(including 40 credits upper division) | 121 |
| Concentration Required Courses                         | 74  |
| Gen Ed Courses                                         | 47  |

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**Family and Child Studies**  
**General Education Requirements – ECME PreK – Grade 3 Licensure**  
**Concentration**  
**(Total Credits = 47)**

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**AREA 1: Writing and Speaking – 9 credit hours**

ENGL 110 OR ENGL 111/112 OR 113 AND ENGL 120

Choose 1 additional course from the following: ENGL 219, ENGL 220, CJ 130,

**AREA 2: Mathematics – 6 credit hours**

STAT 145, Math 215

**AREA 3: Physical and Natural Sciences – 8 credit hours**

NTSC 261L: Physical Science (4cr)

NTSC 262L: Life Science (4cr)

NTSC 263L: Environmental Science (4cr)

**AREA 4: Social and Behavioral Sciences – 9 credit hours. Choose 3 courses from the following:****AFTS / CCS / NATV / SUST / WMST 109:** **ECON 105:** Intro to Macroeconomics**POLS 110:** The Political World**AMST 182:** Intro to Env. Sci. &**CRP 181:** Intro to Environmental**POLS 220:** Comparative**AMST 185:** Race, Class & Ethnicity**ENGF 200:** Technology in Society**POLS 240:** International**ANTH 101:** Intro to Anthropology**GEOG 102:** Human Geography**SOC 101:** Intro to Sociology**ANTH 130:** Cultures of the World**LING 101:** Intro to Linguistics**UHON 204:** Individual &**PSY 105:** General Psychology

Collective

**AREA 5: Humanities – 9 credit hours: Choose 3 courses from the following:****HIST 101/L:** Western Civilization (to 1648) OR **HIST 102/L:** Western Civilization (from 1648)**HIST 161/L:** History of the US to 1877 OR **HIST 162/L:** History of the US since 1877**HIST 260:** History of New Mexico**AREA 6: Foreign Language – 3 credit hours:**

One course chosen from any lower-division non-English language offerings from the Dept. of Linguistics (including Sign Language), Spanish and Portuguese, Foreign Languages and Literatures, and foreign languages in other depts. and programs (except Latin 105).

**AREA 7: Fine Arts – 3 credit hours:****ARTE 214:** Art in the Elementary and Special Education Classroom

**B.A. in Family and Child Studies****(Arts and Sciences Students)****Major: Family and Child Studies (proposed)****FCS Core Curriculum \_\_\_\_\_ 12 Credits**

|         |                                                        |   |
|---------|--------------------------------------------------------|---|
| FCS 105 | Introduction to Family and Child Studies               | 3 |
| FCS 305 | Research and Evaluation in Family and Child Studies    | 3 |
| FCS 481 | Public Policy and Advocacy in Family and Child Studies | 3 |
| FCS 484 | The Sociocultural Context of Children and Families     | 3 |

**Other Required Curriculum \_\_\_\_\_ 12 Credits**

|         |                                   |   |
|---------|-----------------------------------|---|
| FCS 213 | Marriage and Family Relationships | 3 |
| FCS 312 | Parent-Child Interactions         | 3 |
| FCS 343 | Family Management Theories        | 3 |
| FCS 395 | Field Experience                  | 3 |

**Additional FCS Curriculum \_\_\_\_\_ 12 Credits****Total Required Hours \_\_\_\_\_ 36 Credits**


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To fulfill additional 12 FCS credits, take any four courses from the list below:

|         |                                               |   |
|---------|-----------------------------------------------|---|
| FCS 203 | Infant Growth and Development                 | 3 |
| FCS 304 | Growth and Development in Middle Childhood    | 3 |
| FCS 310 | Friends and Intimate Relationships            | 3 |
| FCS 311 | Family Language and Culture                   | 3 |
| FCS 313 | Family Theories and Contemporary Lifestyles   | 3 |
| FCS 315 | Adolescent Development in the Family          | 3 |
| FCS 321 | Young Children with Diverse Abilities         | 3 |
| FCS 341 | Ecological Aspects of Housing                 | 3 |
| FCS 344 | Consumer Decisions                            | 3 |
| FCS 401 | Research in Child Growth, Dev. & Learning     | 3 |
| FCS 403 | Growth and Development of the Preschool Child | 3 |
| FCS 411 | Marriage and Family Life Education            | 3 |
| FCS 412 | Fathering                                     | 3 |
| FCS 416 | Adult Development in the Family               | 3 |
| FCS 443 | Application of Family Management Theories     | 3 |

\* For Minor and General Education Requisites, please consult with your advisor in your College.



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| <b>Family and Child Studies Program</b> |
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**Minor:****Family and Child Studies (proposed)****Family and Child Studies Courses****FCS Core Curriculum** \_\_\_\_\_ **12 Credits**

|         |                                                        |   |
|---------|--------------------------------------------------------|---|
| FCS 105 | Introduction to Family and Child Studies               | 3 |
| FCS 305 | Research and Evaluation in Family and Child Studies    | 3 |
| FCS 481 | Public Policy and Advocacy in Family and Child Studies | 3 |
| FCS 484 | The Sociocultural Context of Children and Families     | 3 |

**Additional Courses** \_\_\_\_\_ **6 Credits**

|         |                                                        |   |
|---------|--------------------------------------------------------|---|
| FCS 202 | Introduction to Language, Literacy, & Reading          | 3 |
| FCS 203 | Infant Growth and Development                          | 3 |
| FCS 213 | Marriage and Family Relationships                      | 3 |
| FCS 217 | Curriculum Development & Implementation Age 3 to Gr. 3 | 3 |
| FCS 220 | Assessment of Children & Evaluation of Programs        | 3 |
| FCS 304 | Growth and Development in Middle Childhood             | 3 |
| FCS 310 | Friends and Intimate Relationships                     | 3 |
| FCS 312 | Parent-Child Interactions                              | 3 |
| FCS 313 | Family Theories and Contemporary Lifestyles            | 3 |
| FCS 315 | Adolescent Development in the Family                   | 3 |
| FCS 316 | Early Childhood Pedagogy & Curriculum                  | 3 |
| FCS 321 | Young Children with Diverse Abilities                  | 3 |
| FCS 341 | Ecological Aspects of Housing                          | 3 |
| FCS 343 | Family Management Theories                             | 3 |
| FCS 344 | Consumer Decisions                                     | 3 |
| FCS 395 | Field Experience                                       | 3 |
| FCS 401 | Research in Child Growth, Development and Learning     | 3 |
| FCS 403 | Growth and Development of the Preschool Child          | 3 |
| FCS 405 | Advanced Caregiving for Infants and Toddlers           | 3 |
| FCS 411 | Marriage and Family Life Education                     | 3 |
| FCS 412 | Fathering                                              | 3 |
| FCS 416 | Adult Development in the Family                        | 3 |
| FCS 443 | Application of Family Management Theories              | 3 |

**Total FCS Required Hours** \_\_\_\_\_ **18 Credits**