

Faculty Senate Meeting Agenda

November 27, 2007, 3:00 P.M.

Lobo Room (3037), Student Union Building

The University of New Mexico

Time	AGENDA TOPICS	TYPE OF ITEMS/ PRESENTER(S)
3:00	1. Approval of Agenda	Action
	2. Acceptance of the October 2007 Summarized Minutes	Action
	3. Faculty Senate President's Report	Information Jackie Hood
3:10	4. Provost's Report	Information Viola Florez
	CONSENT AGENDA TOPICS	
3:20	5. Fall 2007 Degree Candidates	Action Jackie Hood
	6. Forms C from the Curricula Committee	Action Jackie Hood
	New Double Masters Program in MSCompE/MBA, <i>Electrical and Computer Engineering and The Anderson School of Management</i> New Double Masters Program in MSEE/MBA, <i>Electrical and Computer Engineering and The Anderson School of Management</i> Revision of A.S. Degree in Environmental Science, <i>Los Alamos</i> Revision of M.S. Degree, Concentration in Radiation Protection Engineering, <i>Chemical and Nuclear Engineering</i> New Concentration of Medical Physics in M.S. of Nuclear Engineering, <i>Chemical and Nuclear Engineering</i> New Subject Code in Masters of Medical Physics, <i>Biomedical Science</i> Deletion of A.A. in Pre-Professional Secondary Education, <i>Los Alamos</i> Revision of Major in B.S. of Construction Management, <i>Civil Engineering</i> Revision of English Pre-Graduate Concentration, <i>English</i> Deletion of Graduate Degree in Recreation, <i>Health, Exercise and Sports Sciences</i> Deletion of Undergraduate Degree in Recreation, <i>Health, Exercise, and Sports Sciences</i> Revision of Major in B.S. of Chemistry and Chemistry Honors, <i>Chemistry</i>	
	AGENDA TOPICS	
3:25	7. Proposal for two meetings per month beginning with Spring 2008	Action Jackie Hood
3:30	8. Extra Compensation Policies C130 and C140	Action Jackie Hood and Howard Snell

4:00	9. Revised Policy Committee Charge	Action Jackie Hood
4:05	10. Diversity Presentation	Information Rita Martinez Purson
4:20	11. Report from the Faculty Staff Benefits Committee	Information Philip Ganderton
4:27	12. Report from the Campus Development Advisory Committee	Information Bruce Thomson
4:35	13. New Business and Open Discussion	
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.

FACULTY SENATE SUMMARIZED MINUTES

2007-2008 Faculty Senate

October 23, 2007

(DRAFT-AWAITING APPROVAL AT THE NOVEMBER 27, 2007 FACULTY SENATE MEETING)

The Faculty Senate meeting for October 23, 2007 was called to order at 3:00 p.m. in the Lobo Room, Student Union Building (SUB). Senate President Jackie Hood presided.

1. ATTENDANCE

Guests Present:

Assistant Dean Barbara Carver (Graduate Studies), Staff Council Liaison Loyola Chastain, Interim Provost Viola Florez, Executive Vice President David Harris (Administration), Deputy Provost Richard Holder, Sari Krosinsky (UNM Today), Director Raqui Martinez (Faculty Contracts), Associate Vice President Curt Porter (Budget, Planning, and Analysis), Associate Vice President Carlos Romero (Government and Community Relations), and Dean Roger Schluntz (Architecture and Planning).

2. APPROVAL OF THE AGENDA

The agenda was approved with two revisions. Agenda item number five, the Form C revision of the Associate of Science in Environmental Science, has been moved to the November Faculty Senate agenda to allow the Department of Earth and Planetary Sciences time to review the proposed revision. Agenda item number six, Faculty Extra Compensation Task Force Report on Extra Compensation Policies C130 and C140, will be changed to an information and action item to allow for an approval or disapproval vote if the senate is satisfied with the revisions and calls the question.

3. APPROVAL OF SUMMARIZED MINUTES FOR SEPTEMBER 25, 2007 MEETING

The minutes for the September 25, 2007 meeting were approved as written.

4. FACULTY SENATE PRESIDENT'S REPORT

The Faculty Senate President reported on the following:

President Jackie Hood thanked the faculty that participated in the Inauguration of President David J. Schmidly. The installation ceremony was a success. Approximately 160 faculty participated in the installation ceremony. The amount of faculty participation shows strong support for The University of New Mexico and President Schmidly.

President Hood said that she has met with President Schmidly many times since he became president. President Schmidly believes in shared governance. President Schmidly said that faculty are a very important component of the university.

President Hood requests that senators please stay until the senate meeting adjourns at 5:00.

President Hood announced that the senate will begin meeting twice per month in January. The meetings would likely be shorter. It has been suggested that one meeting be for official business and the other meeting would be for discussion, initiatives, new ideas, etc. President Hood asks that senators email Operations Committee members with suggestions and concerns.

President Hood thanked President Elect Howard Snell and Faculty Senator Bob Berrens for assisting Western New Mexico University Faculty Senate President Tom Gruska prepare a faculty salary analysis and presentation for lobbying the state legislature.

5. PROVOST'S UPDATE

Interim Provost Viola Florez was unavailable at the scheduled time of her update. Provost Florez will be invited to present an update at the November 27 Faculty Senate Meeting.

CONSENT AGENDA

6. APPROVAL OF FORMS C FROM THE CURRICULA COMMITTEE

The following Forms C were approved by unanimous voice vote of the Faculty Senate with two abstentions:

- Revision of B.S. Degree in Physical Education, College of Education
- Revision of Graduate Concentration in Anthropology, College of Arts and Sciences
- New Concentration in Post Masters Certificate in Program Management, Anderson School of Management

AGENDA TOPICS

7. FACULTY EXTRA COMPENSATION TASK FORCE REPORT ON EXTRA COMPENSATION POLICIES C130 AND C140.

Extra Compensation Task Force member and Faculty Senate Past President Virginia Shipman provided the history behind the task force. The Board of Regents asked the Operations Committee to review the Anderson School of Management audit. The 2006-2007 Operations Committee suggested a task force be constituted to review Policies C130 and C140.

The task force members are: Senior Advisor to the President Breda Bova (Office of the President), Regent Don Chalmers, Director Christine Chavez (Internal Audit), Deputy Provost Richard Holder (Academic Affairs), Associate Dean Mike Norwood (School of Law), Interim Dean Vera Norwood (College of Arts and Sciences), Professor Tim Ross (Civil Engineering), Professor Virginia Shipman (Individual, Family, and Community Education), Senior Associate Dean Laurie Schatzberg (Anderson School of Management), Interim Associate Dean Jane Slaughter (College of Arts and Sciences), Professor Bruce Williams (Internal Medicine-Infectious Diseases), and Deputy Executive Vice President of Health Sciences John Trotter (Health Sciences Center).

The task force reviewed full policies from 26 public and private universities near UNM. Most of those universities' policies do not define what a work day is and what a work week is.

The 2007-2008 Operations Committee has reviewed the task force's proposed policies and has suggested revisions. President Elect Howard Snell presented the Operations Committee's revised versions of C130 and C140 separately.

C130

There was much discussion on policy C130. Some senators expressed concern about the definition of the workweek and the workday. Other senators stated that the policy does not apply to North Campus. A senator asked who defines renumarated scholarships.

In order to move onto C140 the senate voted unanimously with two abstentions to table policy C130 until the November Faculty Senate meeting to allow for further discussion and revision.

C140

Policy C140 with the revisions from the Operations Committee was unanimously passed by the senate. There were two abstentions. Policy C140 will be forwarded to the task force.

An outside consulting firm will be hired by the BOR to review the revisions. The consultants will be chosen by the Provost and the Operations Committee. President Schmidly recommends that the changes, if any, from the consultants go before the senate again. The senate will review the Operations Committee version of C130 at the November 27 senate meeting.

8. PROPOSED POLICY COMMITTEE CHARGE

President Jackie Hood presented the proposed charge for a Policy Committee of the Faculty Senate. The Policy Committee would actively look at current and proposed policies. Another task of the committee is to define the process of approval for policy changes. The senate approved the following charge with one friendly amendment. The committee composition was modified to specify that at least three schools or colleges, including the HSC, would be represented. The vote was passed with one abstention and one opposed.

Faculty Senate Policy Committee Charge

The primary role of the Policy Committee shall be to support the University's overall purpose, principles, and goals. In the interest of shared governance, the functions of the committee shall include, but not be limited to initiating, formulating, recommending, and reviewing all policies of the University that impact the faculty. The charge to this committee is as follows:

- Review, as necessary, policies of the Regents' Handbook, Faculty Handbook, Constitution, University Business Policies and Procedures, and the Pathfinder;
- Consult and collaborate with administrators with respect to policies in documents other than in the Faculty Handbook;
- Communication of policies across the campuses after Faculty Senate approval, full faculty approval, or as per policy history; and
- Review and approve policies developed by other standing committees.

The Policy Committee membership will be comprised of seven voting faculty (from at least three schools and colleges including the Health Sciences Center and none of whom are from the same department). At the committee's request, an attorney from the University Counsel's office with primary responsibilities for policy issues shall attend committee meetings and provide legal advice to the Policy Committee. The terms of office shall be for three years, set up on a staggered basis so that the terms of at least three members will expire each year. Members can be appointed for a second three-year term. The chair is elected by the Committee and normally will serve a renewable two-year term. The Committee annually selects a Vice-Chair to serve in place of the chair in his/her absence. In addition to the Committee members, subcommittee membership will be augmented with other faculty, administrators, staff, and students as required for specific subcommittee tasks.

9. ENDOWED FACULTY APPOINTMENTS

President Jackie Hood presented the proposed resolution on Endowed Faculty Appointments. After little discussion the resolution was unanimously passed.

RESOLUTION ON ENDOWED FACULTY APPOINTMENTS

WHEREAS, the Faculty Senate has been delegated the responsibilities of the University faculty as set forth in Sec. 2 of the Faculty Constitution, and

WHEREAS, such responsibilities include the: formulation of institutional goals, creation of academic units, curriculum, scholastic performance, policies regarding academic rank, research, and general faculty welfare, and

WHEREAS, an endowed faculty appointment is an honor that can be bestowed on a scholar of distinction, and

WHEREAS, this honor will allow an individual to conduct meaningful inquiry that will expand the frontiers of knowledge and instruct generations and as a result the reputation of the University will be enhanced, and

WHEREAS, an endowed faculty appointment is a singular opportunity to recognize and sustain innovative intellectual work, and

WHEREAS, in creating an endowed fund, an individual, group or corporate entity makes a donation at the University-designated level that provides for the corpus of the fund from which annual payments are generated, and

WHEREAS, the policy for search committee membership for endowed faculty appointment searches is not explicit,

THEREFORE, be it resolved that the Faculty Senate of UNM requests that the Provost and Executive Vice President for Administration develop a policy on faculty appointments for endowed positions that explicitly states that the voting members of the search committee be composed entirely of academic faculty from this or other noted universities chosen by the faculty in the recipient Department in collaboration with the appropriate Dean.

10. REPORT FROM THE CURRICULA COMMITTEE

Curriculum Committee Chair Kathleen Keating (University Libraries) provided a brief summary of the committee. The committee is comprised of 15 members from different schools and colleges and one each from the branch campuses. The committee reviews all Forms A, B, and C. The committee works closely with the Undergraduate Committee and the Graduate Committee. The committee has reviewed 600-800 different curricular changes. The committee also reviews academic programs. Two other issues that the Curricula Committee is currently working on is diversity issues for diversity core courses and fractionalized credit hours. Branches are considering offering courses in 0.5 credit increments especially for weekend seminars.

11. REPORT FROM THE RESEARCH POLICY COMMITTEE

Research Policy Committee Chair Dan Barkley (University Libraries) provided a brief summary of the committee. Associate Professor Dan Barkley is in his second year as chair of the committee. The committee has not done much although there is much work that needs to be completed. Chairman Barkley asked that the Research Policy Committee get to review any policies that may affect research.

The Intellectual Property Policy is outdated. There is a new subcommittee of the Research Policy Committee chaired by Associate Professor Craig White (Anderson School of Management) that will be presenting a draft of a revised Intellectual Property Policy. Professor Barkley hopes to have a version for discussion by the Faculty Senate by the end of the Fall 2007 semester. The new policy will serve the senate, the overall faculty, and the administration.

The Research Policy Committee is working on certification as the university has been out of compliance.

The Vice President for Research and Economic Development has not had a budget for a number of years. Associate Professor Timothy Graham of the Research Policy Committee is on the Research Study Group. One goal is transparency.

12. REPORT FROM THE UNDERGRADUATE COMMITTEE

Undergraduate Committee Chair Andrew Burgess (Philosophy) provided a brief summary of the committee. The committee meets two times per month. The committee looks at policies that involve undergraduate education. The Thursday meeting of the Undergraduate Committee addresses curricular issues. The Friday meeting of the Undergraduate Committee addresses undergraduate issues. The committee also participates in undergraduate program reviews.

Professor Burgess voiced concerns:

1. The Associated Students of the University of New Mexico (ASUNM) has not appointed students to any of the senate committees including the Undergraduate Committee with the exception of the Athletic Council.
2. Two-thirds of undergraduate course hours are offered through the College of Arts and Sciences. The college meeting has been canceled and the undergraduate issues are not being addressed.
3. The committee structure is disconnected from the senate. Robert's Rules state that work is to be done in the committees.

13. NEW BUSINESS

A senator commented that the recommendations from the Research Study Group are slow to be implemented. The current process is not what was hoped for. The Office of Research and Economic Development is being internally audited. There have been several critical hires. There are also more issues to deal with other than budget. The senator said that it is encouraging that Senior Associate Vice President Jack McIver (Research and Economic Development) is pushing for change.

14. ADJOURNMENT

The meeting was adjourned at 5:10 p.m.

Respectfully submitted,

Rick Holmes
Office of the Secretary

Faculty Senate Attendance 2007-2008

P - present; E - excused; U - unexcused; R - rep in attendance; H - attended half of the meeting

Full Name	Department	8/28	9/25	10/23	11/27	1/22	2/26	3/25	4/22		Comments
Jonathan Abrams	Internal Medicine	P	U	U							
Margaret Alba	Pathology	P	P	P							
Leah Albers	Nursing	P	P	U							
Robert Berrens	Economics	P	P	E							
Steven Block	Music	E	P	P							
Jonathan Brinkerhoff	Teacher Education	P	P	U							
Steve Cabaniss	Chemistry	P	P	P							
Mark Childs	Architecture and Planning	P	P	P							
Gary Cuttrell	Surgery	P	P	E							
Dennis Davies Wilson	Los Alamos	P	P	P							
Ed DeSantis	University Honors	P	P	P							
Lily Dow y Garcia Velarde	Family & Community Medicine	E	X	X	X	X	X	X	X		Resigned 9/24/07.
Santa Falcone	School of Public Administration	X	P	P							Replaces Constantine Hadjilambrinos
Douglas Fields	Physics and Astronomy	P	P	P							
Aaron Fry	Art and Art History	P	P	P							
Kimberly Gauderman	History	P	P	P							
Patricia Gillikin	Valencia	P	U								
Larry Gorbet	Anthropology	P	P	P							
David Graeber	Psychiatry	U	U	U							
Joy Griffin	Physical Performance & Development	P	P	P							
Burke Gurney	Orthopaedics	E	E	P							
Renee Barela Gutierrez	UNM Taos	X	P	U							Joined 9/25/07
Constantine Hadjilambrinos	School of Public Administration	U	X	X	X	X	X	X	X		Resigned 9/19/07.
Steve Hersee	Electrical and Computer Engineering	P	P	P		X	X	X	X		Replaces Sanjay Krishna for Fall
Deirdre Hill	Internal Medicine	P	P	E							
Jackie Hood	Organizational Studies	P	P	P							
Kerry Howe	Civil Engineering	P	P	P							
Diana Huffaker	CHTM	U	U	U							

Robert Ibarra	Sociology	P	P	P							
Peter Ives	University Libraries	P	P	P							
Donna Jewell	Theatre and Dance	U	U	U							
Anne Jones	Family & Comm Medicine	P	P	E							
Kathy Jutila	Internal Medicine	U	U	U							
Victoria Kauffman	Mathematics & Statistics	P	P	U							
Denece Kesler	Internal Medicine	P	P	P							
Richard Kitchen	Education Specialties	U	U	U							
Sanjay Krishna	Electrical and Computer Engineering	X	X	X	X						On Sabbatical Fall 2007
Jeanne Logsdon	Organizational Studies	P	P	P							
Pamela Lutgen-Sandvik	Communication and Journalism	P	P	U							
Chris McGrew	Orthopaedics	U	U	U							
Martha Miller	Pediatrics	U	E	P							
Roxana Moreno	Ind, Fam, & Comm Ed	U	U	U							
Carol Parker	Law	U	P	P							
Linda Penaloza	Pediatrics	P	P	E							
Steven Peterson	Pharmacy	P	U	P							
Stefan Posse	Psychiatry	E	P	P							
Mary Power	English	P	P	P							
Arti Prasad	Internal Medicine	U	U	U							
Pamela Pyle	Fine Arts	P	P	P							
Timothy Ross	Civil Engineering	P	E	P							
Katja Schroeter	Foreign Languages & Literatures	E	P	P							
Retu Saxena	Internal Medicine	U	U	U							
Zachary Sharp	Earth and Planetary Sciences	P	P	P							
Virginia Shipman	Individual, Family and Community Education	P	P	P							
Howard Snell	Biology	P	P	P							
Victor Strasburger	Pediatrics	P	E	E							
Akaysha Tang	Psychology	P	P	U							
Maria Terry	Surgery	U	U	U							
Luis Vargas	Psychiatry	P	U	P							
Gerald Vizenor	American Studies	E	P	P							

Gautam Vora	Fin Intl Tech Management	P	P	P							
Tom White	Family and Community Medicine	P	U	U							
Teresa Wilkins	Gallup Branch	U	U	U							
John Wills	Anesthesiology	U	U	U							
Said Yassin	Surgery	P	E	E							

FORM C - DEGREE/PROGRAM CHANGE

Date: 11/16/06

Andres C. Salazar

(Name of individual initiating curricular change form)

Prof. & PNM Chair - ECE/ASM

(Title, position, telephone number)

asalazar@unm.edu

(Email address)

ECE Dept (SOE) & ASM

(Department/Division/Program/Branch)

Mark appropriate Program:

Undergraduate Degree Program ☐

Graduate Degree Program ☒

(For existing degree only)

Mark appropriate category:

NEW

REVISION OF

DELETION

NAME CHANGE

Degree MSCompE/MBA
Type

☐ Undergraduate
degree only

Major ☐

Minor ☐

Concentration ☐

Certificate ☐

Emphasis ☐

Department ☐

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*See New Units policy Guidelines book
available from the Provost's Office.

Give exact title and requirements as they should appear in the catalog. See current catalog for format within the respective college (attach additional sheets if necessary). Identify in bracket form what is being changed.

Double Master's Program - MSCompE and MBA (see attached insert for page 427 of UNM Catalog)

Reason(s) for Request (attach additional sheets if necessary).

Initiate Double Master's Program

Attach statements to address Budgetary and Faculty Load Implications and Long-range planning.

Does this change affect in a significant way, any other departmental programs/branch campuses? Yes ☐ No ☒

If yes, have you resolved these issues with department/branch involved? (attach statement)

Effective Date of Proposed Change: Fall 2007
Semester Year

Required Signatures:

ECE Department Chairperson

ASM College Curriculum Committee

College or School Faculty (if necessary)

ASM College or School Dean/Dean of Instruction

Office of the Registrar—Catalog

Director of relevant Library

CIRT (if necessary)

FS Graduate Committee (graduate courses)

FS Undergraduate Committee (undergraduate courses)

FS Curriculum Committee

Assoc. Provost for Academic Affairs

Faculty Senate

Board of Regents

Date 12/14/06
Date Dec. 11, 2006
Date 12/11/06
Date 08/04/07
Date
Date 9/4/07
Date
Date 10-5-07
Date 11/10/07
Date
Date

THE UNIVERSITY OF NEW MEXICO OFFICE OF THE REGISTRAR (Revised 9/2004)

CIP CODE

UNIT PREPARES IN QUADRUPLICATE

Routing (All four copies)

1. College Curriculum Committee
2. College or School Faculty (if necessary)
3. College or School Dean/Dean of Instruction
4. Office of the Registrar—Catalog
5. Director of relevant Library
6. CIRT (if necessary)
7. FS Graduate Committee (graduate courses)
8. FS Undergraduate Committee (undergraduate courses)
9. FS Curriculum Committee
10. Assoc. Provost for Academic Affairs
11. Faculty Senate

* Plan for curricular process to take at least 12 months.

This form is for Double Master's Program - MSCompE/MBA

Name of New or Existing Program

This program is or would be located in current undergraduate/graduate catalog

on page(s) 427

Received

Entered (Mainframe)

Entered (Catalog)

Mailed

For Scheduling Office ONLY:

Figure 2: For the non 3-2MBA Student:

To complete MBA:

Requirements:

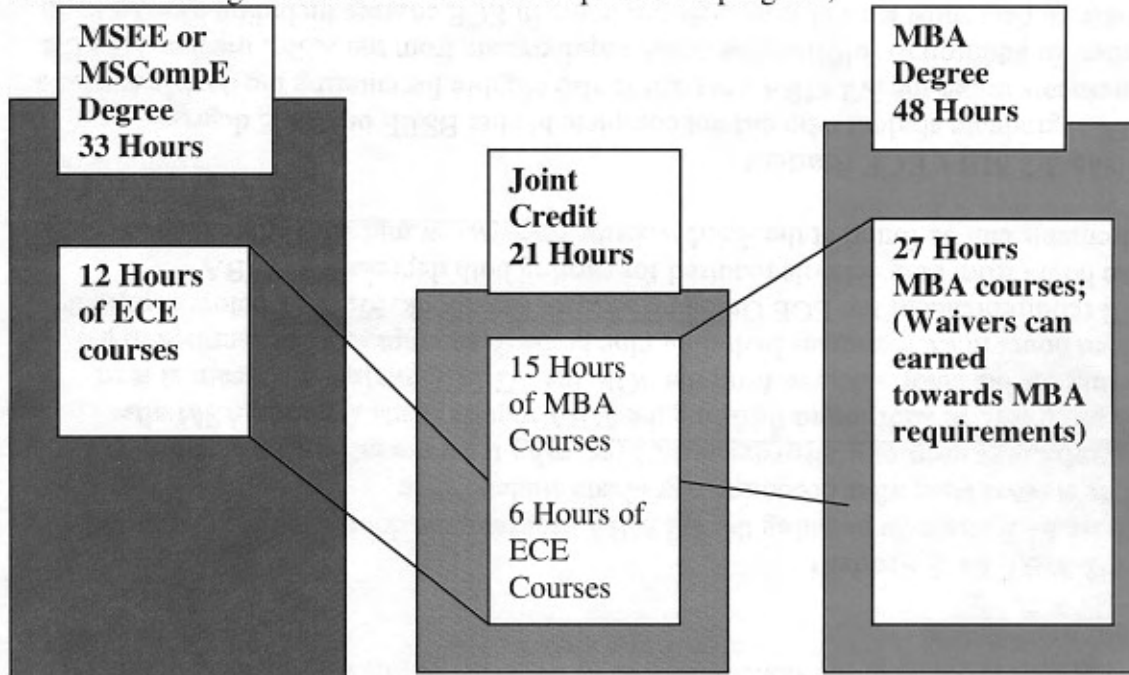
- 30 hours in core MBA curriculum (MGT501, 502, 504, 506, 508, 511, 520, 522, 526, 598, excluding waivers)
- 12 additional hours in elective MBA courses
- Maximum of 6 hours (ECE) outside ASM
- 48 MBA hours total.

To complete MSEE or MSCompE:

Requirements (See ECE Graduate Handbook for Plan II requirement details):

- 18 hours in ECE courses (9 hours in area, max. of 6 hours at 400 level)
- 15 hours of MBA courses

33 hours total in graduate MSEE or MSCompE Plan II program;



Double Master's MSEE and MBA from UNM for non-3-2MBA student:

MSEE Student: This means **27 extra hours** must be earned to obtain the MBA degree for a total of 60 semester hours. (Waivers can be earned for ECE340, ECON300 and other courses taken during undergraduate/graduate programs)

MBA Student: This means **12 extra hours** must be earned to obtain the MSEE degree for a total of 60 semester hours.

Webpage contents of http://mba.mgt.unm.edu/altprograms/msece_mba

Double Master's Program – MBA and MS in EE or CompE

This dual degree program leading to an MBA and an MSEE (or MSCE) is aimed at electrical or computer engineering graduate students who have interest in a career that requires graduate level training in both business and electrical or computer engineering. The main advantage of a dual degree program is that it minimizes the time, expense and coursework for earning both graduate degrees, one from the School of Engineering (SOE) and the other from the Anderson Schools of Management (ASM). The advantage is realized by "sharing" courses between the two degrees as stipulated in the program. A requirement of a dual degree program is that both degrees must be earned and granted simultaneously. Hence, one degree is not awarded even if its requirements are fulfilled. Withdrawal from the program entails an application to "restart" down a path that leads to the completion of degree the student desires. In some cases, this may mean additional course requirements.

The 3/2 MBA ECE Student

For those ECE students pursuing the 3/2 MBA program, the double master's program must be entered soon after becoming a graduate student. (See http://mba.mgt.unm.edu/altprograms/32ece_mba for more information on the 3/2 MBA program). In addition to fulfilling the MBA requirements from the ASM after receiving the bachelor's degree from the SOE, the 3/2 ECE student must earn at least eighteen hours in ECE courses including nine hours in an emphasis as described in the Plan II requirements of the ECE Graduate Student Handbook. Figure 1 below depicts the course hours from both schools required for earning both degrees. The MBA requirements can be found at the ASM website: <http://www.mgt.unm.edu>.

The Non 3/2 MBA ECE Student

The ECE graduate student who did not complete his/her BSEE or BSCE degree requirements under the 3/2 MBA program is also eligible for entering the double master's program. In addition to fulfilling the MBA requirements from the ASM, the non 3/2 ECE graduate student must earn at least eighteen hours in ECE courses including nine hours in an emphasis as described in the Plan II requirements of the ECE Graduate Student Handbook. Figure 2 below depicts the course hours from both ASM and SOE required for earning both degrees. The MBA requirements can be found at the ASM website: <http://www.mgt.unm.edu>.

CompE BS Curriculum Years 3-4		Hrs	Comment
First Semester - Yr 3 (16 hrs)			
ECE321 Electronics I		3	
ECE338 Intermediate Logic Design		3	
Math327 Discrete Math		3	
ECE344L Microprocess		4	
ECON300 Int. Microeconomics		3	Taken as Social/Behav. Sci Elective

Second Semester - Yr 3 (17 hrs)			
ECE 322 Electronics II		3	
ECE327L Electronics Lab		2	
ECE337L Computer Organization		3	
ECE331 Data Structure & Algorithm		3	
ECE 314 Signals and Comm		3	
ECE340 Probabilistic Methods		3	Taken as MGT501 Substitute

First Semester - Yr 4 (18 hrs)			
ECE435 Com. Engr Design Proj		3	
ECE437 Operating Systems		3	
ECE438 Design of Comp.		3	
MGT506 (Organiz Behavior & Diversity)		3	Taken as Track Elective
MGT511 (Tech. Comm & Global Env)		3	Taken as Track Elective
Core Humanities Elective		3	

Second Semester - Yr 4 (17 hrs)			
ECE440 Computer Networks		3	
ECE447: Comp. Design Lab		2	
Core 2nd Lang Elective		3	
MGT502 (Fin Accounting I)		3	Taken as a Track Elective
MGT508 (Ethical, Political, Social, Legal Env)		3	Replaces ECE409 Engr Ethics
Core Fine Arts Elective		3	

First Semester - Yr 5 (18 hrs)			
MGT526 (Financial Management)		3	
MGT522 (Marketing Management)		3	
MGT5uu		3	
MGT5ww		3	
MGT5xx		3	
ECE Elect		3	

Second Semester - Yr 5 (15hrs)			
MGT520 (Operations & Production Mgmt)		3	
MGT598 (Strategic Management)		3	
MGT5yy		3	
MGT5zz		3	
ECE Elect		3	

3-2 MBA Program for Engineering

For Engineering Undergraduates Interested in Supplementary Business Training

For more information contact:

For ASM Admission Policy:

Mary Berger –
Sr. Academic Advisor for MBA Programs
UNM Anderson Schools of Management
Room 2051
505-277-3147
berger@mgt.unm.edu

For ECE undergraduate consultation:

Roberta Menicucci
ECE Undergraduate Academic Advisor
505-277-1435
rmenicucci@ece.unm.edu

This program is ideally suited for those engineers who have little interest in pursuing a "research" career path but would rather start a career that would lead to a job in project management, management of technical development, or technical advisory services. Further, engineers who aspire to "start" their own company or join an entrepreneurial team may also find such a 3-2 MBA program can maximize their chances for success in such a venture. The goal of the 3-2 MBA program for engineering is to have School of Engineering (SOE) undergraduates receive their Baccalaureate degree in engineering in four years and then complete the remaining Anderson Schools of Management (ASM) requirements for an MBA during a fifth year of study. The program requires completion of several optional ASM courses during the undergraduate engineering program and earning "dual" credit for several required courses that count towards both the SOE and ASM degrees.

The UNM Anderson Schools of Management has an existing 3-2 MBA program for any undergraduate who essentially "minors" in business. However, few

engineering undergraduates take advantage of this program because the UNM engineering curricula from various School of Engineering (SOE) departments do not allow room for a "minor" in business courses. However, several SOE departments do have "business" related courses in the required curriculum for an undergraduate degree. Namely, Economics, Ethics and Statistics are often found in the required curriculum.

The ECE department in the UNM SOE has already approved a 3-2MBA program for its undergraduates. Attached are the suggested curricula to be followed by interested ECE undergraduates who wish to complete the program in five years and attain both a BSEE from SOE and an MBA from ASM. Please see the ECE undergraduate advisor for any updates on the program. The ECE department believes that the program will respond to what appears to be a critically needed skill set in industry. The goal of the approved program is to achieve 18 hours of "business" coursework in the ECE undergraduate curriculum. Six hours can be achieved by substituting ASM courses in economics and ethics for those required in the ECE curriculum and currently taught within SOE. Three hours of probability and statistics taken in engineering (ECE340) will earn a waiver of 3 hours of a similar ASM course in statistics (MGT501). Nine additional hours would be accomplished by accepting ASM graduate courses to be taken within an ECE "track." This path towards 18 ASM credit hours is outlined in the EE and CE curricula shown in the following pages.

Important Events/Dates:

1. The GMAT exam must be taken by a student before admission to 3-2 program at ASM. The fee is \$250 and is generally administered daily by a local testing service. (see www.mba.com for schedule, location, sample questions and times)
2. ASM admission deadline for the fall semester is June 1. Admission is denied to those students who have NOT taken the GMAT exam by June 1. Registration as a 3-2 student is also required with the ECE undergraduate advisor.

EE BS Curriculum Years 3-4		Hrs	Comment
Course			
First Semester - Yr 3 (17hrs)			
ECE371 Matrl/Devices		4	
ECE321 Electronics I		3	
ECE344L Microprocess		4	
ECE314 Sig & Comm		3	
Core Humanities Elective		3	
Second Semester - Yr 3 (17hrs)			
ECE340 Probabilistic Methods		3	Taken as MGT501 Substitute
ECE 322 Electronics II		3	
ECE327L Electronics Lab		2	
ECE360 ElectroFlds & Waves		3	
Core 2nd Lang Elective		3	
Core Humanities Elective		3	
First Semester - Yr 4 (15hrs)			
ECE419L Sr. Design I		3	
ECE445 Intro Cont Sys		3	
ECON300		3	MGT504 Substitute, Replaces ME35
MGT506 Organiz. Beh & Diversity		3	Taken as EECE Track Elective
MGT511 Tech Comm & Global Env.		3	Taken as EECE Track Elective
Second Semester - Yr 4 (18hrs)			
ECE420L Sr Design II		3	
ECE441 Intro to Comm Sys		3	
ECE Track Elective		3	
MGT502 Financial Acctg		3	Taken as a EECE Track Elective
MGT508 Ethical, Political, Social & Legal Env		3	Replaces EECE409 Engr Ethics
Core Fine Arts Elective		3	
First Semester - Yr 5 (18hrs)			
MGT526 (Financial Management)		3	
MGT522 (Marketing Management)		3	
MGT5uu		3	
MGT5ww		3	
MGT5xx		3	
ECE Elect		3	
Second Semester - Yr 5 (15hrs)			
MGT520 (Operations & Production Mgmt)		3	
MGT598 (Strategic Management)		3	
MGT5yy		3	
MGT5zz		3	
ECE Elect		3	

FORM C - DEGREE/PROGRAM CHANGE

CIP CODE

Date: 11/16/06Andres C. Salazar

(Name of individual initiating curricular change form)

Prof. & PNM Chair - ECE/ASM

(Title, position, telephone number)

asalazar@unm.edu

(Email address)

ECE Dept (SOE) & ASM

(Department/Division/Program/Branch)

Mark appropriate Program:

Undergraduate Degree Program ☐Graduate Degree Program
(For existing degree only) ☒

Mark appropriate category:

NEW

REVISION OF

DELETION

NAME CHANGE

Degree MSEE/MBA

Type

☐ Undergraduate
degree onlyMajor ☐Minor ☐Concentration ☐Certificate ☐Emphasis ☐Department ☐

NA

*See New Units policy Guidelines book
available from the Provost's Office.

Give exact title and requirements as they should appear in the catalog. See current catalog for format within the respective college (attach additional sheets if necessary). Identify in bracket form what is being changed.

Double Master's Program - MSEE and MBA (see attached insert for page 427 of UNM Catalog)

Reason(s) for Request (attach additional sheets if necessary).

Initiate Double Master's Program

Attach statements to address Budgetary and Faculty Load Implications and Long-range planning.

Does this change affect in a significant way, any other departmental programs/branch campuses? Yes ☐ No ☒

If yes, have you resolved these issues with department/branch involved? (attach statement)

Effective Date of Proposed Change: Fall, 2007
Semester Year

Required Signatures:

ECE Department Chairperson [Signature] Date 12/14/06ASM College Curriculum Committee [Signature] Date Dec 11, 2006College or School Faculty (if necessary) [Signature] Date 12/11/06ASM College or School Dean/Dean of Instruction [Signature] Date 08/04/07Office of the Registrar—Catalog [Signature] Date 10-5-07Director of relevant Library [Signature] Date 11/10/07CIRT (if necessary) [Signature] Date 9/4/02FS Graduate Committee (graduate courses) [Signature] Date 10-5-07FS Undergraduate Committee (undergraduate courses) [Signature] Date 11/10/07FS Curriculum Committee [Signature] Date 11/10/07Assoc. Provost for Academic Affairs [Signature] Date 11/10/07Faculty Senate [Signature] Date 11/10/07Board of Regents [Signature] Date 11/10/07

UNIT PREPARES IN QUADRUPPLICATE

Routing (All four copies)

1. College Curriculum Committee
2. College or School Faculty (if necessary)
3. College or School Dean/Dean of Instruction
4. Office of the Registrar—Catalog
5. Director of relevant Library
6. CIRT (if necessary)
7. FS Graduate Committee (graduate courses)
8. FS Undergraduate Committee (undergraduate courses)
9. FS Curriculum Committee
10. Assoc. Provost for Academic Affairs
11. Faculty Senate

* Plan for curricular process to take at least 12 months.

This form is for Double Master's Program - MSEE/MBA

Name of New or Existing Program

This program is or would be located in current undergraduate/graduate catalog

on page(s) 427

Received

Entered (Mainframe)

Entered (Catalog)

Mailed

Figure 1: Student in 3-2 Program:

Upon Receiving BSECE has taken 18 hours of core courses in MBA program:

- MGT 501 (Stat) – Taken as ECE340 equivalent
- MGT 502 (Accounting) – Taken in senior year
- MGT 504 (Micro-econ) – Taken ECON 300 in junior year.
- MGT 506 (Organiz. Beh.) – Taken in senior year
- MGT 508 (Ethics) – Taken in senior year
- MGT 511 (Tech Comm) – Taken in senior year.

18 Hours

To complete MBA:

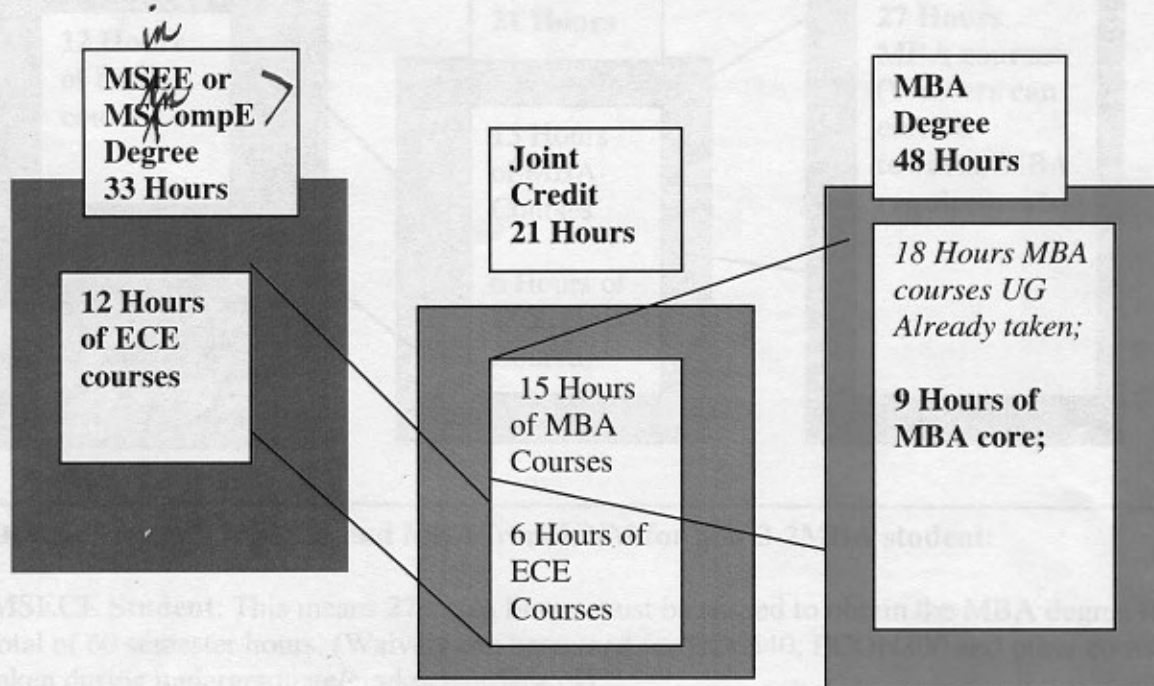
Requirements:

- a) 12 additional hours in core MBA curriculum (MGT520,522,526,598)
- b) 12 additional hours in elective MBA courses
- c) Maximum of 6 hours (ECE) outside ASM
- d) 48 MBA curriculum hours total.

To complete MSEE:

Requirements (See ECE Graduate Handbook for Plan II requirement details):

- a) 18 hours in ECE courses (9 hours in area, max. of 6 hours at 400 level)
- b) 15 hours of MBA courses
- c) 33 hours total in graduate MSEE or MSCompE Plan II program;



Double Master's MSEE (or MSCompE) and MBA from UNM for 3-2MBA student:

MSEE (or MSCompE) Student: This means **9 extra hours** must be taken to obtain the MBA degree for a total of 42 semester hours.

MBA Student: This means **12 extra hours** must be taken to obtain the MSEE (or MSCompE) degree for a total of 42 semester hours.

Double Master's Program - MSEE (or MSCompE) and MBA

Figure 2: For the non 3-2MBA Student:

To complete MBA:

Requirements:

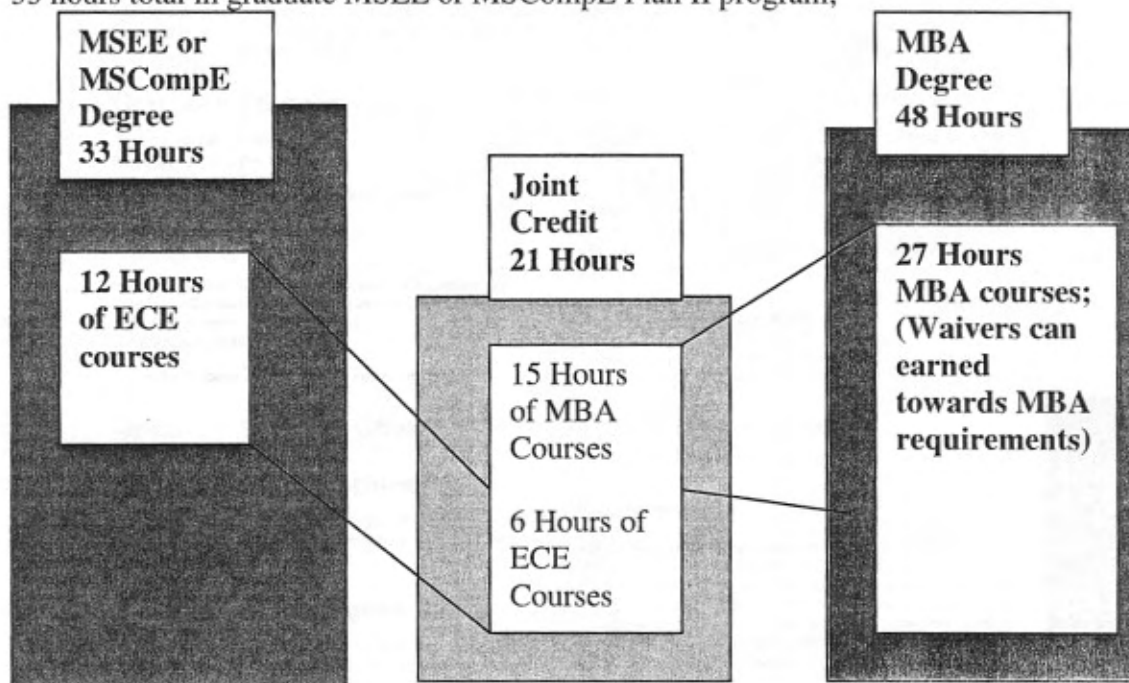
- a) 30 hours in core MBA curriculum (MGT501, 502, 504, 506, 508, 511, 520, 522, 526, 598, excluding waivers)
- b) 12 additional hours in elective MBA courses
- c) Maximum of 6 hours (ECE) outside ASM
- d) 48 MBA hours total.

To complete MSEE or MSCompE:

Requirements (See ECE Graduate Handbook for Plan II requirement details):

- a) 18 hours in ECE courses (9 hours in area, max. of 6 hours at 400 level)
- b) 15 hours of MBA courses

33 hours total in graduate MSEE or MSCompE Plan II program;



Double Master's MSEE and MBA from UNM for non-3-2MBA student:

MSEE Student: This means **27 extra hours** must be earned to obtain the MBA degree for a total of 60 semester hours. (Waivers can be earned for ECE340, ECON300 and other courses taken during undergraduate/graduate programs)

MBA Student: This means **12 extra hours** must be earned to obtain the MSEE degree for a total of 60 semester hours.

of the year. It is also possible to participate in programs in which the student has a mixture of part-time engineering employment and part-time study. Because almost all courses required for both degree programs are offered in each of the fall and spring semesters, the department offers a firm base for both cooperative education and part-time study. Both the Electrical and Computer Engineering programs require a minimum grade point average of 2.50 to participate in the co-op program. See appropriate entry in this catalog in the School of Engineering, Co-op section.

Honors Program

Students with a B+ average (3.20 degree GPA) in the Department of Electrical and Computer Engineering are encouraged to enroll in the Honors Program. ECE students may graduate with General Honors (honors in general studies) or with Departmental Honors or with both. Information is available from University College advisors, departmental advisors and the University Honors Center.

Graduate Program

Director of Graduate Studies
Professor W. Wennie Shu

Application Deadlines for Domestic Students:

Fall semester: July 15
Spring semester: November 15
Summer semester: April 15

Application Deadlines for International Students and Domestic Students Requesting Financial Aid:

Fall semester: February 15
Spring semester: June 15

NOTE: Early application is recommended.

Graduate Degrees Offered

M.S. in Computer Engineering

Areas of study are: computer design, architecture and VLSI design, computer networks and systems, image processing, and computational intelligence.

M.S. in Electrical Engineering

Areas of study are: systems and controls, signal processing, communications, optoelectronics, applied electromagnetics and microelectronics.

Master of Engineering

Concentration: Manufacturing Engineering.

At the M.S. level, a student interested in Manufacturing Engineering has two options. The M.S. in ECE with a Manufacturing option requires 36 semester credit hours and a three month industrial internship in a manufacturing setting. Half the courses in this program are manufacturing engineering courses and half are ECE courses, three of which are the core courses from one of the EE areas (tracks). The Master of Engineering in Manufacturing Engineering degree requires 36 semester credit hours and a 3-month industrial internship in a manufacturing setting. Tracks available in this program are in Computer-Integrated Manufacturing, Mechanical and Equipment Manufacturing, and Semiconductor and Electronics Manufacturing. For any track, at least four electives must be selected from a set of track courses defined by the Manufacturing Engineering Program. See Curricula for the M.Eng. degree in Manufacturing Engineering.

M.S. in Optical Science and Engineering

Areas of Study: Ultrafast optics and photonics, laser physics and engineering, optical imaging, quantum optics, optoelectronic devices, fiber lasers and amplifiers, optical communication, optical materials, optical lithography, integrated optics, and quantum computing.

Administered jointly by the Departments of Physics and Astronomy and Electrical and Computer Engineering, the program features an internship option under which a student can apply qualified industrial/government laboratory research credit along with successfully completed standard course work toward the degree. Under Plan I (thesis-based), a minimum of 24 hours of course work and 6 hours of thesis credit (599) is required. Under Plan II(a) (standard course-based), a minimum of 33 hours of course work, including 3 hours of research seminar (PHYC 500) or problems course (PHYC 551, 552, 650 or ECE 551, 651) with at least 2 of those hours in Optics, is required. Under Plan II(b) (internship course-based), a minimum of 33 hours of course work, including 3 hours of internship (under the course number PHYC 559/ ECE 599), is required. All three plans must include PHYC 463/ECE 463, PHYC 464/ECE 464, PHYC 476L or 477L, ECE 574L, PHYC 511 or ECE 561, and ECE 564 or ECE 565 as well as 6 hours (only 3 hours under Plan I) drawn from ECE 475, PHYC 521, PHYC 554/ECE 567, PHYC 555/ECE 568, PHYC 529 or ECE 572, PHYC 569 or ECE 595, PHYC 564, ECE 577, PHYC 566, PHYC 531, and PHYC 556. Passing of a M.S. examination is required under Plans II(a) and II(b).

Ph.D. in Engineering

Concentration: Electrical Engineering and Computer Engineering, same areas of study as for M.S. above.

Ph.D. in Optical Science and Engineering

Requirements

Acceptance as a regular graduate student in the ECE department for the Master's Degree normally requires a Bachelor's Degree in electrical or computer engineering and a minimum 3.0 GPA. Minimum GRE scores are also required. Students whose training is in some other area of engineering, science or mathematics may be accepted into a graduate program. Depending upon their specific background, such students may need to make up undergraduate electrical or computer engineering courses. Three letters of reference and a letter of intent are also required.

The Master's Degree is offered under both Plan I and Plan II. Under Plan I (thesis), 30 hours are required with 24 hours of course work and 6 hours of thesis. Of the course work hours, 12 hours are required at the 500 level or above. Under Plan II (non-thesis), 33 hours of course work are required with 21 hours being at the 500 level or above. Every student must declare a track and pursue the core courses and recommended courses for that track, with the advice and consent of the track chairperson and the department graduate studies director. A thesis defense is required under Plan I and a final exam is required under Plan II. In Plan I at least five courses must be in ECE, while six courses are required to be in ECE under Plan II.

Acceptance as a regular graduate student in this department for the Ph.D. program normally requires a Bachelor's or Master's Degree in electrical or computer engineering and a minimum 3.5 GPA. Three letters of reference and a letter of intent are required. Minimum GRE scores are also required. Candidates for the Ph.D. program must pass a qualifying examination early in their program of studies. Students must also pass a comprehensive exam and defend their dissertation.

Insert

(insert)

Double Master's Program – MBA and MS in EE or CompE

This dual degree program leading to an MBA and an MSEE (or MSCE) is aimed at electrical or computer engineering graduate students who have interest in a career that requires graduate level training in both business and electrical or computer engineering. The main advantage of a dual degree program is that it minimizes the time, expense and coursework for earning both graduate degrees, one from the School of Engineering (SOE) and the other from the Anderson Schools of Management (ASM). The advantage is realized by "sharing" courses between the two degrees as stipulated in the program. A requirement of a dual degree program is that both degrees must be earned and granted simultaneously. Hence, one degree is not awarded even if its requirements are fulfilled. Withdrawal from the program entails an application to "restart" down a path that leads to the completion of degree the student desires. In some cases, this may mean additional course requirements.

The 3/2 MBA ECE Student

For those ECE students pursuing the 3/2 MBA program, the double master's program must be entered soon after becoming a graduate student. (See http://mba.mgt.unm.edu/altprograms/32ece_mba for more information on the 3/2 MBA program). In addition to fulfilling the MBA requirements from the ASM after receiving the bachelor's degree from the SOE, the 3/2 ECE student must earn at least eighteen hours in ECE courses including nine hours in an emphasis as described in the Plan II requirements of the ECE Graduate Student Handbook. The MBA requirements can be found at the ASM website: <http://www.mgt.unm.edu>.

The Non 3/2 MBA ECE Student

The ECE graduate student who did not complete his/her BSEE or BSCE degree requirements under the 3/2 MBA program is also eligible for entering the double master's program. In addition to fulfilling the MBA requirements from the ASM, the non 3/2 ECE graduate student must earn at least eighteen hours in ECE courses including nine hours in an emphasis as described in the Plan II requirements of the ECE Graduate Student Handbook. The MBA requirements can be found at the ASM website: <http://www.mgt.unm.edu>.



New Mexico Society of Professional Engineers

P.O. Box 8306 Albuquerque, New Mexico 87198-8306 • 505-265-9501 (phone) • 505-265-2877 (fax) • nmspe@nmspe.org

December 7, 2005

Andres C. Salazar, PhD
Professor and PNM Chair in Microsystems, Commercialization & Technology
Anderson Schools of Management
School of Engineering
Mail stop 05-3090
University of New Mexico
Albuquerque, New Mexico 87131

Re: Support of Double Masters Program for Electrical Engineers & Business (EE/MBA)

Dear Dr. Salazar:

The New Mexico Society of Professional Engineers recently heard of your proposal to develop and implement a Double Masters Program for Electrical Engineers and Business (EE/MBA). After much discussion at the Board meeting, there was unanimous support from the Board for your proposal. Please consider this correspondence to be full support from the New Mexico Society of Professional Engineers for your Double Masters Program.

Next year I will have been in the engineering profession for 30 years. During this time, I have come to recognize the benefits that multi-faceted education affords. I believe that an engineer's growth can be limited and society less served, if they do not master the ability to communicate or balance a budget. Therefore, I strongly support your Double Masters Program.

Good luck on your endeavor.

Sincerely,

David Stoliker, PE
NMSPE President

cc: Bill McFarland, NMSPE Past President
Scott Verhines, NMSPE President Elect
Tom Bishop, NMSPE VP - Communications
Rhonda Dahl, NMSPE Executive Director
C:\Documents and Settings\Administrator\My Documents\NSPE\Support Letter.EE.MBA.Sanchez.12.7.05.doc

FORM C - DEGREE/PROGRAM CHANGE

CIP CODE

Date: 11/17/06Kay Willerton

(Name of individual initiating curricular change form)

Division Head, Math, Science & Engineering, 661-4697

(Title, position, telephone number)

kayw@la.unm.edu

(Email address)

Los Alamos

(Department/Division/Program/Branch)

Mark Appropriate Program:

Undergraduate Degree Program ☐Graduate Degree Program ☐

(For existing degree only)

Mark appropriate category:

NEW

REVISION OF

, DELETION

NAME CHANGE

Degree AS
Type☐ Undergraduate
degree only☒☐☐

Major

☐☐☐☐

Minor

☐☐☐☐

Concentration

☐☐☐☐

Certificate

☐☐☐☐

Emphasis

☐☐☐☐

Department

☐

NA

☐☐

Subject Code

☐☐☐☐

Give exact title and requirements as they should appear in the catalog. See current catalog for format within the respective college (attach additional sheets if necessary). Identify in bracket form what is being changed.

SEE ATTACHED

Reason(s) for Request (attach additional sheets if necessary).

SEE ATTACHED

Attach statements to address Budgetary and Faculty Load Implications and Long-range planning.

Does this change affect in a significant way, any other departmental programs/branch campuses? Yes ☐ No ☒

If yes, have you resolved these issues with department/branch involved? _____ (attach statement)

Proposed Effective Term: Fall 2007
Term Year

Required Signatures:

Department Chair Kay WillertonDate 11-17-06College Curriculum Committee Dennis Dierker - WilsonDate 12-7-06

College or School Faculty (if necessary) _____

Date _____

College or School Dean/Dean of Instruction _____

Date 12-7-06Office of the Registrar—Catalog Elizabeth A. BartonDate 01/15/07Director of relevant Library Dennis Dierker - WilsonDate 12-7-06

FS Graduate Committee (graduate courses) _____

Date _____

FS Undergraduate Committee (undergraduate courses) Wynne H. LongDate Aug 31 2007FS Curriculum Committee Wynne H. LongDate 9-8-2007

Assoc. Provost for Academic Affairs _____

Date 9/24/07

Faculty Senate _____

Date _____

Board of Regents _____

Date _____

THE UNIVERSITY OF NEW MEXICO OFFICE OF THE REGISTRAR (Revised 06/2006)

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Entered Catalog

For Registrar's Office ONLY:

Copies Mailed

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6. Director of relevant Library
7. FS Graduate Committee (graduate courses)
8. FS Undergraduate Committee (undergraduate courses)
9. FS Curriculum Committee
10. Assoc. Provost for Academic Affairs
11. Faculty Senate
12. Board of Regents (new degree only)

Assigned by
Associate Provost
for Academic Affairs

DEC 1 2 2006

OFFICE OF THE REGISTRAR

* Plan for curricular process to take at least 12 months.

This form is for Associate of Science in Environmental Science
Name of New or Existing ProgramThis program is or would be located in current undergraduate/graduate catalog
on page(s) Page 61, UNM-Los Alamos undergraduate catalog

Proposed Revision of: Associate of Science in Environmental Science

Overall rationale for changes: our degree no longer represents the first two years of courses for a UNM baccalaureate in Environmental Science or any other science field. It includes more science courses than are required for ANY individual B.A. or B.S. in science. It also includes 15 credit hours of ENGF courses that do not exist in the main campus catalog, and which therefore cannot contribute toward a B.S. or B.A. On the other hand, it fails to include courses in some other core areas. The original emphasis on hazardous waste no longer seems useful, but there are currently local contractors who may hire people with AS in Environmental Science degrees for some of their technician jobs in areas such as soil and water sampling and testing and remediation.

Existing program – [regular type]

Proposed revisions – bold type

Explanations – italics

[About the Program]

[The degree represents two years of study in the field of Environmental Science. The curriculum provides the mathematical and technical course work that forms the basis for problem solving in this important area. Students with this degree are well qualified to enter the work force as technicians or to continue their studies to the baccalaureate level.]

Proposed Revision:

About the Program

This program provides students with the first two years of study toward a Bachelor's degree in Environmental Science or Earth and Planetary Science at UNM Albuquerque Campus or other four-year institutions. It can also be applied toward a B.S. in Biology with a Concentration in Conservation Science. As a terminal degree, it is sufficient preparation for certain technician jobs in areas such as environmental testing and remediation.

[Specific Requirements]

1. [A minimum of 67 credit hours with a minimum grade point average of 2.0. At least 15 of these 67 hours must be UNM-LA catalog credit courses taken in residence.]

Proposed Revision:

Specific Requirements

1. A minimum of 66 credit hours with a minimum grade point average of 2.0. At least 15 of these 66 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. of interest if planning to transfer, in order to make the best choices among the optional courses below.

Rationale: The minimum of 66 credit hours would match our other newly revised AS in Pre-Engineering and AS in Science.

2. **Writing and Speaking (6 credit hours)**

ENGL 101: Composition I: Exposition (3)

ENGL 102: Composition II: Analysis and Argument (3)

(No change)

3. **[Mathematics and Statistics (11 credit hours)**

STAT 145: Introduction to Statistics (3)

MATH 162: Calculus I (4)

MATH 163: Calculus II (4)]

Proposed Revision:

3. **Mathematics and Statistics (3 credit hours)**

MATH 162: Calculus I (4)

Note: MATH 180 may be substituted for MATH 162, but will only be accepted for some bachelor's degrees (e.g. biology).

Rationale: MATH 162 and 163 are required for UNM'S BS in EPS and BS in BIOL. For the BS in ENVIS, 162 is required and 163 is an option. For the BA in EPS, only 3 cr math are required (162 or above). Taking more math as an elective is listed below (item 11).

4. **[Physical/Natural Sciences (26 credit hours)**

BIOL 201: Molecular and Cell Biology (4)

CHEM 121L: General Chemistry (4)

CHEM 122L: General Chemistry (4)

CHEM 253L: Quantitative Analysis (4)

PHYC 160: General Physics (3)

PHYC 160L: General Physics Laboratory (1)

PHYC 161: General Physics (3)

PHYC 161L: General Physics Laboratory (1)

PHYC 167: Problems in General Physics (1)

PHYC 168: Problems in General Physics (1)]

Proposed revision:

4. Physical and Natural Sciences (21 credit hours)

Including:

BIOL 123: Biology for Health Related Sciences and Non-Majors (3)
BIOL 124L: Biology for Health Related Sciences and Non-Majors
Lab (1)
CHEM 121L: General Chemistry (4)
ENVS 101: The Blue Planet (3) OR EPS 101: How the Earth Works –
An Introduction to Geology (3)
ENVS 102L: The Blue Planet Laboratory (1) OR EPS 105L: Physical
Geology Laboratory (1)
PHYC 160: General Physics (3)

And 6 additional credit hours selected from:

BIOL 202: Genetics (4)
BIOL 203L: Ecology and Evolution (4)
BIOL 204L: Plant and Animal Form and Function (4)
CHEM 122L: General Chemistry (4)
CHEM 212: Integrated Organic Chemistry and Biochemistry
(4)
EPS 201L: Earth History (4)
PHYC 161: General Physics (3)

Note: BIOL 201 may be substituted for BIOL 123/124L. BIOL 201 is generally a prerequisite for BIOL 202, 203L, or 204L, but an environmental science major has permission from UNM-ABQ to go directly from BIOL 123/124L to BIOL 203L. A Biology major must eventually complete BIOL 201, 202, 203L, and 204L.

CHEM 131L and 132L could be substituted for CHEM 121L and 122L, although it is not usually offered at UNM-LA.

PHYC 151 could be substituted for PHYC 160, but will only be acceptable for some of the baccalaureate degrees (e.g. biology B.A. or B.S., earth & planetary science B.A.).

Rationale: The 26 credit hours for this category are excessive. Although baccalaureates in biology require 27-30 credit hours of 100- and 200- level science courses, those in environmental science or earth &

planetary science require only 19-24 at that level. So a minimum of 21 seems reasonable. More can be included as electives (see below).

The 15 cr. of specifically required science courses listed as specifically required are indeed required for UNM's B.S. degree in environmental science. All but the BIOL 123/124L are required for UNM's B.S. in EPS, but it's an option for that degree also.

The choices for the remaining 6 cr are options that will contribute to BS's in ENVS, EPS, and/or BIOL.

5. [Environmental Science courses (15 credit hours)]

ENGF 130: Introduction to Environmental Science I (3)

ENGF 131: Introduction to Environmental Science II (3)

ENGF 201: Fundamentals of Hazardous Materials (3)

ENGF 202: Introduction to Hazardous Waste Management (3)

ENGF 222: Introduction to Radioactive Materials (3)]

Proposed revision:

Omit this section.

Rationale: None of these courses is in the main campus catalog, so they are not transferable to a B.S. The introduction to environmental science is now covered in the main campus courses ENVS 101 and 102L (or alternative EPS 101, 105L) along with one required biology course.

6. [Computer Science, Computer Technology, and Information Technology (3 credit hours)]

Proposed revision:

Omit this section.

Rationale: These courses are not required for BS's in ENVS, EPS, or BIOL. One option is included in the electives below, since computer skills may be useful for some technicians in the ENVS field.

7. [Fine Arts / Humanities / Social Sciences (6 credit hours)]

Proposed revision:

Change to sections 5, 6, 7, and 8 below.

5. Humanities (3 credit hours)

Select any UNM core course in this area.

6. Social and Behavioral Sciences (3 credit hours)

Select any UNM core course(s) in this area.

7. Foreign Language (3 credit hours)

Select any UNM core course in this area.

8. Fine Arts (3 credit hours)

Select any UNM core course in this area.

Rationale: If our A.S. is really preparing a student to transfer to main campus, more core courses should be included. These areas are shortchanged in the current degree plan.

Proposed addition:**9. Other (24 credit hours)**

To complete the required number of hours for this degree, other courses (24 credit hours) may be chosen from the following if not already counted in your degree program:

Writing and Speaking (Maximum of 3 credit hours)

ENGL 219: Technical Writing (3)

ENGL 220: Expository Writing (3)

ENGL 290: Introduction to Professional Writing (3)

C&J 130: Public Speaking (3)

Mathematics and Statistics

MATH 163: Calculus II (4)

Any Math course above MATH 163

Physical and Natural Sciences

ASTR 270: General Astronomy (3)

BIOL 202: Genetics (4)

BIOL 203L: Ecology and Evolution (4)

BIOL 204L: Plant and Animal Form and Function (4)

CHEM 122L: General Chemistry (4)

CHEM 212: Integrated Organic Chemistry and Biochemistry (4)

EPS 201L: Earth History (4)

EPS 203: Earth Resources and Man (3)

EPS 251: Meteorology (3)

PHYC 160L: General Physics Laboratory (1)

PHYC 161: General Physics (3)

PHYC 161L: General Physics Laboratory (1)

PHYC 167: Problems in General Physics (1)

PHYC 168: Problems in General Physics (1)

Humanities (Maximum 3 credit hours)

Select any UNM core course in this area.

Note: For UNM students working toward a B.S. in ENVS or a B.S. or B.A. in EPS, selected courses in engineering, computer science, anthropology, or geography may also be used, but only with permission from the main campus departments of ENVS or EPS.

Associate of Science in Environmental Science
(Exactly as it will appear in the catalog)

About the Program

This program provides students with the first two years of study toward a Bachelor's degree in Environmental Science or Earth and Planetary Science at UNM Albuquerque Campus or other four-year institutions. It can also be applied toward a B.S. in Biology with a Concentration in Conservation Science. As a terminal degree, it is sufficient preparation for certain technician jobs in areas such as environmental testing and remediation.

Specific Requirements

1. **A minimum of 66 credit hours with a minimum grade point average of 2.0.**

At least 15 of these 66 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. of interest if planning to transfer, in order to make the best choices among the optional courses below.

2. **Writing and Speaking (6 credit hours)**

ENGL 101: Composition I: Exposition (3)

ENGL 102: Composition II: Analysis and Argument (3)

3. **Mathematics and Statistics (3 credit hours)**

MATH 162: Calculus I (4)

Note: MATH 180 may be substituted for MATH 162, but will only be accepted for some bachelor's degrees (e.g. biology).

4. **Physical and Natural Sciences (21 credit hours)**

Including:

BIOL 123: Biology for Health Related Sciences and Non-Majors (3)

BIOL 124L: Biology for Health Related Sciences and Non-Majors Lab (1)

CHEM 121L: General Chemistry (4)

ENVS 101: The Blue Planet (3) OR EPS 101: How the Earth Works –
An Introduction to Geology (3)
ENVS 102L: The Blue Planet Laboratory (1) OR EPS 105L: Physical
Geology Laboratory (1)
PHYC 160: General Physics (3)

And an additional 6 credit hours selected from:

BIOL 202: Genetics (4)
BIOL 203L: Ecology and Evolution (4)
BIOL 204L: Plant and Animal Form and Function (4)
CHEM 122L: General Chemistry (4)
CHEM 212: Integrated Organic Chemistry and Biochemistry (4)
EPS 201L: Earth History (4)
PHYC 161: General Physics (3)

Note: BIOL 201 may be substituted for BIOL 123/124L. BIOL 201 is generally a prerequisite for BIOL 202, 203L, or 204L, but an environmental science major has permission from UNM-ABQ to go directly from BIOL 123/124L to BIOL 203L. A Biology major must eventually complete BIOL 201, 202, 203L, and 204L.

CHEM 131L and 132L could be substituted for CHEM 121L and 122L, although it is not usually offered at UNM-LA.

PHYC 151 could be substituted for PHYC 160, but will only be acceptable for some of the baccalaureate degrees (e.g. biology B.A. or B.S., earth & planetary science B.A.).

5. Humanities (3 credit hours)

Select any UNM core course in this area.

6. Social and Behavioral Sciences (3 credit hours)

Select any UNM core course(s) in this area.

7. Foreign Language (3 credit hours)

Select any UNM core course in this area.

8. Fine Arts (3 credit hours)

Select any UNM core course in this area.

9. Other (24 credit hours)

To complete the required number of hours for this degree, other courses (24 credit hours) may be chosen from the following if not already counted in your degree program:

Writing and Speaking (Maximum of 3 credit hours)

ENGL 219: Technical Writing (3)

ENGL 220: Expository Writing (3)

ENGL 290: Introduction to Professional Writing (3)

C&J 130: Public Speaking (3)

Mathematics and Statistics

MATH 163: Calculus II (4)

Any Math course above MATH 163

Physical and Natural Sciences

ASTR 270: General Astronomy (3)

BIOL 202: Genetics (4)

BIOL 203L: Ecology and Evolution (4)

BIOL 204L: Plant and Animal Form and Function (4)

CHEM 122L: General Chemistry (4)

CHEM 212: Integrated Organic Chemistry and Biochemistry (4)

EPS 201L: Earth History (4)

EPS 203: Earth Resources and Man (3)

EPS 251: Meteorology (3)

PHYC 160L: General Physics Laboratory (1)

PHYC 161: General Physics (3)

PHYC 161L: General Physics Laboratory (1)

PHYC 167: Problems in General Physics (1)

PHYC 168: Problems in General Physics (1)

Humanities (Maximum 3 credit hours)

Select any UNM core course in this area.

Note: For UNM students working toward a B.S. in ENVS or a B.S. or B.A. in EPS, selected courses in engineering, computer science, anthropology, or geography may also be used, but only with permission from the main campus departments of ENVS or EPS.

Memorandum

To: Dr. Carlos Ramirez
From: Dennis Davies-Wilson, Library Director
Date: December 7, 2005
Re: Library support for changes to AS Program in Environmental Science Form C

Proposed changes will not impact the library. Collection will be supplemented as needed.

Graduate Program in Nuclear Engineering with Concentration in Radiation Protection Engineering

This concentration is currently described on page 400 of the current catalog.

According to recent DOE surveys, the next 15 to 20 years will be a very challenging period in health physics and radiation protection education. The DOE review of current and projected labor market conditions for health physicists and radiation protection engineers shows current shortages and a high potential for shortages over the next 15 years. Based on present rates of graduation from health physics programs at all levels, existing academic programs fall far short of meeting even the most conservative demand projections. Locally within the state of New Mexico, surveys of requirements at Sandia and Los Alamos indicate immediate needs for 25 health physics/radiation engineering personnel with a continuing annual demand for 10 to 15. Educational background requirements range from bachelor's level to doctorate with most positions requiring a M.S. in health physics, radiation protection engineering, or nuclear engineering with a health physics option. Discussions with personnel at both facilities indicated that creation of a radiation protection engineering program at UNM would be a definite asset to both national laboratories and would help alleviate local shortages of trained personnel.

Towards this need, in the Fall of 1990 the Chemical and Nuclear Engineering Department at UNM started a program leading towards a M.S. in Nuclear Engineering with a concentration in radiation protection engineering. Over the last 16 years, we have averaged about 4 students graduating from the program each year. Course requirements follow suggested curricula outlined in Guidelines for Health Physics Program Content: Master's Level from the Health Physics Journal. The program requires 18 hours of core courses, 12 hours of electives, and 6 hours of practicum. The majority of the courses are offered in the School of Engineering but a core course from the medical school is also included. Students have signed up for practicum experience with Kirtland, Sandia, and UNM Hospital. It is expected that upon graduation, the students will be ready to take part I of the Health Physics certification exam with part II waiting until the required experience has been obtained.

ADMISSION: As most students enter *this* program from a variety of non-medical physics backgrounds, admission to the Radiation Protection Engineering concentration is based on undergraduate GPA, letters of recommendation, GRE scores, and a technical degree (Math, Physics, Chemistry, Computer Science, Biology, or Engineering).

CURRICULUM: There are 36 hours required for the Master of Nuclear Engineering in Radiation Protection Engineering concentration. There are 18 credit hours of core courses with 6 hours of practicum or thesis. The remaining 12 hours are electives. This large number of credit hours is required as we are providing all of the education in a discipline rather than building on bachelor's level work.

EXAMINATION: The Graduate School requires a Master's Comprehensive Examination that can be either written or oral, or both. For this program, this will be a written and oral comprehensive exam in the area of radiation protection engineering. It will cover material from the core classes and experience acquired through the practicum.

GRADES: For the University, a student must maintain a GPA of a least 3.0 in all courses taken for graduate credit. No more than 6 hours of C's can be applied towards the course requirements. A student is placed on probation after 2 NC/F's and will be removed from the program if a third NC or F is received. For this program, the student maintains at least a 3.3 GPA in all courses that apply towards the degree.

Current catalog Listing with changes in bold

In addition to the traditional master's program, the department also offers a masters-level concentration in Radiation Protection Engineering (RPE). This concentration is intended to train people to work in the area of occupational and environmental health physics and leads to a terminal, professional master's degree. The admission requirements for this concentration differ from those of the traditional program. The prerequisites are: a Bachelor's degree in engineering from an ABET-accredited program OR a Bachelor's degree including a minimum of one year of general college chemistry with laboratory, one year of general college physics with laboratory, one year of differential and integral calculus, ~~1 semester hour of computer programming~~, a semester of differential equations, and 32 **total** semester hours of mathematics (calculus level or above) and science.

Students **concentrating** in RPE are required to take six core courses. These are ChNE 466*- Nuclear Environmental Safety Analysis, ChNE 524 – Interaction of Radiation with Matter, ChNE 528-External Radiation Dosimetry, **MPhy/ChNE 522-Radiation Biology**, ChNE 529-Internal Radiation Dosimetry, and ChNE 523L-Environmental Radiation Measurements Laboratory.

Another 12 credit hours of electives are required to complete the course work for the RPE concentration. These electives are chosen from areas of interest such as waste management, nuclear power or calculational methods. In addition to the 30 credit hours of courses, students must take 6 credit hours of **ChNE 591-Practicum**. The practicum involves a semester long project in the area of health physics usually under the supervision of a certified health physicist. (The RPE concentration is a Plan II program and does not have a thesis option.) After completing the course work and practicum, the student is awarded a master's degree in Nuclear Engineering with a concentration in radiation protection engineering. Graduates of the RPE concentration do not qualify for automatic admission to the Ph.D. program. They must fulfill all prerequisite requirements for the Ph.D. program before they will be admitted.

FORM C - DEGREE/PROGRAM CHANGE

CIP CODE

Date: 8/24/06

Anil Prinja

(Name of individual initiating curricular change form)

Professor, 7-4600

(Title, position, telephone number)

prinja@unm.edu

(Email address)

Chem. & Nuclear Engr.

(Department/Division/Program/Branch)

Mark Appropriate Program:

Undergraduate Degree Program ☐Graduate Degree Program ☒

(For existing degree only)

Mark appropriate category:

Degree MS

Type

Major

Minor

Concentration

Certificate

Emphasis

Department

Subject Code

NEW

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Undergraduate degree only

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REVISION OF

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NA

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DELETION

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NAME CHANGE

☐☐☐☐☐☐☐☐

Give exact title and requirements as they should appear in the catalog. See current catalog for format within the respective college (attach additional sheets if necessary). Identify in bracket form what is being changed.

Master of Science in Nuclear Engineering, Concentration in Medical Physics

Reason(s) for Request (attach additional sheets if necessary).

see attached

Attach statements to address Budgetary and Faculty Load Implications and Long-range planning.

Does this change affect in a significant way, any other departmental programs/branch campuses? Yes ☒ No ☐If yes, have you resolved these issues with department/branch involved? yes ☐ (attach statement)

Proposed Effective Term: Fall 2007

Term

Year

Required Signatures:

Department Chair

Julie F. Szy

Date 2-11-07

College Curriculum Committee

Charles B. Miller

Date 6 Feb 2007

College or School Faculty (if necessary)

Charles B. Miller

Date

College or School Dean/Dean of Instruction

Elizabeth A. Baston

Date 6 Feb 2007

Office of the Registrar—Catalog

Elizabeth A. Baston

Date 05/16/07

Director of relevant Library

Charles B. Miller

Date 6 Feb 2007

FS Graduate Committee (graduate courses)

Charles B. Miller

Date 12/4/07

FS Undergraduate Committee (undergraduate courses)

Charles B. Miller

Date

FS Curriculum Committee

Charles B. Miller

Date 11-5-07

Assoc. Provost for Academic Affairs

Wynn M. Ray

Date 11/10/07

Faculty Senate

Wynn M. Ray

Date

Board of Regents

Wynn M. Ray

Date

THE UNIVERSITY OF NEW MEXICO OFFICE OF THE REGISTRAR (Revised 06/2006)

ROUTING (All Four Collated Sets)

1. Department Chairperson
2. College Curriculum Committee
3. College or School Faculty (if necessary)
4. College or School Dean/Dean of Instruction
5. Office of the Registrar—Catalog
6. Director of relevant Library
7. FS Graduate Committee (graduate courses)
8. FS Undergraduate Committee (undergraduate courses)
9. FS Curriculum Committee
10. Assoc. Provost for Academic Affairs
11. Faculty Senate
12. Board of Regents (new degree only)

Assigned by
Associate Provost
for Academic Affairs

JAN 22 2007

OFFICE OF THE REGISTRAR

* Plan for curricular process to take at least 12 months.

This form is for MS Nucl. Engr. - Conc in Medical Physics

Name of New or Existing Program

This program is or would be located in current undergraduate/graduate catalog

on page(s) 400

Entered Banner

Entered Catalog

For Registrar's Office ONLY:

Copies Mailed

Graduate Program in Nuclear Engineering with a Concentration in Medical Physics

The University of New Mexico offers a graduate program in nuclear engineering that includes a concentration in radiation protection engineering (RPE). In addition, it is proposed that a concentration in Medical Physics be added.

The M.S. in Nuclear Engineering (NE) has had a concentration in Radiation Protection Engineering (RPE) listed in the catalog for the last ten or more years. This program, to train Health Physicists, was created to address the radiation protection needs of industry including Sandia and Los Alamos National Laboratories. There has been a steady rate of about 4 students graduating each year with this concentration. The new program in Medical Physics will complement the existing concentration in RPE and expand the offering in the Nuclear Engineering field. Most of the existing courses can be tailored to meet the needs of the new program. This is easy to do because most of the existing required courses for RPE are fundamental in nature and provide information required by Nuclear Engineers, Health Physicists, and Medical Physicists. No changes in the existing course descriptions will be necessary. By adding 7 new courses to the two year program the existing degree can be transformed into a Medical Physics MSNE concentration while maintaining the existing RPE concentration.

Why the need for such a program? There is a huge shortage of Medical Physicists in the United States and most of the world. This shortage will exist for many years to come. Therefore new programs must be started to help fill this shortage. It will be easy to find students to enroll in this new program. Medical Physicists are well paid and there are openings in almost every city in the United States.

Once the program is started it is our plan to obtain accreditation through the American Association of Physicists in Medicine CAMPEP certification process. This is the only accreditation body recognized by the American Board of Radiology to accredit our program. The proposed curriculum will meet these standards.

Initially the program will start small by only admitting 4-5 students the first year. It will be followed by 4-5 students the second year, giving an equilibrium enrollment of 10-12 students. Currently the enrollment is limited by laboratory size. We are working on the laboratory problem and hope to have it solved within 2 years.

This new type of program has been encouraged by the Vice Provost. The program is supported by the deans of the Medical School and the School of Engineering. The program will be taught by faculty in each of these schools. It is the first bioengineering education program on the campus. No additional faculty will be required to start the program as only one new course (lecture and lab) will be added each semester. The program has a two year curriculum.

ADMINISTRATION: The concentration will be administered through the Chemical and Nuclear Engineering Department. Admissions, advisement, degree progress and examinations will all be done through ChNE.

ADMISSION: Students will apply for admission to the concentration through the Chemical and Nuclear Engineering Department. As most students enter *this* program from a variety of non-medical physics backgrounds, admission to the Medical Physics concentration is based on undergraduate GPA, letters of recommendation, GRE scores, and a technical degree (Math, Physics, Chemistry, Computer Science, Biology, Public Health, or Engineering).

PREREQUISITES: The Prerequisites, in addition to a technical bachelor's degree, are: One year of general college physics with laboratory (purely descriptive courses are insufficient; calculus based courses are desired). One year of general college chemistry with laboratory. One year of differential and integral calculus. A survey course in general biology, human biology or mammalian physiology. A total of 32 hours of science and math is required.

LEVELING: In most cases, students entering the program have the necessary prerequisites so little leveling is required. However, in addition to the prerequisites listed above, a course in differential equations, such as Math 316 - Ordinary Differential Equations, is required. This should be taken before the first fall semester.

CURRICULUM: There are 40 graduate credit hours required for the Masters in Nuclear Engineering in the Medical Physics concentration. There are no electives in this curriculum. (The Medical Physics concentration is a Plan II program and does not have a thesis option.) After completing the course work and practicum, the student is awarded a master's degree in Nuclear Engineering with a concentration in Medical Physics. Graduates of the Medical Physics concentration do not qualify for automatic admission to the Ph.D. program. They must fulfill all prerequisite requirements for the Ph.D. program before they will be admitted.

EXAMINATION: The Graduate School requires a Master's Comprehensive Examination that can be either written or oral, or both. For this program, this will be a written and oral comprehensive exam in the area of medical radiation physics. It will cover material from the core classes and experience acquired through the practicum.

GRADES: For the University, a student must maintain a GPA of a least 3.0 in all courses taken for graduate credit. No more than 6 hours of C's can be applied towards the course requirements. A student is placed on probation after 2 NC/F's and will be removed from the program if a third NC or F is received. For this program, the student maintains at least a 3.3 GPA in all courses that apply towards the degree.

MPhy 432 - Introduction to Medical Physics (3 hrs) will be offered in the Spring of each year as a recruiting tool. A survey course covering Medical Physics, Diagnosis, Radiation Oncology, Nuclear Medicine, and Radiation Protection. This is not part of the curriculum for the MS degree.

FALL-1 (11 hrs, 8hrs graduate credit)

HSci 380: Human Cross Sectional Anatomy. (3) (prerequisite for ChNE 518 and 519L)

Course examines three dimensional relationships of skull, brain, CNS, thorax, abdomen, and pelvis correlating this information with imaging modalities (CT, MRI, Nuclear Medicine).

ChNE 524: Interaction of Radiation with Matter. (3)

Nuclear models and energies levels, cross sections, decay processes, range energy relationships for alphas, betas, gammas, neutrons and fission products. Ionization, scattering and radiative energy exchange processes. Effects of radiation on typical materials used in the nuclear and medical industries. Both theory and application will be discussed.

MPhy 516 Medical Imaging I - X-ray Physics. (3)

Course provides Review of x-ray interactions, x-ray production, film-screen and film processing, mammography, fluoroscopy, image quality, digital radiography, physics of computed tomography, PACS and digital systems, and diagnostic radiation shielding. Corequisite – ChNE 517L

MPhy 517L Medical Imaging I Laboratory - X-ray Physics. (1)

Perform QC on a diagnostic x-ray system, a fluoroscopy system, CR system, DR system, CT scanner, mammography system. Evaluate radiation shielding in a diagnostic x-ray room. Perform a digital monitor evaluation and evaluate a film processor. Corequisite – ChNE 516

ChNE 515: Special Topic in Mathematical Techniques for Medical Physics (1 hr)

Colloquia, special lectures and individual study in areas of Fourier Transforms, and other mathematical techniques used in medical physics and imaging.

SPRING-1 (12 hrs)

ChNE 528: External Radiation Dosimetry. (3)

Ionizing radiation, kerma, fluence, dose and exposure; Attenuation and Buildup, charged particle equilibrium, Bragg-Gray cavity theory; fundamentals of dosimetry, ionization chambers, integrating dosimetry and pulse mode detectors, and Neutron interactions and dosimetry. Both theory and applications will be presented.

MPhy 530 Radiation Oncology Physics – (3)

The course will cover the operation of linear accelerators, measurement of absorbed dose and quality of x-ray beams, dose distribution and scatter analysis, and clinical dose calculations for electron and photon beams. Techniques such as IMRT, total body irradiation, and SRS will be discussed. Brachytherapy treatment planning including HDR, LDR and intravascular treatments will be covered.

Corequisite – ChNE 531L

MPhy 531L Radiation Oncology Physics Laboratory. (3)

Complete a number of clinical treatment plans, participate in the annual calibration of a linear accelerator, acquire basic photon and electron dose data for a computerized treatment planning system, perform several brachytherapy treatment plans including HDR and LDR plans, and perform an IMRT QA validation.

Corequisite – ChNE 530

FALL-2 (10 Hrs)

ChNE 529: Internal Radiation Dosimetry. (3)

Internal contamination, radiation quantities, ICRP dose methodologies, lung models, bioassay, whole body counting, uranium and plutonium toxicology and metabolism, alpha dosimetry and ventilation control/air sampling.

ChNE 523L: Environmental Measurements Lab. (3)

In depth consideration of radiation detection systems and nuclear measurement techniques. Radiation interaction with matter and detection techniques for nuclear radiations. Experiments will be performed using gas, scintillation, and semiconductor counters and include the design of experiments and identification of unknown radionuclides. Laboratory customized for each student's needs.

MPhy 518 Medical Imaging II- MR, Ultrasound and Nuclear Medicine Physics. (3)

MR basic physics, MR imaging equipment, and ultrasound imaging physics. Nuclear medicine imaging physics including: radioactive decay, isotope production, detector systems, NaI gamma camera imaging systems, PET/SPECT Cameras systems, regulations and patient dose calculations.

Corequisite – MPhy 519L, Prerequisite – HSci 380

MPhy 519L Medical Imaging II-Laboratory – MR, Ultrasound and Nuclear Imaging Physics. (1)

Perform MRI ACR QC tests and Ultrasound ACR QA tests. Perform QC tests on dose calibrator, gamma camera, PET camera, SPECT camera. Perform a leak test on a sealed radioactive material source. Visit a PET cyclotron.

Corequisite – MPhy 518, Prerequisite – HSci 380

SPRING-2 (6 hrs)

ChNE 591: Practicum. (6)

Professional practice experience with one of the radiation oncology facilities in Albuquerque. The purpose is to provide the student with practical experience in radiation oncology physics. The requirements will be, a semester project in conjunction with the field experience, a written report, and an oral presentation.

ChNE 522: Radiation Biology & Health Physics. (3)

The following topics will be explored: genetic effects, carcinogens, developmental effects, cell effects, occupational doses and management, and some principles of personnel protection.

The curriculum is as follows:

Chemical and Nuclear Engineering Master's Degree Curriculum Medical Physics Concentration					
Fall First Year	10		Spring First Year	8	
ChNE 524	3	Interaction of Radiation Matter	ChNE 528	3	External Dosimetry
ChNE/MPhy 516	3	Medical Imaging I	ChNE 522 / MPhy 522	3	Radiation Biology
MPhy 517L	1	Medical Imaging I Lab	CS 590	2	Computer Methods for Medical Physics
HSCI 480	3	Cross sectional Anatomy			
Fall Second Year	10		Spring Second Year	12	
ChNE 523L	3	Environmental Lab	ChNE 591	6	Practicum
ChNE/MPhy 518	3	Medical Imaging II	ChNE/MPhys 540	3	Radiation Oncology
ChNE 529	3	Internal Dosimetry	MPhy 541L	3	Radiation Oncology Lab
MPhy 519L	1	Medical Imaging II Lab			

The Senate Graduate Committee raised concerns about the concentration in Medical Physics house in one program (Nuclear Engineering) while the predominance of courses were taught in another (Biomedical Sciences). Professor Philip Heintz, Robert Busch and Anil Prinja met with the Curriculum/New Programs subcommittee of the SGC to discuss these concerns. The SGC subcommittee requested the program redraft the narrative attached to the Form C proposing the new concentration and to cross-list courses, where appropriate. The attached memo from Dr. Prinja outlines the changes requested to the curriculum and the narrative was replaced.

The subcommittee also asked for a side-by-side comparison of the curriculum requirements for a master's level degree in Nuclear Engineering with no concentration as well as curriculum requirements for the concentrations in Radiation Protection and Medical Physics. That table is attached as well.

Senate Graduate Committee



The University of New Mexico

Chemical & Nuclear Engineering
209 Farris Engineering Center, MSC 01 1120
Albuquerque, NM 87131-0001
Telephone (505) 277-0477/277-5431
FAX (505) 277-1024

9/21/2007

The following packet contains:

1. Form C for approval of concentration changes for the M.S. in Nuclear Engineering
2. Document describing the Medical Physics concentration
3. The curriculum revision forms listed below with the expected action

Course number	Form	Action Requested
432	B	New Course
516	B	New Course cross listed with Biomed
518	B	New Course cross listed with Biomed
522	B	New Course
540	B	New Course cross listed with Biomed, was originally submitted as chNE 530, but there was a number conflict
541L		New Course from Biomed, was originally submitted as Biomed 531L, but changing number to avoid conflict.
591	A	Change Title

The Radiology Department is submitting a number of Form B's for the new Medical Physics classes that they are responsible for. These are included in the description of the concentration. If you have any questions about these forms, please address them to:

Anil K. Prinja
Professor of Nuclear Engineering and Assoc. Chair
Farris Engineering Center, MSC 01-1120 (277-4600)
prinja@unm.edu

Nuclear Engineering	Radiation Protection Engr	Medical Physics
Plan I	Plan II	Plan II
24 hrs Course Work	30 hrs Course Work	40 hrs Course Work
6 hrs Thesis	6 hrs Practicum	6 hrs Practicum
2 Required Courses	6 Required Courses	All (13) Required Courses
ChNE 410	ChNE 466	HSCI 480*
ChNE 525	ChNE 522**	ChNE 522**
	ChNE 523L	ChNE 523L
Electives can be:	ChNE 524	ChNE 524
ChNE 522**	ChNE 528	ChNE 528
ChNE 523L	ChNE 529	ChNE 529
ChNE 524		ChNE/MPhy 516**
ChNE 528	12 hrs electives	ChNE/MPhy 518**
ChNE 529		ChNE/MPhy 540**
		MPhy 517L**
18 hrs electives		MPhy 519L**
		MPhy 541L**
		CS 590

* Course Number is being changed from HSC 380 to 480.

** New Courses with Form B's

ana Ibanez - Re: Forms B for MPhy courses Page 1

From: Philip Heintz
To: Ibanez, Mariana
Date: 9/5/2007 7:54 AM
Subject: Re: Forms B for MPhy courses

Has the time and date of this meeting been definitely set?

Thanks,

Philip H. Heintz PhD
505-272-3402
pager 505-951-0909

>>> Mariana Ibanez 8/29/2007 8:38 am >>>
Dr. Heintz,

The Curriculum/New Programs subcommittee of the C would like to invite you to attend their next meeting to discuss the Medical Physics program. They also asked to have a representative of the Chemical and Nuclear Engineering program present. Who would you suggest I invite to attend?

The meeting will be on Tuesday, September 11 at 1 in Mitchell Hall, Room 108. Mitchell Hall is directly South of the duck pond, and room 108 is in the eastern section of the building.

Mariana

Mariana Ibanez
Academic Affairs Specialist
Office of Graduate Studies
107 Humanities Building
University of New Mexico
Albuquerque, NM 87131
(505) 277-2334 -- office
(505) 277-7405 -- fax
mibanez@unm.edu

>>> Philip Heintz 8/20/2007 4:35 PM >>>
Mariana,

Thanks for the email. Let me answer your questions. They are simple.

1. MPhy 432 is undergraduate only. We do not want any graduate students in the class. It really is a recruiting course for the curriculum.
2. MPhy 505 was set up to allow us to have new courses. It was a catchall for anything new we wanted to try. However, if it delays our approval, then we can run those courses through BIOMED 505, so at this point it can be disregarded.
3. We are upgrading HSC 380 to HSC 480* (Cross Sectional Anatomy) to get the students graduate credit. That is already in the works. This is a side issue, but we have added the difference in the graduate requirements in this application.

Let me know if you have any more questions. We have one student that wants to graduate the end of this semester, so anyway we can speed this approval up we would appreciate it.

Looking forward to working with you.

Sincerely,

Philip H. Heintz PhD
505-272-3402
pager 505-951-0909

>>> Mariana Ibanez 8/20/2007 2:58 pm >>>
Dr. Heintz,

I left a voicemail for you as well. I am the liaison for the Senate Graduate Committee and am trying to clarify a couple of points on the courses you submitted so that they will move through the Committee as easily as possible. The first point is that the MPhy 432 course does not indicate the grading differences between undergrad and grad students. The assumption the Committee will make is that the course is primarily an undergraduate course because it does not carry a 500 level number. UNM offers a number of #400 level courses and that is not a problem, however the Committee will need to know the difference between expectations, grading, etc. for the different level of student.

I have syllabi for all the other classes, but not for MPhy 505. Will you please send it to me as an attachment or fax (7-7405)?

Thanks.

I will advise of any additional comments or concerns once the curriculum subcommittee of the SGC meets.

Mariana

Mariana Ibanez
Academic Affairs Specialist
Office of Graduate Studies
107 Humanities Building
University of New Mexico
Albuquerque, NM 87131
(505) 277-2334 -- office
(505) 277-7405 -- fax
mibanez@unm.edu

FORM C - DEGREE/PROGRAM CHANGE

CIP CODE

Date: 12/11/06

Philip H. Heintz, Ph.D.

(Name of individual initiating curricular change form)

Professor of Radiology

(Title, position, telephone number)

pheintz@salud.unm.edu

(Email address)

Radiology/Radiological Sciences

(Department/Division/Program/Branch)

Mark Appropriate Program:

Undergraduate Degree Program ☐Graduate Degree Program ☐

(For existing degree only)

Mark appropriate category:

Degree Master's
Type

Major

Minor

Concentration

Certificate

Emphasis

Department

Subject Code

NEW

REVISION OF

DELETION

NAME CHANGE

☐

Undergraduate degree only

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NA

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Give exact title and requirements as they should appear in the catalog. See current catalog for format within the respective college (attach additional sheets if necessary). Identify in bracket form what is being changed.

MPHY - Subject Code for Masters of Science in Nuclear Engineering with a concentration in Medical Physics

The program is a joint degree program in conjunction with the academic departments of Radiology, Chemical and Nuclear Engineering and Physics. The student may obtain a graduate degree from either department. The courses offered specifically address the areas of study required by the medical physicist to become a certified practitioner. Areas of study include imaging physics, radiation oncology physics and medical health physics.

Reason(s) for Request (attach additional sheets if necessary).

This is a new program.

Attach statements to address Budgetary and Faculty Load Implications and Long-range planning.

Does this change affect in a significant way, any other departmental programs/branch campuses? Yes ☐ No ☒

If yes, have you resolved these issues with department/branch involved? (attach statement)

Proposed Effective Term: Summer 2007

Term

Year

Required Signatures:

Department Chair

College Curriculum Committee

College or School Faculty (if necessary)

College or School Dean/Dean of Instruction

Office of the Registrar—Catalog

Director of relevant Library

FS Graduate Committee (graduate courses)

FS Undergraduate Committee (undergraduate courses)

FS Curriculum Committee

Assoc. Provost for Academic Affairs

Faculty Senate

Board of Regents

Date

Date

Date

Date

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Date

Date

Date

THE UNIVERSITY OF NEW MEXICO OFFICE OF THE REGISTRAR (Revised 06/2006)

Entered Banner

Entered Catalog

For Registrar's Office ONLY

Copies Mailed

NTZ

FAX NO. :505 244 9979

Dec. 11 2006 03:17PM P2

Budgetary and faculty load data for the Medical Physics Concentration:

N/A - no change. The faculty has agreed that they can handle one new course plus lab each semester. This faculty has taught these courses at another university before coming to UNM.

UNIVERSITY OF NEW MEXICO LIBRARIES

To: Fran Wilkinson

From: Linda Lewis *LL*

Date: June 26, 2007

Subject: Forms A, B and C from Chemical & Nuclear Engineering

These forms are for a graduate program in nuclear engineering with a concentration in radiation protection engineering.

The revision of the Concentration makes minor changes in the program that will not have an impact upon the Library.

The creation of a new concentration in medical physics will involve primarily the HSLIC, and they have reviewed the proposals for the new courses and the program.

RECEIVED

JUN 06 2007

Graduate Office
University of New Mexico

From: Philip Heintz
To: Barton, Elizabeth
Date: 3/4/2007 12:15 PM
Subject: Problem solved with numbering

Hi,

As you know we have only one graduate program on North Campus. That is the Biomedical Sciences program. I talked with Ellen Cosgrove and Angela Wandinger-Ness about this problem. They both have agreed to host/sponsor the medical physics program. They are currently doing it now. So what do I need to do to change the forms from radiology to biomedical sciences. We still want to use the MPhy course call prefix. That should allow us to number them with the appropriate 500 course numbers.

Thanks,

Philip H. Heintz PhD
505-272-3402
pager 505-951-0909

From: Philip Heintz
To: Barton, Elizabeth
Date: 3/23/2007 9:12 AM
Subject: Medical Physics program

Hi,

Last night the Biomedical Sciences group approved support of the Medical Physics program. So now we have a home for the classes in a graduate program. We can now keep the 500 level numbers.

What do I need to change on the forms? What new signatures do I need?

Thanks,

Philip H. Heintz PhD
505-272-3402
pager 505-951-0909

FORM C - DEGREE/PROGRAM CHANGE

CIP CODE

Date: 2/26/07Kate Massengale

(Name of individual initiating curricular change form)

Division Head-Arts & Social Sciences, 505-662-5919 ext 606

(Title, position, telephone number)

katem@la.unm.edu

(Email address)

College of Education/Secondary Education/Los Alamos Branch

(Department/Division/Program/Branch)

Mark Appropriate Program:

Undergraduate Degree Program ☐Graduate Degree Program ☐

(For existing degree only)

Mark appropriate category:

NEW

REVISION OF

DELETION

NAME CHANGE

Degree AA
Type☐

Undergraduate degree only

☐☒☐Major ☐☐☐☐☐Minor ☐☐☐☐☐Concentration ☐☐☐☐☐Certificate ☐☐☐☐☐Emphasis ☐☐☐☐☐Department ☐☐

NA

☐☐Subject Code ☐☐☐☐☐

Give exact title and requirements as they should appear in the catalog. See current catalog for format within the respective college (attach additional sheets if necessary). Identify in bracket form what is being changed.

Reason(s) for Request (attach additional sheets if necessary).

There are currently no students in this ~~degree~~ program, and there is no evidence that there will be a need for this degree in the future.

Attach statements to address Budgetary and Faculty Load Implications and Long-range planning.

Does this change affect in a significant way, any other departmental programs/branch campuses? Yes ☐ No ☒If yes, have you resolved these issues with department/branch involved? ☐ (attach statement)Proposed Effective Term: Fall 2007

Term

Year

Required Signatures:

Department Chair Kate MassengaleDate 3/5/07College Curriculum Committee Dennis Davies-WaltonDate 3/5/07College or School Faculty (if necessary) Theresa E. BeattyDate 3-6-07College or School Dean/Dean of Instruction Edwin D. PughDate 3-9-07Office of the Registrar—Catalog Elizabeth A. BartonDate 07/31/07Director of relevant Library Dennis Davies-WaltonDate 3/5/07

FS Graduate Committee (graduate courses)

Date

FS Undergraduate Committee (undergraduate courses) Angie J. B. J.Date 9/25/07FS Curriculum Committee Kate MassengaleDate 10-5-2007Assoc. Provost for Academic Affairs Wynne M. LongDate 11/10/07

Faculty Senate

Date

Board of Regents

Date

THE UNIVERSITY OF NEW MEXICO OFFICE OF THE REGISTRAR (Revised 06/2006)

Entered Banner

Entered Catalog

For Registrar's Office ONLY:

Copies Mailed

ROUTING (All Four Collated Sets)

1. Department Chairperson
2. College Curriculum Committee
3. College or School Faculty (if necessary)
4. College or School Dean/Dean of Instruction
5. Office of the Registrar—Catalog
6. Director of relevant Library
7. FS Graduate Committee (graduate courses)
8. FS Undergraduate Committee (undergraduate courses)
9. FS Curriculum Committee
10. Assoc. Provost for Academic Affairs
11. Faculty Senate
12. Board of Regents (new degree only)

* Plan for curricular process to take at least 12 months.

This form is for Associate of Arts in Pre-Professional Secondary Education

Name of New or Existing Program

This program is or would be located in current undergraduate/graduate catalog

on page(s) UNM-LA 2006-2007 page 53

Budgetary Concerns:

There will be no impact on any budget since there are ^{no} students currently in the program, and the courses have not been offered for several semesters.

Memorandum

To: Dr. Cedric Page, Dean of Instruction
From: Dennis Davies-Wilson, Library Director
Date: March 5, 2007
Re: Deletion of AA Program in Pre-Professional Secondary Education Form C

Deletion of program will not negatively impact the library.

Current user: rickh / **Comments (9)** / Form Transaction Log**Curriculum Workflow****DEGREE/PROGRAM CHANGE
FORM C**

Fields marked with * are required

Name of Initiator: Jerome Hall Email: *jerome@unm.edu Date: * 08-21-07

Phone Number: * 505 277-1418 Initiator's Rank / Title** Professor: Civil Engineering

Faculty Contact** Jerome Hall

Administrative Contact** Josie Gibson

Department** Civil Engineering

Division

Program Construction Management

Branch

Proposed effective term:

Semester Spring

Year 2008

Course Information

Select Appropriate Program* Undergraduate Degree Program CIP Code

Name of New or Existing Program* * Construction Management

Catalog Page Number 413 Select Category * Major Degree Type BS

Select Action Revision

Exact Title and Requirements as they should appear in the catalog.

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

In the first semester of the first year, replace CHEM 111L General Chemistry/Lab 4 with ECON 106 Introductory Microeconomics 3 and change the sum of the credit hours to 15. In the first semester of the second year, replace ECON 106 Introductory Microeconomics 3 with CHEM 121L General Chemistry/Lab 4 and change the sum of the credit hours to 16. On page 413, just above the list of courses required for the degree, please change Hours required for graduation from 129 to 130. The revised program is shown on the attached file.

[CONM_07.pdf](#)☐ This Change affects other departmental program/branch campuses**Reason(s) for Request * *** (enter text below or upload a doc/pdf file)

The department has learned that CHEM 111L is primarily intended for those in health sciences. BS students in Construction Management take Math 121, 123, and 180, so they are adequately prepared for CHEM 121L. In addition, Chemistry offers more lecture sessions of CHEM 121L, so it will be easier for the students to schedule this course. The placement of CHEM 121L in the second year will all students to complete the Math prerequisites for the course.

Statements to address budgetary and Faculty Load Implications and Long-range planning* (enter text below or upload a doc/pdf file)*

The substitution of one 4 credit course with another 4 credit course from the same department does not have any budgetary consequences. Typically, about 10 construction management students per year will be affected by this change.

Approve and Sign Off**Send back to Initiator (Jerome Hall)
Comment on this Form****Committee Review**

Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, 87131-0001
Ph: (505) 277-8466 | Fax: (505) 277-7741 , Email: regcurr@unm.edu

UNM DEPARTMENT OF CIVIL ENGINEERING CONSTRUCTION MANAGEMENT (130 hrs)	
Name: _____	Student # _____
Transfer Hours Accepted: _____	Student ID _____

	Fall		Spring	
--	------	--	--------	--

			Cr	Gr	Pts				Cr	Gr	Pts
Econ	106	Intro Microeconomics	3	___	0	CS	150L	Comput for Bus Student	3	___	0
Engl	101	Comp I: Exposition	3	___	0	Engl	102	Comp II: Analys & Arg	3	___	0
Math	121	College Algebra	3	___	0	Math	123	Trigonometry	3	___	0
EPS	101	Intro to Geology	3	___	0	_____	_____	Core Humanities Elective1	3	___	0
CE	130	Construction Detailing*	3	___	0	CE	132	Construction Graphics*	3	___	0
			0		0.00	CE	171	Constr Material & Tech	3	___	0
								(UNM ME 160L can substitute for CE 132)	0		0.00

			Cr	Gr	Pts				Cr	Gr	Pts
Math	180	Elements of Calc I	3	___	0	Arch	381	Structures I	3	___	0
Chem	121L	General Chemistry/Lab	4	___	0	CE	283L	Trans System Measure	3	___	0
Phyc	151	General Physics	3	___	0	Engl	219	Technical Writing	3	___	0
CE	257	Construction Estimating	3	___	0	Mgmt	202	Prin of Finan Acctg	3	___	0
Stat	145	Introduction to Statistics	3	___	0	CE	277	Construction Scheduling	3	___	0
			0		0.00	_____	_____	Core Fine Arts Elective1	3	___	0
									0		0.00

			Cr	Gr	Pts				Cr	Gr	Pts
Arch	382	Structures II	3	___	0	CE	370	Const Mthds & Equip	3	___	0
CE	305	Civil Engineering Mtls	4	___	0	CE	350	Engineering Economy	3	___	0
CE	473	Construction Law	3	___	0	CJ	130	Public Speaking	3	___	0
CE	279	Mech & Elec Systems*	3	___	0	Mgmt Elect2			3	___	0
Mgmt	303	Managerial Accounting	3	___	0			Core Second Lang Elect1	3	___	0
			0		0.00				0		0.00

			Cr	Gr	Pts				Cr	Gr	Pts
CE	455	Engr Project Management	3	___	0	CE	409	Engineering Ethics	1	___	0
CE	474	Prin Written Const Doc	3	___	0	CE	475	Construction Safety	3	___	0
CE	477	Project Controls	3	___	0	CE	497L	Design/Construct Integ	3	___	0
CE	495	Construc Internship	1	___	0	Const Elect2	_____		3	___	0
Mgmt Elect2		_____	3	___	0	Mgmt Elect2		_____	3	___	0
_____	_____	Core Soc/Behav Sci Elect1	3	___	0	_____	_____	Core Humanities Elective1	3	___	0
			0		0.00				0		0.00

CE 8/2007

Current user: rickh / **Comments (3)** / Form Transaction Log

Curriculum Workflow

DEGREE/PROGRAM CHANGE
FORM C

Fields marked with * are required

Name of Initiator: Dolores Lopez Email: *delopez@unm.edu Date: * 09-18-07

Phone Number: * 505 277-6349 Initiator's Rank / Title** Academic Advisor: English Department

Faculty Contact** David Jones

Administrative Contact** Dee Dee Lopez

Department** English

Division

Program

Branch Main

Proposed effective term:

Semester Year

Course Information

Select Appropriate Program* CIP Code

Name of New or Existing Program* * Pre-Graduate Concentration

Catalog Page Number 186 Select Category * Degree Type ConcentrationSelect Action

Exact Title and Requirements as they should appear in the catalog.

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

Pre-Graduate Concentration (36 hours) A program for students planning to go on to graduate study in English or American Literature. ENGL 250, 294; one course chosen from 295, 296, 297; 264 or 265; 348, 349, 350, 351; 352 or 353; 354; one course chosen from 460, 461, 462, 463, 464, 465, 466, 468, 474; one course chosen from 447, 448, 449, 450, 452, 453, 454, 455, 456, 457, 458, 459, 470, 486; one course chosen from 410, 441, 442, 443, 445, 487; 6 additional hours at the 300 or 400 level.

☐ This Change affects other departmental program/branch campuses

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

Renumbering and restructuring of Medieval courses; these numbers represent the correct numbers for Medieval courses taught.

Statements to address budgetary and Faculty Load Implications and Long-range planning* (enter text below or upload a doc/pdf file)*

None needed

Approve and Sign Off

Send back to Initiator (Dolores Lopez)
Comment on this Form

Committee Review



Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, 87131-0001
Ph: (505) 277-8466 | Fax: (505) 277-7741 , Email: regcurr@unm.edu

Current user: rickh / **Comments (9)** / Form Transaction Log**Curriculum Workflow****DEGREE/PROGRAM CHANGE
FORM C**

Fields marked with * are required

Name of Initiator: David Scott Email: *dscott@unm.edu Date: * 08-09-07

Phone Number: * 505-277-2783 Initiator's Rank / Title** Chairperson: Physical Perform Dev

Faculty Contact**

Administrative Contact**

Department** Health, Exercise and Sports Sciences

Division

Program Recreation

Branch

Proposed effective term:

Semester Year **Course Information**Select Appropriate Program* CIP Code

Name of New or Existing Program* * Recreation

Catalog Page Number 3 Select Category * Degree Type Ed. Spc.Select Action **Exact Title and Requirements as they should appear in the catalog.**

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

☐ This Change affects other departmental program/branch campuses**Reason(s) for Request * *** (enter text below or upload a doc/pdf file)

There has been no Educational Specialist degree in Recreation granted at UNM in several years. The Parks and Recreation program went into moratorium in 2004 and the program was sunsetted in 2007. This Educational Specialist degree listing needs to be deleted from the list of UNM degree programs under the category of "Other Award and Degree Programs" and dropped from the catalog.

Statements to address budgetary and Faculty Load Implications and Long-range planning* (enter text below or upload a doc/pdf file)*
no implications**Approve and Sign Off****Send back to Initiator (David Scott)
Comment on this Form****Committee Review**

Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, 87131-0001
Ph: (505) 277-8466 | Fax: (505) 277-7741 , Email: regcurr@unm.edu

Current user: rickh / **Comments (9)** / Form Transaction Log**Curriculum Workflow****DEGREE/PROGRAM CHANGE
FORM C**

Fields marked with * are required

Name of Initiator: David Scott Email: *dscott@unm.edu Date: * 08-02-07

Phone Number: * 505-277-2783 Initiator's Rank / Title** Chairperson: Physical Perform Dev

Faculty Contact**

Administrative Contact**

Department** Health Exercise and Sports Sciences

Division

Program Recreation

Branch

Proposed effective term:

Semester Year **Course Information**Select Appropriate Program* CIP Code

Name of New or Existing Program* * Recreation

Catalog Page Number 2 Select Category * Degree Type BASelect Action **Exact Title and Requirements as they should appear in the catalog.**

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

☐ This Change affects other departmental program/branch campuses**Reason(s) for Request * *** (enter text below or upload a doc/pdf file)

There has been no recreation BA degree granted at UNM since 1995. The Parks and Recreation program went into moratorium in 2004 and the program was sunsetted in 2007. This BA degree listing needs to be deleted from the list of UNM degree programs under the College of Education and dropped from the catalog.

Statements to address budgetary and Faculty Load Implications and Long-range planning* (enter text below or upload a doc/pdf file)*
no implications[Approve and Sign Off](#)[Send back to Initiator \(David Scott\)
Comment on this Form](#)[Committee Review](#)

Office of the Registrar MSC06 3650 1 University of New Mexico Albuquerque, 87131-0001
Ph: (505) 277-8466 | Fax: (505) 277-7741 , Email: regcurr@unm.edu

Current user: rickh / **Comments (10)** / Form Transaction Log**Curriculum Workflow****DEGREE/PROGRAM CHANGE
FORM C**

Fields marked with * are required

Name of Initiator: Karen McElveny

Email: *kamc@unm.edu

Date: * 02-05-07

Phone Number: * 505 277-1779

Initiator's Rank / Title** Coord, Program Advisement: Chemistry General Administrative

Faculty Contact** Cary Morrow

Administrative Contact** Karen McElvany

Department** Chemistry

Division

Program Undergraduate

Branch Main

Proposed effective term:

Semester Spring

Year 2008

Course Information

Select Appropriate Program* Undergraduate Degree Program CIP Code

Name of New or Existing Program* * BS in Chemistry & Chemistry Honors

Catalog Page Number 161 Select Category * Major Degree Type BS

Select Action Revision

Exact Title and Requirements as they should appear in the catalog.

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

Chemistry 307; Chemistry 308 REGISTRAR'S OFFICE NOTE: This request is to delete CHEM 307 and 308 as options to 301 and 302 in both the BS in Chemistry and Departmental Honors in Chemistry.

☐ This Change affects other departmental program/branch campuses**Reason(s) for Request * *** (enter text below or upload a doc/pdf file)

These courses were sunsetted by the Registrar's Office and signed off by the Department of Chemistry. Chemistry 307 was deleted Fall 2005 and Chemistry 308 was deleted January 2006. They are still listed in the catalog.

Statements to address budgetary and Faculty Load Implications and Long-range planning* (enter text below or upload a doc/pdf file)*

None

Approve and Sign Off**Send back to Initiator (Karen McElveny)
Comment on this Form****Committee Review****Office of the Registrar** MSC06 3650 1 University of New Mexico Albuquerque, 87131-0001
Ph: (505) 277-8466 | Fax: (505) 277-7741 , Email: regcurr@unm.edu

FSOC Motion: Accept w/ These Modifications
Draft New Policy C130
11/27/07

POLICY CONCERNING OUTSIDE EMPLOYMENT AND CONFLICTS OF COMMITMENT

Employment as a full time, tenured, probationary, or clinician educator faculty member at the University of New Mexico in Albuquerque requires an individual's full time professional commitment and expertise. Notwithstanding this, and subject to certain restrictions, full time faculty members subject to this policy (Lecturers of all ranks are exempt from the provisions of this policy) are encouraged to engage in appropriate outside professional activities that will enhance their professional growth and reputation. Outside activities such as writing, consulting, lecturing, and similar outside endeavors contribute to the quality of both instruction and the scholarly or creative work of the faculty, bring great credit to the University and may contribute to the economic development of the state.

Conflict of Commitment

The University of New Mexico has adopted in the Faculty Handbook (Section B, Appendix V) the *Statement on Professional Ethics* of the American Association of University Professors, which includes the statement "Professors give due regard to their paramount responsibilities within their institution in determining the amount and character of work done outside it." In particular, a "conflict of commitment" exists when the external professional activities of the faculty member are so extensive and demanding of time and attention as to interfere with the individual's responsibilities to the unit to which the faculty member is assigned by contract, to students, or to the University. In particular, the time spent in outside employment may not exceed the equivalent of one workday per five day work week during the contract period. For faculty members with nine-month contracts this is the equivalent of 39 work days, and for faculty members with twelve-month contracts this is the equivalent of 52 work days per contract period.

Outside Consulting

In outside employment faculty members are paid directly by the outside entity and the University is not concerned with the amount of earnings. However, a faculty member should charge fees similar to those charged by firms or individuals doing comparable work, except when advice or services are given free in the public interest.

Prohibited Activities

Faculty members should not provide consulting or other services to an outside entity when those services would conflict or be in competition with services offered by the University itself. In undertaking outside employment the faculty member may not make use of University facilities, equipment, or personnel without prior written approval from the head of the unit responsible for the facilities or personnel. When necessary the Associate Vice President of Business/Comptroller shall determine to what extent the University shall be reimbursed for such use. Work of a routine or repetitive nature such as tests, assays, chemical analyses, bacteriological examinations, etc. which involve use of University property is prohibited except where it is considered in the public interest and where facilities or personnel for doing such work exist only at the University.

University titles, offices, addresses, and telephone numbers may not be used in city directories or similar publications for the purpose of publicizing non-University interests. Consultants must make it clear to outside employers that the work to be undertaken has no official connection with the University. The University cannot assume any responsibility for private consulting activities provided by members of the faculty.

Exceptions for Remunerated Scholarship

It is not the intent of the University to restrict expected scholarly activities of faculty members. In some disciplines, such as the performing arts, professional activity may be remunerated. In many disciplines scholarly service activities such as reviewing, colloquia presentations, etc., are compensated by small honoraria beyond expenses. Such activities, referred to as "remunerated scholarship" generally relate to research or creative work that is expected in a faculty member's discipline. Teaching outside the contracted department for compensation [see **Policy C140**] is not considered to be remunerated scholarship. Such activities would normally be added to a c.v. and be considered in promotion, tenure, merit pay, etc. Activities of remunerated scholarship need not be reported and the hours so spent do not count against the 39

or 52 workday limit unless the Chair or Director finds the extent of such activities threatens a faculty member's ability to carry out his/her regular University duties. In this case approval to continue this activity should be sought.

Reference: See also Regents Policy Manual 5.5

COMPLIANCE

Intentional failure to comply with the provisions of this policy will be considered a violation of university policy and may lead to appropriate corrective action which can include censure, warning, disciplinary probation, or dismissal, as set forth in the *Faculty Handbook*.

PROCEDURES REGARDING OUTSIDE EMPLOYMENT

In consultation with the academic units the offices of the Provost and the Executive Vice President for Health Sciences will be responsible for developing and communicating procedures for this policy. The procedures should address at least the following requirements:

- Notification of outside employment
- Chair/Director/Dean monitoring, reporting, and enforcement responsibilities
- Process for Exceptions to this policy
- Faculty reporting
- Written approval
- Records and supporting documentation maintenance
- Documentation supporting appeals
- Calculations used to monitor the 39/52 day rule

FSOC Motion: Accept w/ These Modifications

Draft New Policy C130

~~10/18/07~~ 11/27/07

POLICY CONCERNING OUTSIDE EMPLOYMENT AND CONFLICTS OF COMMITMENT

Employment as a full time, tenured, probationary, or clinician educator faculty member at the University of New Mexico in Albuquerque requires an individual's full time professional commitment and expertise. Notwithstanding this, and subject to certain restrictions, full time faculty members subject to this policy ~~(Lecturers of all ranks are exempt from the provisions of this policy)~~ ~~(Lecturers of all ranks, staff members, and branch campus faculty, are exempt from the provisions of this policy)~~ are encouraged to engage in appropriate outside professional activities that will enhance their professional growth and reputation. Outside Activities activities such as writing, consulting, lecturing, ~~serving as an elected officer of a professional organization or editor of a scholarly journal~~, and similar outside endeavors contribute to the quality of both instruction and the scholarly or creative work of the faculty, bring great credit to the University and may contribute to the economic development of the state.

Conflict of Commitment

The University of New Mexico has adopted in the Faculty Handbook (Section B, Appendix V) the *Statement on Professional Ethics* of the American Association of University Professors, which includes the statement "Professors give due regard to their paramount responsibilities within their institution in determining the amount and character of work done outside it." In particular, a "conflict of commitment" exists when the external professional activities of the faculty member are so extensive and demanding of time and attention as to interfere with the individual's responsibilities to the unit to which the faculty member is assigned by contract, to students, or to the University. In particular, the time spent in outside employment may not exceed the equivalent of one workday per five day work week during the contract period. For faculty members with nine-month contracts this is the equivalent of 39 work days, and for faculty members with twelve-month contracts this is the equivalent of 52 work days per contract period.

Outside Consulting

In outside employment faculty members are paid directly by the outside entity and the University is not concerned with the amount of earnings, ~~so long as the outside work does not constitute a conflict of commitment~~. However, a faculty member should charge fees similar to those charged by firms or individuals doing comparable work, except when advice or services are given free in the public interest.

Prohibited Activities

Faculty members should not provide consulting or other services to an outside entity when those services would conflict or be in competition with services offered by the University itself. In undertaking outside employment the faculty member may not make use of University facilities, equipment, or personnel without prior written approval from the head of the unit responsible for the facilities or personnel, ~~and of the Associate Vice President for Business/Comptroller~~. When necessary the Associate Vice President of Business/Comptroller who shall determine to what extent the University shall be reimbursed for such use. ~~Except when a governmental agency is involved, authorization for use of University facilities will not be given when comparable facilities are available in the immediate area or when the project will involve use of equipment on a continuing basis.~~ Work of a routine or repetitive nature such as tests, assays, chemical analyses, bacteriological examinations, etc. which involve use of University property is prohibited except where it is considered in the public interest and where facilities or personnel for doing such work exist only at the University.

University titles, offices, addresses, and telephone numbers may not be used in city directories or similar publications for the purposes of publicizing non-University interests. Consultants must make it clear to outside employers that the work to be undertaken has no official connections with the University. The University cannot assume any responsibility for private consulting activities provided by members of the faculty.

Exceptions: for Remunerated Scholarship

It is not the intent of the University to restrict expected scholarly activities of faculty members. In some disciplines, such as the performing arts, professional activity may be remunerated. In many disciplines scholarly service activities such as reviewing, colloquia presentations, etc., are compensated by small honoraria beyond expenses. Such activities, referred to as "remunerated scholarship" generally relate to research or creative work that is expected in a faculty member's

discipline. ~~(Teaching outside the contracted department for compensation [see Policy C140] is not considered to be remunerated scholarship).~~ Such activities would normally be added to a c.v. and be considered in promotion, tenure, merit pay, etc. Activities of remunerated scholarship need not be reported and the hours so spent do not count against the 39 or 52 workday limit unless the Chair or Director finds the extent of such activities threatens a faculty member's ability to carry out his/her regular University duties. In this case approval to continue this activity should be sought.

Reference: See also Regents Policy Manual 5.5

COMPLIANCE

Intentional failure to comply with the provisions of this policy will be considered a ~~serious~~ violation of university policy and ~~may lead to appropriate corrective action which can include~~ ~~may lead to~~ censure, warning, disciplinary probation, or dismissal, as set forth in the *Faculty Handbook*.

~~Compliance with this and other Faculty Handbook policies is governed by policy C05 (rights and responsibilities at the University of New Mexico).~~

PROCEDURES REGARDING OUTSIDE EMPLOYMENT

In consultation with the academic units the offices of the Provost and ~~the~~ Executive Vice President for the Health Sciences ~~Center~~ will be responsible for developing and communicating procedures for ~~compliance with~~ this policy. The procedures should address at least the following requirements, ~~but may be more stringent for effective monitoring of the policy.~~

- Notification of outside employment
- Chair/Director/Dean/Director monitoring, reporting, and enforcement responsibilities
- Process for Exceptions to this policy ~~process~~
- Faculty reporting
- Written approval
- Records and supporting documentation maintenance
- Documentation supporting appeals
- Calculations used to monitor the 39/52 day rule

FSOC Motion: Accept with these changes:
Draft New Policy C140
11/27/07

POLICY CONCERNING EXTRA COMPENSATION PAID BY THE UNIVERSITY

The interests of the University may be well served by professional activities conducted by faculty members outside of their normal departmental duties. With approvals specified in this policy, faculty members performing such activities may receive extra compensation from the University. Such activities may not replace or diminish the ability of the faculty member to fulfill his/her normal contractual responsibilities. Prior approval of such activities for extra compensation will be contingent on determinations by cognizant supervisors that the activities are in the best interests of the University.

- 1 Full time regular faculty members may receive extra compensation from the University for additional work done in connection with University-related activities provided that:
 - a) The faculty member wishes to pursue the opportunity for extra compensation;
 - b) Advance approval in writing is given by the Chair of the faculty member's contract department and the Dean or Director of the College or School that houses that department;
 - c) The work done for extra compensation does not in the opinion of the approving authorities:
 - i) Conflict in time with regular University duties and assignments;
 - ii) Constitute a "conflict of interest" situation for the faculty member;
 - iii) Come within the scope of the faculty member's regular responsibilities for which compensation is already being paid.
- 2 The work for extra compensation does not count against the workdays allowed for outside employment. (See Policy C130).
- 3 Extra compensation using funds from research grants or contracts must conform to research policies.
- 4 Extra compensation for teaching beyond the scope of the faculty member's regular teaching responsibilities shall be paid through a STC (Special Teaching Component) on the regular faculty contract. Requests for contracts that include STC's shall be made prior to engaging in the activity by way of a Contract Memorandum that has the approval of the faculty member's chair or director and dean, the administrator of the department for which the special teaching is being done, and the Deputy Provost or the Executive Vice President for Health Sciences.
- 5 Other kinds of special assignments shall be paid on an Extra Compensation Form. The rate of extra compensation will be proposed by the head of the requesting unit.

Reference: See also Regents Policy Manual 5.6

COMPLIANCE

Intentional failure to comply with the provisions of this policy will be considered a violation of university policy and may lead to appropriate corrective action which can include censure, warning, disciplinary probation, or dismissal, as set forth in the *Faculty Handbook*.

PROCEDURES REGARDING EXTRA COMPENSATION

In consultation with the academic units, the Offices of the Provost and Executive Vice President for the Health Sciences will be responsible for developing procedures for compliance with this policy. The procedures should include the following items, but may be more stringent for effective monitoring of the policy.

- Requirements for approval by the approving authority (Advance written approval is not required for periods of activity consisting of two days or less per semester)
- Requirements for STC approvals and payments
- Faculty reporting and compliance responsibilities
- Required signatory approvals
- Deans/Directors monitoring and enforcement responsibilities
- Maintenance of Records and supporting documentation

FSOC Motion: Accept with these changes:

Draft New Policy C140

~~10/18/07~~ 11/27/07

POLICY CONCERNING EXTRA COMPENSATION PAID BY THE UNIVERSITY

The interests of the University may be well served by professional activities conducted by faculty members outside of their normal departmental duties. With approvals specified in this policy, faculty members performing such activities may receive extra compensation from the University. Such activities may not replace or diminish the ability of the faculty member to fulfill his/her normal contractual responsibilities. Prior approval of such activities for extra compensation will be contingent on determinations by cognizant supervisors that the activities are in the best interests of the University.

1 Full time regular faculty members may receive extra compensation from the University for additional work done in connection with University-related activities provided that:

a)

~~1.~~ The faculty member wishes to pursue the opportunity for extra compensation;

b)

~~2.~~ Advance approval in writing is given by the Chair of the faculty member's contract department and the Dean or Director of the College or School that houses that department;

c)

~~3.~~ The work done for extra compensation does not in the opinion of the approving authorities:

i)

~~a)~~ Conflict in time with regular University duties and assignments;

b)

~~ii)~~ Constitute a "conflict of interest" situation for the faculty member;

iii)

~~c)~~ Come within the scope of the faculty member's regular responsibilities for which compensation

is

~~s~~ already being paid.

~~32~~ ~~4.~~ The work for extra compensation does not count against the workdays allowed for outside employment. (See "Policy C130).

~~4.~~ Faculty members requesting approval for extra compensation shall submit documentation on teaching load (courses taught, credit hours, enrollment numbers) plus other regular departmental responsibilities on the form "Request for Extra Compensation for Faculty Members" found at [link].

~~543~~ ~~5.~~ Extra compensation using funds from research grants or contracts must conform to research policies and also be approved by the Vice President for Research and Economic Development, or the Executive Vice President for the Health Sciences Center, as appropriate.

~~4~~ ~~6.~~ For full-time faculty on 12-month contracts in the Health Sciences Center (HSC), a request for approval for extra compensation shall include documentation on teaching load (courses taught, credit hours, enrollment numbers, or equivalent information) plus other regular departmental responsibilities on the form "Request for Extra Compensation for Faculty Members" found at [link]. In addition, the information specified above is to be supplemented as follows: the documentation must also include current effort allocation and most recent performance evaluations, and prior approval for the payment of extra compensation using extramural grant or contract funds must be obtained from the HSC Associate Vice President for Financial Services.

~~7.~~ Extra compensation for teaching beyond the scope of the faculty member's regular teaching responsibilities shall be paid through a STC (Special Teaching Component) on the regular faculty contract. Requests for contracts that

-include STC's shall be made prior to engaging in the activity by way of a Contract Memorandum that has the approval of the faculty member's chair or director and dean, the administrator of the department for which the special teaching is being done, and the Deputy Provost or the Executive Vice President for Health Sciences.

85 -Other kinds of special assignments shall be paid on an Extra Compensation Form. The rate of extra compensation will be proposed by the head of the requesting unit.

Either STC or other extra compensation shall not exceed the proportionate share of the base salary of the period in which the work is to be performed. Exceptions must have the advance approval of the Deputy Provost or the Executive Vice President for Health Sciences, as appropriate. (For example, a person on a nine-month appointment shall not normally be paid more than 1/195 of the regular nine-month salary for each eight-hour day of work done on the STC assignment. The corresponding fraction for twelve-month appointments is 1/260 for each eight-hour day. Shorter times will be prorated).

9. Special assignments involving extra compensation within the 1/195 and 1/260 limits will not count against the 39 and 52 workday limits (point 3, above). Special assignments that are similar in nature to activities carried out by faculty members in situations of Outside Employment (see Policy C130) can be compensated at greater rates, but will then count against the 39 and 52 workday limits.

~~10. Requests for contracts that include STC's shall be made prior to engaging in the activity by way of a Contract Memorandum that has the approval of the faculty member's chair and dean, the administrator of the department for which the special teaching is being done, and the Deputy Provost or the Executive Vice President for Health Sciences.~~

Reference: See also Regents Policy Manual 5.6

COMPLIANCE

Intentional failure to comply with the provisions of this policy will be considered a violation of university policy and may lead to appropriate corrective action which can include censure, warning, disciplinary probation, or dismissal, as set forth in the *Faculty Handbook*.

Compliance with this policy is governed by Faculty Handbook Policy C05 (rights and responsibilities at the University of New Mexico).

Intentional failure to comply with the provisions of this policy will be considered a serious violation of university policy and may lead to censure, warning, disciplinary probation, or dismissal, as set forth in the *Faculty Handbook*.

PROCEDURES REGARDING EXTRA COMPENSATION

In consultation with the academic units, the Offices of the Provost and ~~the~~ Executive Vice President for the Health Sciences ~~Center~~ will be responsible for developing procedures for compliance with this policy. The procedures should include the following items, but may be more stringent for effective monitoring of the policy.

- ~~Advance written approval over a reasonable lower limit, such as two workdays or \$250 is not required for periods of activity consisting of two days or less.~~
- Requirements for approval by the approving authority (Advance written approval is not required for periods of activity consisting of two days or less per semester.)
- ~~How to report teaching load and regular department duties~~
- Requirements for STC approvals and payments
- Faculty reporting and compliance responsibilities
- Required signatory approvals
- Deans/Directors monitoring and enforcement responsibilities
- Maintenance of Records and supporting documentation

Faculty Senate Policy Committee Charge

The primary role of the Policy Committee shall be to support the University's overall purpose, principles, and goals. In the interest of shared governance, the functions of the committee shall include, but not be limited to initiating, formulating, recommending, and reviewing all policies of the University that impact the faculty. The charge to this committee is as follows:

- Review, as necessary, policies of the Regents' Handbook, Faculty Handbook, Constitution, University Business Policies and Procedures, and the Pathfinder;
- Consult and collaborate with administrators with respect to policies in documents other than in the Faculty Handbook;
- Communication of policies across the campuses after Faculty Senate approval, full faculty approval, or as per policy history; and
- Review policies developed by other standing committees.

The Policy Committee membership will be comprised of seven voting faculty from UNM (none of whom are from the same department). At the committee's request, an attorney from the University Counsel's office with primary responsibilities for policy issues shall attend committee meetings and provide legal advice to the Policy Committee. The terms of office shall be for three years, set up on a staggered basis so that the terms of at least three members will expire each year. Members can be appointed for a second three-year term. The chair is elected by the Committee and normally will serve a renewable two-year term. The Committee annually selects a Vice-Chair to serve in place of the chair in his/her absence. In addition to the Committee members, subcommittee membership will be augmented with other faculty, administrators, staff, and students as required for specific subcommittee tasks.