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OCT 14 2008

FORM C - DEGREE/PROGRAM CHANGE

CIP CODE

Date: 9/15/08

Olen P. Matthews  
(Name of individual initiating curricular change form)

Professor, Chair, 277-5041  
(Title, position, telephone number)

opmatt@unm.edu  
(Email address)

Geography  
(Department/Division/Program/Branch)

Assigned by Associate Provost for Academic Affairs

- 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.

Mark Appropriate Program:

Undergraduate Degree Program

Graduate Degree Program (For existing degree only)

This form is for Bachelor of Arts Degree  
Name of New or Existing Program

This program is or would be located in current undergraduate/graduate catalog on page(s) 211-212

Mark appropriate category:	NEW	REVISION OF	DELETION	NAME CHANGE
Degree Type BA	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Undergraduate degree only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Major	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Minor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Concentration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Certificate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Emphasis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Department	<input type="checkbox"/>	NA	<input type="checkbox"/>	<input type="checkbox"/>
Subject Code	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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 attachment: Bachelor of Arts Degree Changes.

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

See attachment: Reasons for Request.

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 2009

Required Signatures:

Department Chair	<u>Olen P. Matthews</u>	Date	<u>Oct. 14, 2008</u>
College Curriculum Committee	_____	Date	_____
College or School Faculty (if necessary)	_____	Date	_____
College or School Dean/Dean of Instruction	<u>[Signature]</u>	Date	<u>11/12/08</u>
Office of the Registrar—Catalog	<u>[Signature]</u>	Date	<u>11/05/08</u>
Director of relevant Library	<u>[Signature]</u>	Date	<u>11-7-08</u>
FS Graduate Committee (graduate courses)	_____	Date	_____
FS Undergraduate Committee (undergraduate courses)	<u>[Signature]</u>	Date	<u>1/16/08</u>
FS Curriculum Committee	<u>[Signature]</u>	Date	<u>3-5-08</u>
Assoc. Provost for Academic Affairs	<u>[Signature]</u>	Date	<u>3/11/09</u>
Faculty Senate	_____	Date	_____
Board of Regents	_____	Date	_____

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Entered Catalog

For Registrar's Office ONLY.

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## Bachelor of Arts Degree Changes

**Current** BA degree with **changes marked in [ ]** is below:

The required curriculum for the Bachelor of Arts degree is as follows:

	Credits
GEOG 101 Physical Geography	3
GEOG 105L Physical Geography Lab	1
GEOG 102 Human Geography	3
GEOG 195 [Survey of Environmental Issues]	3
GEOG 281L [Survey of Geographic Information Science]	4
[One course Physical Environment Group]	3
Two courses Environmental Management Group	6
[One Course Geographic Information Science Group]	3 - 4
One Course Regional Group	3
[GEOG 470]	1
GEOG 471 Applied Geography Seminar	3
Electives [Any two 300- or 400-level Geog Course]	6
39 - 40	

Courses included in each of the above groups are as follows:

- [Physical Environment Group: 351, 352, 356, 359.]
- Environmental Management Group: 360, 363, 367, 461, 462, 463, 465.
- [Geographic Information Science Group: 381L, 383, 386, 483L, 484, 487L, 488L]
- Regional Group: 140, 302, [344, 345].

Students desiring to focus their plan of study on environmental management should consider additional courses from: American Studies 320, 323, 324; Anthropology 321; Biology 310L 379, 405; Earth and Planetary Science 330, 333, 430; Economics 105, 203, 300, 342, 343, 442; History 433, 464; and Political Science 475.

**Proposed** BA degree requirements with **changes marked in [ ]**.

The required curriculum for the Bachelor of Arts degree is as follows:

	Credits
GEOG 101 Physical Geography	3
GEOG 105L Physical Geography Lab	1
GEOG 102 Human Geography	3
GEOG 195 [Humans as Modifiers of the Earth]	3
GEOG 281L [Computer Mapping]	4
[GEOG 350 Physical Landscapes]	3
[GEOG 381L Introduction to Geographic Information Systems]	4
Two courses Environmental Management Group	6
One Course Regional Group	3
[One Course Human Geography Group]	3
GEOG 471 Applied Geography Seminar	3
Electives [Any 200, 300- or 400-level GEOG Course]	3
39	

Courses included in each of the above groups are as follows:

- Environmental Management Group: 461, 462, 463, 464.
- Regional Group: 140, 302, [445].
- [Human Geography Group: 360, 363, 365]

Students desiring to focus their plan of study on environmental management should consider additional courses from: American Studies 320, 323; Anthropology 321; Biology 310L 379, 405; Earth and Planetary Science [ENVS] 330, [EPS] 333, [ENVS]430; Economics 105, 203, 300, 342, 343, 442; History 433, 464; and Political Science 475.

## Reasons for Request

The Geography Department went through academic program review in the Spring of 2008. The reviewers suggested the Department focus its B.A. degree on Environmental Management. They also recommended the Department tighten up its course offering to reflect this orientation in the B.A. degree. Many courses are being dropped and added as a result of these suggestions. This has required a revision of the degree requirements.

## Budgetary and Faculty Load Implications and Long Term Planning

As a result of the Academic Program Review recommendations, the Department's course offering will be more focused. The Department's revitalized degree programs will require a smaller Part-time/Temporary Budget. Currently the Department offers 18 courses each year with Part-time/Temporary faculty. With the revisions in place this will be reduced to 10 courses per year. Most of these courses are evening or weekend courses or will be taught by experts in GIScience currently employed at UNM's Earth Data Analysis Center. A course rotation list is included to show that the faculty can cover the changes. Also included is a list of course changes so the total number of courses dropped, modified, or added can be seen.

Department of Geography  
Bachelor of Arts in Geography  
Plan for Assessment of Student Learning Outcomes  
The University of New Mexico

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**A. College, Department and Date**

1. College: *College of Arts & Science*
2. Department: *Department of Geography*
3. Date: *May 15, 2008*

**B. Academic Program of Study**

*B.A. Geography*

**C. Contact Person for the Assessment Plan**

*Maria Lane, Assistant Professor, mdlane@unm.edu*

**D. Broad Program Goals & Measurable Student Learning Outcomes**

**1. Broad Program Learning Goals for this Degree Program**

These goals reflect the Department's overarching mission to promote, develop, and improve spatial literacy through all of its programs.

- A. Students will develop an ability to see meaning in the arrangement of things in space.
- B. Students will develop an ability to see relationships between people, places, and the environment.
- C. Students will become geographical problem-solvers capable of using qualitative, quantitative and/or spatial methods of analysis.
- D. Students will become clear and effective communicators.

**2. List of Student Learning Outcomes (SLOs) for this Degree Program**

- A.1. Students will be able to explain a prominent geographic pattern using core geographic concepts.
- B.1. Students will be able to analyze the relationships that influence human-environment interaction in a specific location at a specific time.
- C.1. Students will be able to identify the geographic contexts relevant to an inquiry.
- C.2. Students will be able to acquire and manipulate data relevant to a geographic inquiry.
- C.3. Students will be able to assess the results of a data-driven geographical inquiry.
- D.1. Students will be able to communicate clearly and effectively in an oral format.
- D.2. Students will be able to communicate clearly and effectively in a written format.

**E. Assessment of Student Learning Three-Year Plan**

**1. Priority Student Learning Outcomes**

Over the next three years (2008-2011), the Department of Geography will assess all of the learning outcomes listed above. These program outcomes are responsive to UNM's broad student learning goals, as shown in the following table.

University of New Mexico Student Learning Goals				
Program SLOs	Knowledge	Skills	Responsibility	Program SLO is conceptually different from university goals.
A.1. Students will be able to explain a prominent geographic pattern using core geographic concepts.	X	X		
B.1. Students will be able to analyze the relationships that influence human-environment interaction in a specific location at a specific time.	X	X	X	
C.1. Students will be able to identify the geographic contexts relevant to an inquiry.	X	X	X	
C.2. Students will be able to acquire and manipulate data relevant to a geographic inquiry.		X	X	
C.3. Students will be able to assess the results of a data-driven geographical inquiry.		X	X	
D.1. Students will be able to communicate clearly and effectively in an oral format.		X	X	
D.2. Students will be able to communicate clearly and effectively in a written format.		X	X	

**2. How will learning outcomes be assessed?**

Learning outcomes will be assessed using a variety of measures that collect evidence of learning from students enrolled in the senior capstone course (GEOG 471) each year. These measures are described fully on the following page.

Note: The B.A. program currently has a moderate enrollment, so this assessment plan is designed to include evidence from all students who graduate from the program during each three-year assessment cycle. When the program begins to experience significant growth, a sampling method will be devised.

## 2. How will learning outcomes be assessed? (continued)

### MEASUREMENT PROCESS #1

#### **Outcome:**

- A.1. Students will be able to explain a prominent geographic pattern using core geographic concepts.

#### **Measurement Process:**

- i. Assessment of this outcome will use students' written responses to scenario assignments as evidence of student learning. These assignments will be designed by the GEOG 471 instructor in conjunction with the undergraduate advisor, subject to approval by the voting faculty. Each assignment will present students with a scenario that illustrates a particular spatial pattern and will be asked to explain its probable cause in terms of core geographic concepts (such as scale, diffusion, distance, etc.) The students will complete each assignment with a written response, and the instructor will copy and file the students' written answers for assessment purposes. Note: Two of these scenario assignments will be embedded each semester in the regular grade structure of the course to provide a standard performance incentive. On each of the two assigned scenarios, different core geographic concepts will be relevant. Only one scenario assignment will be assessed each year.
- ii. This is a direct measurement.
- iii. The program performance target for these outcomes is defined as "acceptable" or better performance by 75% of Geography seniors. The standards for "acceptable" are outlined in the attached Rubric A, which will be given to students in advance.

### MEASUREMENT PROCESS #2

#### **Outcome:**

- B.1. Students will be able to analyze the relationships that influence human-environment interaction in a specific location at a specific time.

#### **Measurement Process:**

- i. Assessment of this outcome will use students' written responses to case-study assignments as evidence of student learning. These assignments will be designed by the GEOG 471 instructor in conjunction with the undergraduate advisor, subject to approval by the voting faculty. Each assignment will present a group of students with a case study (including data and contextual material) and a set of analytical questions regarding spatial relationships and patterns. The students will complete the assignment with a written report, and the instructor will copy and file each group's written answers for assessment purposes. Note: these assignments will be embedded in the regular grade structure of the course to provide a standard performance incentive.
- ii. This is a direct measurement.
- iii. The program performance target for these outcomes is defined as "acceptable" or better performance by 75% of Geography seniors. The standards for "acceptable" are outlined in the attached Rubric A, which will be given to students in advance.

2. How will learning outcomes be assessed? (continued)

**MEASUREMENT PROCESS #3**

**Outcomes:**

- C.1. Students will be able to identify the geographic contexts relevant to an inquiry.
- C.2. Students will be able to acquire and manipulate data relevant to a geographic inquiry.
- C.3. Students will be able to assess the results of a data-driven geographical inquiry.

**Measurement Process:**

- i. The capstone course is typically organized around student development and completion of a senior research project, which is presented in both oral and written formats at the end of the course. The project will be considered as evidence of learning in the assessment of all three of these outcomes. Each project will be selected by the student, with the assistance of the GEOG471 instructor, and will be oriented toward a geographic inquiry that can be answered via core methods in spatial analysis.
- ii. This is a direct measurement.
- iii. The program performance target for these outcomes is defined as "acceptable" or better performance by 75% of Geography seniors. The standards for "acceptable" are outlined in Rubric B, which will be given to students in advance.

**MEASUREMENT PROCESS #4**

**Outcome:**

- D.1. Students will be able to communicate clearly and effectively in an oral format.

**Measurement Process:**

- i. Assessment of this outcome will use each student's oral presentation of the final research project as evidence of student learning.
- ii. This is a direct measurement.
- iii. The program performance target for this outcome is defined as "acceptable" or better performance by 75% of graduating students. The standard for "acceptable" is defined in the attached Rubric C, which will be given to students in advance.

**MEASUREMENT PROCESS #5**

**Outcome:**

- D.2. Students will be able to communicate clearly and effectively in a written format.

**Measurement Process:**

- i. Assessment of this outcome will use each student's written report of the final research project as evidence of student learning.
- ii. This is a direct measurement.
- iii. The program performance target for this outcome is defined as "acceptable" or better performance by 75% of graduating students. The standard for "acceptable" is defined in the attached Rubric C, which will be given to students in advance.

3. When will learning outcomes be assessed? When and in what forum will the results of the assessment be discussed?

Assessment of student learning in the B.A. program will be conducted every semester that the senior capstone course (GEOG 471) is offered, typically once per year in the spring semester. A committee of three Geography faculty members will be tasked with assessment duties, which will include:

- i. attending student presentations in the GEOG 471 course,
- ii. reading student research reports and written responses to the case-study assignments, and
- iii. completing all relevant rubrics at the end of the semester.

### 3. When will learning outcomes be assessed? (continued)

The course instructor will communicate with this committee during the semester and will make copies of all relevant materials, such as the case-study assignments and the research reports.

Note: Although students will be given two scenario assignments and one case-study assignment per year, only one of the three will be assessed in any given year. Outcomes A.1 will be assessed twice every three years, and outcome B.1 will be assessed once every three years. All other outcomes will be assessed each time GEOG 471 is offered. (See timeline below.)

Completed rubrics will be placed in an assessment file (to be administered by the departmental Assessment Coordinator) as soon as they are completed. Each summer, the Assessment Coordinator will produce an annual report on the number of students assessed and the average scores recorded for each outcome. This report will be distributed to the entire faculty and to the Advisory Board.

Modifications to the assessment instruments/methods will be discussed each year at the annual faculty retreat. Changes in program curriculum/pedagogy will be discussed every third year, beginning in summer 2011. (See next section for details regarding this process.)

#### TIMELINE

- **Summer 2008**
  - appointment of Assessment Coordinator
  - assignment of assessment duties for 2008-2009
- **Spring 2009**
  - assessment of outcomes A.1, C.1, C.2, C.3, D.1, D.2
- **Summer 2009**
  - annual report compiled/distributed
  - faculty review of assessment procedures
  - assignment of assessment duties for 2009-2010
- **Spring 2010**
  - assessment of outcomes A.1, C.1, C.2, C.3, D.1, D.2
- **Summer 2010**
  - annual report compiled/distributed
  - faculty review of assessment procedures
  - assignment of assessment duties for 2010-2011
- **Spring 2011**
  - assessment of outcomes B.1, C.1, C.2, C.3, D.1, D.2
- **Summer 2011**
  - annual report compiled/distributed
  - faculty review of assessment procedures
  - faculty review of B.A. program
  - assignment of assessment duties for 2011-2012

### 4. What is the unit's process to analyze/interpret assessment data and use results to improve student learning?

All members of the Geography faculty will participate in the assessment process at various levels, as described below.



- a) Evidence will be gathered by the regular instructor of GEOG 471 through the following assignments: scenario analyses, a case-study analysis, a research report, and a research presentation.
- b) Analysis of these direct measures will be conducted by three members of the Geography faculty, who will use a standard scoring rubric in their work (see attached).
- c) Annual reports will be prepared by the Assessment Coordinator and circulated to the full faculty and the advisory board.
- d) Given the small size of the Geography faculty, interpretation of all measurements will be conducted by the faculty as a whole. Annual reports will be used as a basis for discussing assessment mechanisms/procedures (on an annual basis) as well as curricular design and pedagogical approaches (every third year). Priority areas for discussion at the annual faculty retreat will include:

2009, 2010, 2011

- Quality of data collected
- Completeness of data collected
- Reliability of data collected
- Potential improvements to measurement instruments
- Potential improvements to assessment procedures
- Assignment of assessment responsibilities for the coming year

2011

- Student performance levels on each outcome
  - Potential explanations for any missed targets
  - Desired improvements to student learning
  - Curricular approaches to improving student learning
  - Pedagogical approaches to improving student learning
  - Modifications to program goals and outcomes
  - Modifications to performance targets
- e) Recommendations will be voted on by the entire faculty and will be circulated annually to the advisory board, the Dean of Arts and Sciences, and the Provost's Office of Assessment.

**RUBRIC A: COMPETENCIES IN SPATIAL EXPLANATION**

Program Outcomes	Criteria for Acceptable Performance	Assessment			
		Superior	Good	Acceptable	Not Acceptable
A.1. Students will be able to explain a prominent geographic pattern using core geographic concepts.	1. Describes the pattern shown in the scenario.				
	2. Explains reasons for the pattern's existence or changes in it.				
	3. Uses relevant core geographic concepts in explanation.				
	4. Uses core geographic concepts correctly.				
B.1. Students will be able to analyze the relationships that influence human-environment interaction (HEI) in a specific location at a specific time.	1. Correctly identifies relevant geographic elements that influence HEI in the case study.				
	2. Correctly characterizes HEI in the case study.				
	3. Discusses the relative influence of multiple factors relevant to the HEI.				
	4. Analyzes cause and effect relationships using appropriate concepts.				

**RUBRIC B: COMPETENCIES IN SPATIAL PROBLEM-SOLVING**

Program Outcomes	Criteria for Acceptable Performance	Assessment			
		Superior	Good	Acceptable	Not Acceptable
C.1. Students will be able to identify the geographic contexts relevant to an inquiry.	1. Describes an issue or problem.				
	2. Explains how the topic is relevant to geography.				
	3. Uses relevant literature to explain the context of the issue or problem.				
C.2. Students will be able to acquire and manipulate data relevant to a geographic inquiry.	1. Identifies data sources needed to solve the issue or problem.				
	2. Relevance of the data sources is explained.				
	3. Data is analyzed in a way appropriate for solving the issue or problem.				
C.3. Students will be able to assess the results of a data-driven geographical inquiry.	1. Draws conclusions.				
	2. Assesses limitations of the research and its conclusions.				

RUBRIC C: COMPETENCIES IN COMMUNICATION

Program Outcomes	Criteria for Acceptable Performance	Assessment			
		Superior	Good	Acceptable	Not Acceptable
D.1. Students will be able to communicate clearly and effectively in an oral format.	1. Presentation style is appropriate.				
	2. Presentation includes visual aids appropriate for a geography presentation.				
	3. Presentation is well organized.				
	4. The presentation adheres to the stated time limits without rushing.				
D.2. Students will be able to communicate clearly and effectively in a written format.	1. The report is clearly written.				
	2. The report is well organized.				
	3. Maps and other graphics are easy to read and serve as appropriate illustrations to the text.				