

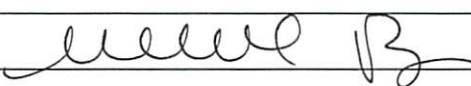
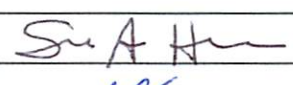
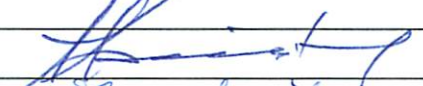
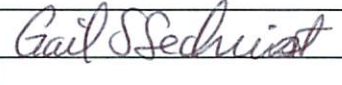
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LSC Use Only No:	LSC Action-Date:	UWUCC USE Only No.	UWUCC Action-Date:	Senate Action Date:
		07-43JJ	App-10/14/08	App-2/24/09

Curriculum Proposal Cover Sheet - University-Wide Undergraduate Curriculum Committee

Contact Person Michael A. Poage	Email Address mpoage@iup.edu
Proposing Department/Unit Geosciences - Natural Sciences and Mathematics	Phone 724-357-5627

Check all appropriate lines and complete information as requested. Use a separate cover sheet for each course proposal and for each program proposal.

1. Course Proposals (check all that apply) ☒ New Course ☐ Course Prefix Change ☐ Course Deletion ☐ Course Revision ☐ Course Number and/or Title Change ☐ Catalog Description Change		
<u>Current</u> Course prefix, number and full title		GEOS 401 Northern Rockies Seminar <u>Proposed</u> course prefix, number and full title, if changing
2. Additional Course Designations: check if appropriate ☐ This course is also proposed as a Liberal Studies Course. ☐ Other: (e.g., Women's Studies, Pan-African) ☐ This course is also proposed as an Honors College Course.		
3. Program Proposals ☐ New Degree Program ☐ Program Title Change ☐ Program Revision ☐ New Minor Program ☐ New Track ☐ Other ☐ Catalog Description Change		
<u>Current</u> program name		<u>Proposed</u> program name, if changing
4. Approvals		
Department Curriculum Committee Chair(s)		Date 2/4/08
Department Chair(s)		2/4/08
College Curriculum Committee Chair		2-11-08
College Dean		2-11-08
Director of Liberal Studies *		
Director of Honors College *		
Provost *		
Additional signatures as appropriate: (include title)		
UWUCC Co-Chairs		10/14/08

* where applicable

Received

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SEP 25 2008

FEB 14 2008

Liberal Studies Liberal Studies

Part II. Description of Curricular Change

1. SYLLABUS OF RECORD

I. Catalog Description

GEOS 401 Northern Rockies Seminar

1c-0l-1cr

Prerequisite: Grade of C or better in GEOS 201 and GEOS 202; instructor permission required

A seminar introduction to the geology and tectonic history of the northern Rocky Mountains. Includes instruction in the techniques of field mapping and geologic interpretation. Designed to prepare students specifically for GEOS 402.

II. Course Objectives

At the end of this course students will be able to:

- 1) Summarize the regional geology of the Northern Rockies and modern scientific controversies concerning their geologic history
- 2) Describe and interpret rock types and geologic features observed in the Northern Rockies region.
- 3) Synthesize information about the tectonic history of the Northern Rockies.
- 4) Utilize basic skills and tools used during field studies and investigations including but not limited to use of the Brunton compass, global positioning systems (GPS), field mapping, and the generation of geologic cross sections.

III. Course Outline

Part A (7 academic hours): Introduction to the Geology and Tectonic Setting of the Rocky Mountains

1. Rocks and ancient environments of the Rocky Mountains
2. Tectonic history and interpretations of Rocky Mountain uplift
3. Physical processes and their impact on geological features

Part B (6 academic hours): Field Skills and Observations

1. Use of the Brunton compass and global positioning systems (GPS)
2. Geological map construction and interpretation
3. Construction of geological profiles and subsurface stratigraphy

Final exam during final class period (1 academic hour)

IV. Evaluation Methods

Each component of the course will contribute to final grade according to:

Final Exam	50%
<u>Practical Exercises</u>	<u>50%</u>
Total	100%

V. The final grade for this course will be determined using the following schedule:

A=90-100%; B=80-89%, C=70-79%, D=60-69%, F=<60%

VI. Attendance Policy

The attendance policy will conform to IUP's undergraduate course attendance policy.

VII. Required textbooks, supplemental books and readings

There will be no required textbook for this class. Students will read a compilation of papers and chapters from the list below, as well as others relevant to the specific projects to be conducted during GEOS 402.

VIII. Special resource requirements

There are no special resource requirements for this course.

IX. Bibliography

The following will be among the published resources used to develop the course curriculum:

- Alt, D. and Hyndman, D.W. (1986) *Roadside Geology of Montana*: Mountain Press, Missoula, MT, 429p.
- Beutner, E.C. (2003) The Blacktail thrust-fold, Crandall Conglomerate, and Heart Mountain detachment fault, northwestern Wyoming: *Rocky Mountain Geology*, Vol. 38, Issue 2, p.237-245.
- Compton, R.R. (1985) *Geology in the Field*: John Wiley and Sons, New York, 398p.
- Dueker, K. (2001) Thick-structured Proterozoic lithosphere of the Rocky Mountain region: *GSA Today*, Vol. 11, Issue 12, p.4-9.
- Feldmann, R.M. and Heimlich, R.A. (1980) *The Black Hills*: K/H Geology Field Guide Series, Kendall/Hunt Publishing, Dubuque, Iowa, 190p.
- Fritz, W.J. (1987) *Roadside Geology of the Yellowstone Country*: Mountain Press, Missoula, MT, 144p.
- Frost, C.D. (2000) Reflections on Proterozoic magmatism of the Rocky Mountains and environs; past and present: *Rocky Mountain Geology*, Vol. 35, Issue 1, pp.1-5.
- Gries, J.P. (1996) *Roadside Geology of South Dakota*: Mountain Press, Missoula, MT, 358p.
- Heller, P.L. (2003) Post-Paleozoic alluvial gravel transport as evidence of continental tilting in the U.S. Cordillera: *Geological Society of America Bulletin*, Vol. 115, Issue 9, p.1122-1132.
- Lageson, D.R. and Spearing, D.R. (1988) *Roadside Geology of Wyoming*: Mountain Press, Missoula, MT, 273p.
- Lillegraven, J.A. (2004) Tectonic and paleogeographic implications of late Laramide geologic history in the northeastern corner of Wyoming's Hanna Basin: *Rocky Mountain Geology*, Vol. 39, Issue 1, p.7-64.
- McMillan, M.E. (2002) Sub-summit surfaces in the Rocky Mountains; reevaluating past ideas with landscape dimensional analysis: *Abstracts with Programs - Geological Society of America*, Vol. 34, Issue 6, p.95.
- Parsons, W.H. (1978) *Middle Rockies and Yellowstone*: K/H Geology Field Guide Series, Kendall/Hunt Publishing, Dubuque, Iowa, 233p.
- Powers, R.B., ed. (1982) *Geologic Studies of the Cordilleran Thrust Belt Volumes I-II*: Rocky Mountain Association of Geologists, Denver, CO.
- Snoke, A.W., Steidtmann, J.R. and Roberts, S.M., eds. (1993) *Geology of Wyoming*: Geological Survey of Wyoming Memoir No. 5, Vol. 1, 477p.
- Stone, D.S. (2004) Structures of the Rocky Mountain foreland; Fivemile fault-related fold trend, central Bighorn Basin: *Mountain Geologist*, Vol. 41, Issue 3, p.140-142.

Course Analysis Questionnaire

Section A: Details of the Course

- A1. How does this course fit into the programs of the department? For which students is the course designed? Explain why his course cannot be incorporated into an existing course.**
- This course is designed as a prerequisite for GEOS 402 Northern Rockies Field Workshop [currently listed as GEOS 336; see attached Course Revision Proposal] in order to prepare students for the field-based exercises conducted in that class. One goal of the Geoscience Department's program revisions is to make field-based courses more accessible to students earlier in their IUP career. This course is designed to provide a common knowledge base and skill set for majors and minors of all levels who may then take GEOS 402.

- A2. Does this course require changes in the content of existing courses or requirements for a program?**
This course does not require changing the existing content of any other courses or requirements for any program.
- A3. Has this course been offered at IUP on a trial basis?**
This course has never been offered in the Geoscience Department.
- A4. Is this course to be a dual-level course?**
This course is not a dual-level course.
- A5. If this course may be taken for variable credit, what criteria will be used to relate the credits to the learning experience of each student?**
This course cannot be taken for variable credit.
- A6. Do other higher education institutions currently offer this course? If so, please list examples.**
Virtually all higher education institutions with programs in geology or earth sciences offer courses in the geology of particular regions of interest. These courses come in a number of forms from strictly field-based courses, to classroom lecture/seminar courses, to combinations of both.
- A7. Is the content, or are the skills, of the proposed course recommended or required by a professional society, accrediting authority, law or other external agency?**
No professional society, accrediting authority, law or other external agency recommends or requires any specific content or skills for this course.

Section B: Interdisciplinary Implications

- B1. Will this course be taught by instructors from more than one department?**
This course will be taught by one instructor from the Geoscience Department.
- B2. What is the relationship between the content of this course and the content of courses offered by other departments?**
There is no overlap between the content of this course and that of other courses offered by other departments.
- B3. Will this course be cross-listed with other departments?**
This course will not be cross-listed with any other department.
- B4. Will seats in this course be made available to students in the School of Continuing Education?**
Seats in this course will not be available to students in Continuing Education.

Section C: Implementation

- C1. Are faculty resources adequate?**
Faculty resources are currently adequate to teach this course. This course will be counted as one preparation and one hour of equated workload.
- C2. What other resources will be needed to teach this course and how adequate are the current resources?**

- a. Classroom space is currently adequate to teach this course.
- b. There is no special equipment required to teach this course.
- c. There are no laboratory supplies or other consumable goods required for this course beyond those already possessed by the Geoscience Department.
- d. Library materials are currently adequate for this course.
- e. There will be no additional travel expenses.

C3. Are any of the resources for this course funded by a grant?

No resources for this course are currently funded by a grant.

C4. How frequently do you expect this course to be offered?

The department expects that this course will be offered every other year.

C5. How many sections of this course do you anticipate offering in any single semester?

We anticipate offering a single section of this course in a given semester.

C6. How many students do you plan to accommodate in a section of this course?

We plan to accommodate no more than 24 students in this course. This is the maximum number of students that can be accommodated in the Geoscience Department's teaching laboratory rooms.

C7. Does any professional society recommend enrollment limits or parameters for a course of this nature?

No professional society recommends enrollment limits or parameters for this course.

C8. Not applicable.

Section D: Miscellaneous

None.

Part III. Letters of Support or Acknowledgment

There are no letters in the attached program revisions that directly pertain to this new course.