LSC Use Only
Number: _____
Submission Date: _____
Action-Date: _____

RECEIVED
OCT 2 0 1995
LIBERAL STUDIES

UWUCC USE Only
Number: 95-40e
Submission Date: _____
Action-Date: App 12/12/95
Senate App 2/6/96

# CURRICULUM PROPOSAL COVER SHEET
University-Wide Undergraduate Curriculum Committee

## I. CONTACT

Contact Person Karen Rose Cercone Phone 5623

Department Geoscience

## II. PROPOSAL TYPE (Check All Appropriate Lines)

X COURSE Historical Geology / Historical Geology Lab
Suggested 20 character title

____ New Course* _____
Course Number and Full Title

X Course Revision GS 131 Historical Geology/GS 132 Historical Geology Lab
Course Number and Full Title (was GS 133 Int. Hist. Geol Lab)

____ Liberal Studies Approval + for new or existing course _____
Course Number and Full Title

____ Course Deletion _____
Course Number and Full Title

____ Number and/or Title Change _____
Old Number and/or Full Old Title

_____
New Number and/or Full New Title

____ Course or Catalog Description Change _____
Course Number and Full Title

____ PROGRAM: ____ Major ____ Minor ____ Track

____ New Program* _____
Program Name

____ Program Revision* _____
Program Name

____ Program Deletion* _____
Program Name

____ Title Change _____
Old Program Name

_____
New Program Name

## III. Approvals (signatures and date)

Department Curriculum Committee 4-7-95

Department Chair 4-7-95

College Curriculum Committee

College Dean 10/20/95

+ Director of Liberal Studies (where applicable)

*Provost (where applicable)

**Introduction:**

Course revision: GS 131 Historical Geology: change in course prerequisites, change in catalog description; GS 132 Historical Geology Lab: change in course number (was GS 133 Intensive Historical Geology Lab), change in prerequisites ("old" GS 132 will be deleted)

**Old:**

GS 131 Historical Geology 3c-0l-3sh
Prerequisite: GS 121 or permission of the instructor
Introduction to the history of the earth and the record of physical and biologic evolution.

**New:**

GS 131 Historical Geology 3c-0l-3sh
Prerequisites: GS 121/122; Geoscience majors/minors, science or science education majors/minors, Anthropology /Geography / Regional Planning Majors, or Permission of instructor
Introduction to history of the earth, including the fossil record and the history of biologic evolution; the growth and tectonic interactions of oceans and continents; and the physical evolution of the earth's atmosphere, lithosphere and hydrosphere. Designed to prepare majors and minors for upper-level geology classes.

**Old:**

GS 133 Intensive Historical Geology Laboratory 0c-3l-1sh
Should be taken concurrently with GS 131 by all Geology/Geoscience majors/minors
Selected problems in stratigraphic analysis, paleontology, and structural geology; designed to prepare students for upper-level geology classes. Includes field trips.

**New:**

GS 132 Historical Geology Laboratory 0c-3l-1sh
Prerequisites: GS 121/122, Geoscience majors/minors, science or science education majors/minors, Anthropology/Geography/Regional Planning majors, or permission of instructor
Selected problems in stratigraphic analysis, paleontology, and structural geology; designed to prepare students for upper-level geology classes. Includes field trips.

Delete "old" GS 132 Physical Geology Lab (0c-2l-1sh); "old" 132 number will be re-used for "old" GS 133

**2. Summary of revisions: Historical Geology (GS 131) & Historical Geology Lab (GS 132)**

| OLD COURSES | REVISED COURSES |
|---|---|
| GS 131 Historical Geology Lecture<br>GS 132 Historical Geology Lab<br>GS 133 Intensive Historical Geology Lab | GS 131 Historical Geology Lecture<br>"Old" GS 132 deleted<br>"Old" GS 133 renumbered to "new" GS 132 Historical Geology Lab |
| This introductory geology course served both department majors and Liberal Studies non-majors by combining them all in one lecture section (GS 131) but separating them into three-hour majors' only lab (GS 133) or two-hour non-majors lab sections (GS 132). | This course sequence will now be restricted to Geoscience majors and minors, and outside majors who need a specialized, in-depth treatment of historical geology. This change allows us to keep up with the changing pace of the field. The bulk of non-major demand will be met by our new non-majors course sequence, Introduction to Geoscience (GS 101-106). |

**Justification for revision of Historical Geology (GS 131-132) course sequence**

a. Justification for change in course prerequisites: Historical Geology was originally designed to serve both majors and non-majors as a general introduction to the history of the earth and its organisms. As the field of geoscience becomes more complex, more quantitative and more specialized, however, we have found it increasingly difficult to serve this dual audience adequately with a single course. We have therefore designed an entirely new Liberal Studies course sequence (Introduction to Geoscience) which includes a semester-long course in geology (The Dynamic Earth) which will give non-majors a rigorous and topical overview of both physical and historical geology. Simultaneously, we wish to retool Historical Geology to give our department majors and minors a more specialized and in-depth background for their upper-level classes, thus keeping pace with the increasing complexity of the field.

Majors from science departments and other departments such as Anthropology and Geography/Regional Planning, who need the same level of rigor and in-depth treatment of introductory geology, will also be allowed to take this course sequence, as will selected other students (by faculty permission) who have a serious interest in the field and/or intentions of minoring in the future. Please note that Anthropology Majors, Geography/Regional Planning Majors and potential minors are currently placed in the Intensive (3-hour) lab, so that no change in their program will result from this course revision.

B. Justification for change in catalog description: The new catalog description for GS 131 more accurately represents the course content and emphasizes that GS 131 is designed to prepare

majors and minors for upper-level geology classes.

C. Justification for change in number from "old" GS 133 to "new" GS 132: we proposed to attch the number 132 to our "old" 133 so that Historical Geology Lecture and Lab are numbered sequentially.

**New Syllabus of Record:**

**GS 131 Historical Geology Lecture**

**I. Catalog Description:**

GS 131 Historical Geology — 3 credits, 3 lecture hours (3c-0l-3sh)

Pre-requisites: GS 121/122; Geoscience majors/minors, science or science education majors/minors, Anthropology /Geography / Regional Planning Majors, or Permission of instructor

Introduction to history of the earth, including the fossil record and the history of biologic evolution; the growth and tectonic interactions of oceans and continents; and the physical evolution of the earth's atmosphere, lithosphere and hydrosphere. Designed to prepare majors and minors for upper-level geology classes.

**II. Course Objectives**

1. Students will discover how geologic time is measured and described.
2. Students will learn how life has evolved on earth by studying the fossil record.
3. Students will see how the earth, its atmosphere, its oceans and its tectonic activity have changed through time, from initial formation to the present day.
4. Students will gain an understanding of how present-day mountain belts have evolved through time as a result of tectonic processes.
5. Students will gain enough knowledge and understanding of earth history to prepare them for upper-level geology and environmental geoscience course-work.

**III. Course Outline**

A. Introduction to historical geology (4 hours)
- History of geology
- Basic principles of geology
- Geologic time
- Modern stratigraphic principles

B. Fossils and evolution (4 hours)
- What are Fossils?
- Fossil preservation

Organic evolution
Organic evolution

C. Precambrian Life (4 hours)
- The earliest fossils
- Archean conditions and life
- Evolution of Earth's atmosphere & hydrosphere
- Proterozoic conditions and life

D. Paleozoic Life (4 hours)
- Early Paleozoic life
- Mid-Paleozoic life
- Late Paleozoic life
- Permo-Triassic life

E. Mesozoic and Cenozoic Life (5 hours)
- Mesozoic life
- Mesozoic life (con't)
- Mesozoic life (con't)
- Cenozoic life
- Cenozoic life

F. The Earth's physical evolution (4 hours)
- Plate tectonics revisited
- Index rocks
- How to make a planet
- Phanerozoic overview

G. Precambrian Tectonics (4 hours)
- The Archean Earth
- United Plates of America (Part I)
- The Proterozoic Earth
- United Plates of America (Part II)

H. Paleozoic Tectonics (6 hours)
- The early Paleozoic Earth
- The Taconic orogeny
- The middle Paleozoic Earth
- The Acadian orogeny
- The late Paleozoic Earth
- The Alleghenian orogeny

I. Mesozoic Tectonics (4 hours)
- The early Mesozoic Earth
- The Nevadan orogeny
- The late Mesozoic Earth
- The Laramide orogeny

J. Cenozoic Tectonics (3 hours)
- The Cenozoic Earth

Basin and Range Tectonics
North America today

**IV. Evaluation Methods**

Your grade in this course will be calculated from four non-cumulative exams (worth 100 points each) and one written book report (worth 50 points). Exams will consist of short answer and essay questions. Exam scores will be adjusted to a mean of 75% so that 90-100%=A; 80-89%=B; 70-79%=C; 60-69%=D; and below 60%=F. If you miss an exam for any reason, you can take a cumulative essay make-up exam during the second hour of the final exam period to replace your missing score.

**V. Required Textbook, Supplemental Book and Readings**

Text: Stanley, S., 1989, EARTH AND LIFE THROUGH TIME (2nd Ed.) New York: W.H. Freeman and Company, 689 p.

Non-Text: May vary with instructor, but will include choices such as:
Michael Crichton JURASSIC PARK
John Horner DIGGING DINOSAURS
John McPhee IN SUSPECT TERRAIN
John McPhee ASSEMBLING CALIFORNIA

**VI. Special Resource Requirements**: None

**VII. Bibliography:**

Bates, R.L. and Jackson, J.A., 1984, DICTIONARY OF GEOLOGICAL TERMS. New York: Doubleday, 571 p.

Gould, S. J., 1989, WONDERFUL LIFE: THE BURGESS SHALE AND THE NATURE OF HISTORY. New York: W.W. Norton & Company, 347 p.

Harrington, J.W., 1983, DANCE OF THE CONTINENTS: ADVENTURES WITH TIME AND ROCKS. Los Angeles: J.P. Tarcher, Inc., 254 p.

Lemon R.R., 1993, VANISHED WORLDS: AN INTRODUCTION TO HISTORICAL GEOLOGY. Dubuque: William Brown Publishers, 480 p.

Levin, H.L., 1991, THE EARTH THROUGH TIME (4TH ED). New York: Saunders College Publishing, 646 p.

Schopf, J.W., 1992, MAJOR EVENTS IN THE HISTORY OF LIFE. Boston: Jones & Bartlett Publishers, 190 p.

**New syllabus of record for GS 132 Historical Geology Lab**

I. **Catalog Description:**

GS 132 Historical Geology Lab — 1 credit, 3 lab hours (0c-3l-1sh)

Pre-requisites: GS 121/122; Geoscience majors/minors, science or science education majors/minors, Anthropology /Geography / Regional Planning Majors, or Permission of Instructor

Co-requisite: Enrollment in GS 131

Selected problems in stratigraphic analysis, paleontology, and structural geology. Includes field trips. Designed to prepare majors and minors for upper-level geology classes.

II. Course Objectives

1. Students will learn to identify the major groups of fossil organisms.
2. Students will further their knowledge of geologic maps and cross-sections.
3. Students will apply their map and sample identification skills to reconstruct ancient earth environments and to determine the nature of fossil organisms
4. Students will gain enough knowledge and understanding of fossils and maps to prepare them for upper-level geology and environmental geoscience lab-work.

III. Course Outline

A. Introduction to Fossils (2 labs)
   - Fossil preservation I
   - Fossil preservation II

B. Majors groups of invertebrate fossils (3 labs)
   - Forams through brachiopods
   - Molluscs: gastropods, pelecypods and cephalopods
   - Vertebrates and plants

C. Fossil collecting and identification field trip (1 lab)
   - Shelocta field trip

D. Midterm Exam (1 lab)

E. Geologic map and cross-sections skills (4 labs)
   - Simple fold structures
   - Complex fold structures
   - Fault structures
   - Regional geology of the Gettysburg battlefield

F. Map and fossil synthesis field trips (2 labs)
   - Conemaugh Gorge field trip
   - Altoona quarry field trip

G. Final Exam (1 lab)

IV. Evaluation Methods

Grades for GS 131 (lecture) and GS 132 (lab) are reported separately and do not affect each other. Your grade for GS 132 will be determined from an average of two 100-point lab exams, each adjusted to a mean of 75% so that 90-100%=A; 80-89%=B; 70-79%=C; 60-69%=D; and below 60%=F.

V. Required Textbook, Supplemental Book and Readings

IUP Historical Geology Lab Manual. This lab manual was locally developed to take advantage of the unique local geology of the Indiana area. Several nationally published lab manuals were consulted during the development process to ensure quality, parity and relevance to national trends.

VI. Special Resource Requirements: None

VII. Bibliography:

Dathe, D. 1993, FUNDAMENTALS OF HISTORICAL GEOLOGY. Dubuque: Wm. C Brown Publishers, 246 p.

Lemon R.R., 1993, VANISHED WORLDS: AN INTRODUCTION TO HISTORICAL GEOLOGY. Dubuque, William Brown Publishers, 480 p.

Petersen, M.S. and Rigby, J. K., 1994, INTERPRETING EARTH HISTORY: A MANUAL IN HISTORICAL GEOLOGY (5th ed). Dubuque: Wm. Brown Publishers, 222 p.

Stanley, S.M., 1989, EARTH & LIFE THROUGH TIME (2nd ed). New York: W.H. Freeman and Company, 689 p.

**Old syllabi of record** (appended)

**Letters of Support** (appended)

Anthropology - requested
Geography - received

# GS 131-01A HISTORICAL GEOLOGY
## LECTURE SYLLABUS
## SPRING 1993

Professor: Karen Rose Cercone
112 Walsh Hall

Office Hours Now: MW 9-10:30; F 3-5
After February 22: MWF 10-11:30

| DATE | LECTURE TOPIC | READING IN STANLEY |
|---|---|---|
| 1/20 | The geologic time scale | Chapter 1 |
| 22 | How rocks form | Chapter 3 and 4 |
| 25 | Telling time from rocks | Chapter 5 |
| 27 | Telling time from minerals | |
| 1/29 | Plate tectonics | Chapter 7 |
| 2/1 | Index rocks | Chapter 8 |
| 3 | How fossils form | |
| 5 | Telling time from fossils | |
| 8 | Evolution | Chapter 6* |
| 10 | Evolution | |
| 12 | **FIRST HOURLY EXAM** | |
| 15 | Making the planet | Chapter 9 |
| 17 | The Archean earth | |
| 19 | The Proterozoic earth | Chapter 11 |
| 22 | United Plates of America (Part 1) | |
| 24 | United Plates of America (Part 2) | |
| 26 | The origin of life | Chapter 10* |
| 3/1 | Early atmospheres and oceans | |
| 3 | Symbiosis, sex and multicellular life | |
| 5 | **SECOND HOURLY EXAM** | |
| 8 | The early Paleozoic earth | Chapter 12 |
| 10 | The middle Paleozoic earth | Chapter 13 |
| 12 | FILM: Life on Earth | |
| 22 | The late Paleozoic earth | Chapter 14* |
| 24 | The Taconic orogeny | |
| 26 | The Acadian orogeny | |
| 29 | The Alleghenian orogeny | |
| 31 | Life in the sea | |
| 4/2 | Life on land | |
| 5 | Life in wet and dry times | |
| 7 | **THIRD HOURLY EXAM** | |
| 9 | The Mesozoic earth | Chapter 15 and 16 |
| 13 | The Cenozoic earth | Chapter 17 and 18* |
| 14 | The Nevadan orogeny | |
| 16 | The Laramide orogeny | |
| 19 | Basin and range tectonics | |
| 21 | Rise of the dinosaurs | |
| 23 | Flowering plants, birds and reefs | |
| 26 | Fall of the dinosaurs | |
| 28 | The mammals take over | |
| 30 | **GEOSCIENCE DAY** | **NO CLASS** |
| 5/3 | Life in the Ice Ages | |
| 6 | **FOURTH HOURLY EXAM** | 8-10 am |

# GS 131-01A HISTORICAL GEOLOGY
# COURSE INFORMATION

**Grading policy:**

The grade for the course is based entirely on your scores from hourly exams. Each hourly exam is non-comprehensive and consists of 50 2-point multiple-choice/true-false questions. Exam grades are adjusted to a mean of 75% so that 90-100%=A; 80-89%=B; 70-79%=C; 60-69%=D; and below 60%=F. ONE test can be missed or have its grade dropped from scoring, provided that a book review or Geoscience Day review is submitted by Reading Day (May 5). If no review is submitted, all four test scores, including any zeros, will be averaged to calculate your final grade. If a review is submitted, your lowest grade (or one missed exam) will not be counted into the final grade average. Final grades will be posted on May 7.

**Textbook:**

The required text for this class is Steve Stanley's text Earth and Life through Time. Only the specific reading assignments from the chapters starred on the syllabus will be covered on exams. Other chapters should be read as a supplement to lecture notes and illustrations.

**Non-text reading:**

Either Jack Horner's non-fiction book Digging Dinosaurs or Michael Crichton's novel Jurassic Park may be read and reviewed as an alternate assignment for one of the exams. Book reviews must be at least 4 typed pages long and should summarize and critique the entire book. In order to be counted as an exam substitute, book reviews must receive a grade of S. This grade, however, will not be counted into your final numerical average.

**Geoscience Day:**

At the end of the semester, all geology majors and faculty take a day to attend talks given by graduating seniors in the Geology and Environmental Geoscience programs. These fifteen-minute talks present research done by seniors as part of their required senior seminar course. First-year majors are strongly encouraged to attend these talks. If desired, any student may attend and write a summary of the research presented, in order to drop or miss one of the four hourly exams. The summary should be at least 3 typed pages in length and should summarize the topic and conclusions of each student talk. In order to be counted as an exam substitute, Geoscience Day reviews must receive at least a grade of S. This grade, however, will not be counted into your final numerical average.

**Office hours:**

Initially, my office hours will be Monday and Wednesday 9:00-10:30 am and Fridays 3:00-5:00 pm. After February 22, I will be teaching fewer classes and my hours will change to 10:00-11:30 am Monday, Wednesday and Friday. Although I may look like I'm busy with other things when you come to my office, my first priority during that time is to answer questions from students. I don't mind going over your notes or redrawing diagrams from class. If you have to miss a class, I suggest you copy the notes from another student (since mine are completely illegible) and then come and see me to make sure you understand the material.

**A friendly warning:**

This is not a class that can be passed just by reading the textbook or coming to a few scattered lectures. My tests draw equally on EVERY lecture during the semester, and I will not reteach material for someone who has missed large sections of class unless they have a serious and verified medical problem. However, if you take detailed notes during lectures, read the assigned sections of the book and come in during office hours to clarify any material you haven't understood, you should be able to pass with at least a grade of C. Good luck!

# GS 133 INTENSIVE HISTORICAL GEOLOGY LAB
Spring 1995

Dr. John F. Taylor
129 Weyandt Hall

OFFICE HOURS:
T 3:30-5:30
W 4:30-6:30
R 5:30-6:30

| LAB | CHAPT. | DATE | SUBJECT |
|---|---|---|---|
| 1 | | Jan. 19 | Introduction |
| 2 | 2 | Jan. 26 | Classification of Fossils : Monera to Mollusca |
| 3* | 3 | Feb. 2 | Classification of Fossils: Mollusca to Plantae |
| 4 | 1 | Feb. 9 | Sedimentary Features and Depositional Environments |
| 5 | 5 | Feb. 16 | Fossils, Age, and Environment |
| 6* | 4 | Feb. 23 | Fossil Preservation |
| | | Mar. 2 | MIDTERM EXAM |
| | | Mar. 9 | SPRING BREAK |
| 8** | 6 | Mar. 16 | Introduction to Geological Maps & Cross-sections |
| 9 | | Mar. 23 | FIELD TRIP: Fossils & Environments, Shelocta, PA |
| 10* | 7 | Mar. 30 | Paleozoic Structural Evolution of Pennsylvania and the Appalachians |
| 11 | | Apr. 6 | FIELD TRIP: Structure & Stratigraphy, Conemaugh Water Gap, Bolivar, PA |
| 12* | 8 | Apr. 13 | Structural Evolution of Pennsylvania in the Mesozoic and Cenozoic. |
| 13 | | Apr. 20 | FIELD TRIP: Allegheny Front / Valley & Ridge Province, Altoona, PA |
| 14 | | Apr. 27 | FINAL EXAM: |

---

Lab Manual: Intensive Historical Geology Lab Manual
Geoscience Dept., IUP
(Available at PRO-PACKET, Suite 2200, University Square)

* Quiz on material from previous lab(s)
** Quiz on introductory material for that lab

NOTE: It is your responsibility to monitor our progress on the syllabus, especially the dates when quizzes or field trips are scheduled.

REQUIRED MATERIALS - In addition to this manual, you will need the following materials:

a protractor
a 12 inch ruler (ideally, marked with a metric scale as well)
No. 2 pencils (and erasers) - don't work up the lab exercises in ink.
a set of colored pencils
a calculator
a hand lens (pocket magnifier)

FIELD TRIPS - Observations made and discussed during field trips are as important as those in labs and will be included on the quizzes and tests accordingly. During the last half of the semester, come to each lab with footwear and multiple layers of clothing appropriate for a field trip, whether there is one scheduled for that week or not. The first field trip will be completed within the scheduled 3-hour lab period; the second and third trips will be somewhat longer, requiring at least 4 hours because of long driving times. Field Trip #2 may involve quite a long hike on a coarse gravel access road beside the railroad tracks; be sure to wear tough and comfortable footwear.

GRADING - The grade for this course will be based on two major exams, five quizzes, lab exercises that are handed in, and class participation. The relative importance of these components is shown below:

MIDTERM EXAM - 100 Points
FINAL EXAM - 100 Points
5 quizzes - 100 Points
(20 points ea.)

Exams and quizzes will be graded on a scale of 90-100%=A; 80-89%=B; 70-79%=C; 60-69%=D; and scores below 60%=F. All quizzes and exams are closed book.

Semester Total for exams and quizzes = (90%)
Class Participation Score = (10%)

Each lab exercise handed-in will be marked as plus, check-plus, check, check-minus, or minus. At the end of the semester the final % score determined from test/quiz points and class participation will be increased by 1 percentage point for each plus and by 0.5 percentage point for each check-plus; correspondingly, the final % score will be decreased by 0.5 for each check-minus, and by 1 for each minus.

# GS 132 HISTORICAL GEOLOGY
# LABORATORY SYLLABUS
# SPRING 1993

**Part I - Fossils**

| | | | |
|---|---|---|---|
| Instructor: | Fred Park | Office: | 117 Walsh |
| Text: | GS 132 Lab Manual Part I | Hours: | MWF 9:30-10:30<br>R 1:00-2:00 |

| Date | Topic |
|---|---|
| 1-25 | Introduction |
| 2-1 | Fossils Part I |
| 2-38 | Fossils Part II |
| 2-15 | Fossils & environments |
| 2-22 | Fossils & time |
| 3-1 | FIELD TRIP: SHELOCTA |
| 3-8 | FOSSIL EXAM |

**Part II - Maps**

| | | | |
|---|---|---|---|
| Instructor: | Karen Rose Cercone | Office: | 112 Walsh |
| Text: | GS 122 Lab Manual Part II | Hours: | MWF 10:00-11:30 |

| Date | Topic |
|---|---|
| 3-22 | Geologic maps |
| 3-29 | Paleozoic structures |
| 4-5 | FIELD TRIP: CONEMAUGH GORGE |
| 4-13 | Mesozoic/Cenozoic structures |
| 4-19 | FIELD TRIP: ALTOONA (3 HOURS) |
| 4-26 | Review Session |
| 5-3 | MAP EXAM |

**Course Mechanics**

Each week in this course, we will examine ways in which geologists study the history of the earth: by identifying fossils, by studying rock outcrops in the field or by analyzing maps. Since our labs sometimes must occur out of sequence with the lecture, lab will begin with a short lecture on which you should take notes. The rest of the period will be used to examine specimens or maps, in preparation for the next week's quiz. Note: our last field trip requires an extra hour which may conflict with other classes. Please make an effort to free this time slot if at all possible. As a reward for taking extra time in lab that day, you will get the following week off (time can be used as review session if desired).

**Course Grades**

Each instructor in this class will be responsible for grading his or her half of it. Exams will be non-cumulative and all quizzes will be announced in advance. Scores from all exams will be adjusted to a mean of 75%, so that 90-100% = A; 80-89% = B; 70-79% = C; 60-69% = D; and below 60% = F. Final grades will be determined by numerical average of the grades received for part I and part II, and will be posted by social security number during the final week of classes.

IUP

Indiana, Pennsylvania 15705

Date: March 22, 1995

To: John Butzow, Dean of the College of Education
Curriculum Committee Chair, College of Education

From: Karen Rose Cercone, Geoscience Curriculum Contact

Subject: Proposed Geoscience Course Revisions

I have attached a course revision proposal which affects the GS 101-104 Earth Science course sequence taken by many Secondary Science Education majors. As part of a major overhaul of our introductory classes, the Geoscience Department plans to rename this course sequence Earth Science for Educators I and II and renumber it as GS 111-114. We plan to restrict future enrollment to science education majors only (ie, Earth and Space Science Ed, General Science Ed, Bio Ed, etc), plus any other science majors who are currently required to take Earth Science. The new GS 111-114 Earth Science for Educators will retain the traditional number of credits (3 lecture, 1 lab) but some lecture sections may become writing-intensive and all labs will be lengthened to three hours rather than two to allow more rigorous treatment of the material.

Please let me know within the next two weeks if you have any comments or suggestions on this planned revision. If the revision creates no problems for your department, I would appreciate you sending along a letter to that effect to be attached to our course proposal.

Thanks.

IUP

Indiana, Pennsylvania 15705

Date: March 22, 1995

To: Dennis Whitson, Chair of the Physics Department
Curriculum Committee Chair, Physics Department

From: Karen Rose Cercone, Geoscience Curriculum Contact

Subject: Proposed Geoscience Course Revisions

I have attached a course revision proposal which affects the GS 101-104 Earth Science course sequence taken by your Secondary Science Education majors. As part of a major overhaul of our introductory classes, the Geoscience Department plans to rename this course sequence Earth Science for Educators I and II and renumber it as GS 111-114. We plan to restrict future enrollment to science education majors only (ie, Earth and Space Science Ed, General Science Ed, Bio Ed, etc), plus any other science majors who are currently required to take Earth Science. The new GS 111-114 Earth Science for Educators will retain the traditional number of credits (3 lecture, 1 lab) but some lecture sections may become writing-intensive and all labs will be lengthened to three hours rather than two to allow more rigorous treatment of the material.

Please let me know within the next two weeks if you have any comments or suggestions on this planned revision. If the revision creates no problems for your department, I would appreciate you sending along a letter to that effect to be attached to our course proposal.

Thanks.

IUP

Indiana, Pennsylvania 15705

Date: March 22, 1995

To: Pothen Varughese, Chair of the Chemistry Department
Curriculum Committee Chair, Chemistry Department

From: Karen Rose Cercone, Geoscience Curriculum Contact

Subject: Proposed Geoscience Course Revisions

I have attached a course revision proposal which affects the GS 101-104 Earth Science course sequence taken by your Secondary Science Education majors. As part of a major overhaul of our introductory classes, the Geoscience Department plans to rename this course sequence Earth Science for Educators I and II and renumber it as GS 111-114. We plan to restrict future enrollment to science education majors only (ie, Earth and Space Science Ed, General Science Ed, Bio Ed, etc), plus any other science majors who are currently required to take Earth Science. The new GS 111-114 Earth Science for Educators will retain the traditional number of credits (3 lecture, 1 lab) but some lecture sections may become writing-intensive and all labs will be lengthened to three hours rather than two to allow more rigorous treatment of the material.

Please let me know within the next two weeks if you have any comments or suggestions on this planned revision. If the revision creates no problems for your department, I would appreciate you sending along a letter to that effect to be attached to our course proposal.

Thanks.

IUP

Indiana, Pennsylvania 15705

Date: March 22, 1995

To: Bob Prezant, Chair of the Biology Department
Curriculum Committee Chair, Biology Department

From: Karen Rose Cercone, Geoscience Curriculum Contact

Subject: Proposed Geoscience Course Revisions

I have attached a course revision proposal which affects the GS 101-104 Earth Science course sequence taken by your Secondary Science Education majors. As part of a major overhaul of our introductory classes, the Geoscience Department plans to rename this course sequence Earth Science for Educators I and II and renumber it as GS 111-114. We plan to restrict future enrollment to science education majors only (ie, Earth and Space Science Ed, General Science Ed, Bio Ed, etc), plus any other science majors who are currently required to take Earth Science. The new GS 111-114 Earth Science for Educators will retain the traditional number of credits (3 lecture, 1 lab) but some lecture sections may become writing-intensive and all labs will be lengthened to three hours rather than two to allow more rigorous treatment of the material.

Please let me know within the next two weeks if you have any comments or suggestions on this planned revision. If the revision creates no problems for your department, I would appreciate you sending along a letter to that effect to be attached to our course proposal.

Thanks.

IUP

Indiana, Pennsylvania 15705

Date: March 22, 1995

To: Susan Forbes, Chair of the Geography Department
Curriculum Committee Chair, Geography Department

From: Karen Rose Cercone, Geoscience Curriculum Contact

Subject: Proposed Geoscience Course Revisions

I have attached a course revision proposal which affects the GS 121/122 Physical Geology and GS 131/132 Historical Geology course sequence taken by many of your majors. As part of a major overhaul of our introductory classes, the Geoscience Department plans to restrict these two courses to Geology, Geoscience, Earth & Space Science Education, Anthropology and Geography majors only. The new courses will retain the same number of credits (3 lecture, 1 lab) and traditional format of a two semester overview of geology, but some of the lecture sections may become writing-intensive and all labs will be lengthened to three hours rather than two to allow more rigorous treatment of the material. We plan to petition the Liberal Studies committee for permission to allow the sequence to still fulfill the Liberal Studies lab science requirement for your majors, as it does now.

Please let me know within the next two weeks if you have any comments or suggestions on this planned revision. If the revision creates no problems for your department, I would appreciate you sending along a letter to that effect to be attached to our course proposal.

Thanks.

IUP

Indiana, Pennsylvania 15705

Date: March 22, 1995

To: Sarah Neusius, Chair of the Anthropology Department
Curriculum Committee Chair, Anthropology Department

From: Karen Rose Cercone, Geoscience Curriculum Contact

Subject: Proposed Geoscience Course Revisions

I have attached a course revision proposal which affects the GS 121/122 Physical Geology and GS 131/132 Historical Geology course sequence taken by many of your majors. As part of a major overhaul of our introductory classes, the Geoscience Department plans to restrict these two courses to Geology, Geoscience, Earth & Space Science Education, Anthropology and Geography majors only. The new courses will retain the same number of credits (3 lecture, 1 lab) and traditional format of a two semester overview of geology, but some of the lecture sections may become writing-intensive and all labs will be lengthened to three hours rather than two to allow more rigorous treatment of the material. We plan to petition the Liberal Studies committee for permission to allow the sequence to still fulfill the Liberal Studies lab science requirement for your majors, as it does now.

Please let me know within the next two weeks if you have any comments or suggestions on this planned revision. If the revision creates no problems for your department, I would appreciate you sending along a letter to that effect to be attached to our course proposal.

Thanks.

Department of Geography and Regional Planning
Indiana University of Pennsylvania
10 Leonard Hall
Indiana, Pennsylvania 15705-1087

(412) 357-2250

IUP

March 28, 1995

Dear Karen,

Sue Forbes asked me to circulate the attached course proposal/revisions among the Geography faculty, and to forward any information to you. Sorry about the delay in getting this back to you, but some faculty mailboxes seem to be the proverbial "bottomless pits" into which everything disappears.

Everyone was satisfied with the proposal, and there were no suggestions for changes. There is one cosmetic change that you might consider making in paragraph one of your cover letter. Our department has both geography and regional planning majors, so you should change Geography to "Geography/Regional Planning" under the "restricted to" departments.

Sincerely,

Joe

Joe Bencloski

IUP CHEMISTRY DEPARTMENT

To: Karen Rose Cercone
Geoscience Curriculum Contact

From: Pothen Varughese, Chair
Chemistry Department

Date: March 30, 1995

Subject: Geoscience Course Revisions

I have looked through your geoscience course revision proposal. GS 111-114, Earth Science for Education I and II, are not required courses for any of the degree programs in the Chemistry Department. Therefore, I do not think the proposed course revision will affect the students in our department or the department in any way.

**MEMORANDUM FROM**
**COLLEGE OF EDUCATION**

**DATE:** April 6, 1995

**SUBJECT:** Approval Course Revision
GS 111/112

**TO:** Chairpersons Mill and Kuzneski
UWCC

**FROM:** John W. Butzow, Dean
College of Education

The TECC Curriculum Committee has approved the use of the revised GS 111/112 course in the secondary science teacher education programs.

cc: Ms. Sutton
[redacted]

12.GS111.MEM

Department of Anthropology
Indiana University of Pennsylvania
Keith Hall
Indiana, Pennsylvania 15705-1087

(412) 357-2730

22

IUP

April 6, 1995

Dr. Karen R. Cercone
Geoscience Department
Walsh 112

Dear Dr. Cercone:

We have reviewed your proposal regarding the Physical Geology and Historical Geology courses, and we fully support your plan to restrict these courses to students in specific majors. We believe this will result in more rigorous courses, as clustering students from cognate fields will permit more demanding and focused assignments and reading.

As you know, we encourage our students to take Geoscience classes as their science option because this topic is closely linked with our field, especially for our students interested in archeology. In recent years, a substantial proportion of our students in the archeology track have pursued a minor in Geology because of its relevance to the professional work of archeologists. We believe that your proposal to limit these two courses to selected majors will strengthen the linkage between our programs.

If I can provide any additional information in support of your proposal, please do not hesitate to contact me.

Sincerely,

Miriam Chaiken, Ph. D.
Chairperson