

LSC Use Only:

Number: _____

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00-476

UWUCC App 3/13/01
Senate App 4/3/01

CURRICULUM PROPOSAL COVER SHEET
University-Wide Undergraduate Curriculum Committee

I. CONTACT

Contact Person Keith Putirka

Phone x5627

Department Geoscience

II. PROPOSAL TYPE (Check All Appropriate Lines)

☒ **COURSE** Historical Geology

Suggested 20 character title

☐ **New Course*** _____

Course Number and Full Title

☒ **Course Revision** GEOS 131. Historical Geology

Course Number and Full Title

☐ **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)

[Signature]
Department Curriculum Committee

[Signature]
College Curriculum Committee

[Signature] 12/14/00
Department Chair

[Signature] 12/18/00
College Dean

Director of Liberal Studies (where applicable)

*Provost (where applicable)



Part II

1. Description of the Curriculum Change

A. Catalog Description

GEOS 131 Historical Geology

3 lecture hours
0 lab hours
3 credits
(3c-0l-3sh)

Prerequisites: GEOS 121 and 122

Corequisite: Enrollment in GEOS 132

An introduction to the history of Earth, including the fossil record and the history of biologic evolution. Topics will also include 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.

2. Summary of Proposed Revisions

A. Comparison of Catalog Descriptions

Current Catalog Description:

GEOS 131 Historical Geology

3 lecture hours
0 lab hours
3 credits
(3c-0l-3sh)

Prerequisites: Geoscience majors/minors, any Science or Science Education majors/minors, Anthropology, Geography/Regional Planning majors, or permission of instructor.

An 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 students for upper-level geology classes.

Proposed Catalog Description:

GEOS 131 Historical Geology

3 lecture hours
0 lab hours
3 credits
(3c-0l-3sh)

Prerequisites: GEOS 121 and 122

Corequisite: Enrollment in GEOS 132

An introduction to the history of Earth, including the fossil record and the history of biologic evolution. Topics will also include 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.

B. Summary of revisions

The prerequisites for GEOS 131 have been changed. There are also minor changes in the course description.

3. Justification for Revision:

By deletion of the enrollment restriction, non-majors may enroll in the course; this change makes GEOS 131 consistent with GEOS 121, which has recently been opened to non-majors.

4. Old Syllabus of record (same as new syllabus of record)

Attached

5. Letters of support

Because the content of the course is not changing and because we have made the course open to more students rather than fewer students, we believe that no letters of support are required. We have informed Anthropology and Geography/Regional Planning of these changes. We have also informed Liberal Studies of these changes—GEOS 131 will not be available as a Liberal Studies non-lab science option. Liberal Studies will get this proposal after approval by the college curriculum committee (LS committee has already approved changes in GEOS 121/122).

are the same except for changes in prerequisites and catalog description:

GS 131 Historical Geology Lecture

I. Catalog Description: (current) 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.

I. Catalog description (proposed):

GEOS 131: Historical Geology

3 lecture hours
0 lab hours
3 credits
(3c-0l-3sh)

Prerequisites: GEOS 121 and 122

Co-requisite: Enrollment in GEOS 132

An introduction to the history of Earth, including the fossil record and the history of biologic evolution. Topics will also include the growth and tectonic interactions of oceans and continents, and the physical evolution of the earth's atmosphere, lithosphere and hydrosphere. Designed to prepare students 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 (4 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 (3 hours)
 - The Archean Earth
 - United Plates of America (Part I)
 - The Proterozoic Earth
 - United Plates of America (Part II)
- H. Paleozoic Tectonics (4 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

Three exams during the semester.

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., 1998, EARTH AND LIFE THROUGH TIME (3rd 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., 1995, THE EARTH THROUGH TIME (5TH 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.

Liberal Studies Office
110 Gordon Hall Ext. 7-5715

Dr. Mary E. Sadler
email: msadler

Date: February 2, 2001
To: Dr. Keith Putirka
From: Dr. Mary E. Sadler, Director Liberal Studies
Subject: Liberal Studies approvals



At the January 25, 2001 meeting of the Liberal Studies Committee the following proposals were reviewed and approved:

GEOS 131 Historical Geology – prerequisite change approved,

GEOS 132 Historical Geology Lab - prerequisite change approved.

Please note that the current catalog does not list GEOS 121/122 as a prerequisite for GEOS 131 as indicated in your proposal. Therefore, even though this may be a catalog error, the catalog description as it appears in the current catalog needs to be replicated before the proposal is approved by the UWUCC and forwarded to Senate. There was also some confusion about the correct numbers for the “sister courses” in the justification section of your proposal. Please check on this and forward any corrections to the UWUCC, Screening Committee #3.

A copy of this memo is forwarded to the UWUCC so it is available as they review these proposals. Please don't hesitate to ask if you have any questions about the review process.

CC: Dr. Darlene Richardson, Chair
Dr. John Eck, Dean
UWUCC, Screening Committee #3