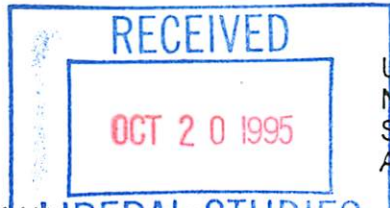


LSC Use Only
Number: _____
Submission Date: _____
Action-Date: _____



UWUCC USE Only
Number: 95-409
Submission Date: App 12/12/95
Action-Date: Senate App 2/6/96

CURRICULUM PROPOSAL COVER SHEET
LIBERAL STUDIES
University-Wide Undergraduate Curriculum Committee

I. CONTACT

Contact Person Karen Rose Cercone Phone 5623
Department Geoscience

II. PROPOSAL TYPE (Check All Appropriate Lines)

COURSE Earth Sci for Ed II / Earth Sci for Ed II Lab
Suggested 20 character title

New Course * _____
Course Number and Full Title

Course Revision GS 113 Earth Science for Educators II
Course Number and Full Title

Liberal Studies Approval + _____
for new or existing course GS 114 Earth Science for Educators II Lab
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)

Karen Rose Cercone 4-7-95 Department Curriculum Committee
Finzell 4-7-95 Department Chair

Christy College Curriculum Committee
John J. Ed 10/20/93 College Dean

+ Director of Liberal Studies (where applicable) *Provost (where applicable)

Introduction:

Course revision: "Old" courses GS 103/104 Earth Science (MA) Lecture/lab will be revised to GS 113/114 Earth Science for Educators II with changes in prerequisites, course descriptions, and lab hours.

Old:

GS 103 Earth Science: Meteorology and Astronomy 3c-0l-3sh
The earth's upper environment is studied by focusing on the effects of the atmosphere and the earth's place in the universe on the daily lives of humankind.

New:

GS 113 Earth Science for Educators II 3 credits
3 lecture hours
Prerequisites: Natural Science/Science Education Majors only (3c-0l-3sh)

An in-depth treatment of introductory meteorology and astronomy designed specifically for Secondary Science Education majors. Focuses on atmospheric processes and climate change; and on the earth's place in the solar system and universe.

Old:

GS 113 Earth Science for Educators II 3 credits
3 lecture hours
Prerequisites: Natural Science/Science Education Majors only (3c-0l-3sh)

An in-depth treatment of introductory meteorology and astronomy designed specifically for Secondary Science Education majors. Focuses on atmospheric processes and climate change; and on the earth's place in the solar system and universe.

New:

GS 114 Earth Science for Educators II Lab 1 credit
3 lab hours
Prerequisites: Natural Science/Science Education Majors only (0c-3l-1sh)
Corequisites: Enrollment in GS 113

Use of the weather station and planetarium highlight a series of exercises designed to aid secondary science education majors in developing concepts and laboratory skills for future teaching.

Summary of proposed revisions for Earth Science for Educators (GS 113-114)**OLD COURSES**

GS 103 Earth Science (MA) Lecture
 GS 104 Earth Science (MA) Lab

This primarily non-majors course combined a half-semester of meteorology and astronomy for students fulfilling their Liberal Studies science requirements. Labs were two hours long, and could not encompass in-depth problem-solving or field trips to local observatories.

REVISED COURSES

GS 113 Earth Science for Educators II
 GS 114 Earth Science for Ed II Lab

This course will be tailored for secondary science education majors (Bio, Chem, Physics and General Science Ed majors). Lectures in astronomy and meteorology will cover topics most pertinent to future teachers, while three-hour labs will emphasize problem-solving and outside observing.

Justification for revision of Earth Science for Educators II (GS 113-114)

- a. Justification for change in prerequisites: Earth Science has been our traditional survey course of the four branches of geoscience: geology, oceanography, meteorology and astronomy. In the past, this course served double-duty, fulfilling non-major science requirements and also giving science education majors an introduction to the geosciences. With the creation of our new Introduction to Geoscience non-major course sequence, Earth Science (MA) will be renamed Earth Science for Educators II, renumbered as GS 113-114 and made more specialized and useful to the future secondary teachers who will now be its sole audience. We plan to use a more expensive and longer-lasting textbook, so students can keep it for future reference. We also plan to tailor non-text readings to secondary education interests and to increase labs from two hours in length to three.
- b. Justification for changes in catalog description: The new catalog descriptions more accurately represent course content.
- c. Justification for change in lab hours: The change in lab hours will allow us to add more samples and more problem-solving applications to our lab exercises. Please see the proposal overview for a discussion of how the department plans to accommodate the one extra contact hour generated each semester by this change.

Old syllabi (appended)

Part III - Letters of Support (appended)

Biology - requested
 Chemistry - received

Physics - requested
College of Education - requested

New Syllabi of Record:

Syllabi of record are attached for the both parts of the revised course sequence Earth Science for Educators II (GS 113-114).

GS 113 Earth Science for Educators II

I. Catalog Description:

GS 113 Earth Science for Educators II

3 credits

3 lecture hours

Prerequisites: Natural Science/Science Education Majors only

(3c-0l-3sh)

An in-depth treatment of introductory meteorology and astronomy designed specifically for Secondary Science Education majors. Focuses on atmospheric processes and climate change; and on the earth's place in the solar system and universe.

II. Course Objectives

1. Students will learn about the Earth's atmosphere, weather and climate systems.
2. Students will understand the complexities and uncertainties of weather prediction.
3. Students will study theories of the formation and evolution of the universe.
4. Students will learn about stars, planets, galaxies, and other cosmological entities.
4. Students will gain enough knowledge and understanding of these processes to design and teach secondary classes in these subjects.

III. Course Outline

A. Basic principles of meteorology (6 hours)

1. The Earth's atmosphere

Air -- what's it made of

Layers and "pauses"

Atmospheric stability

2. Energy and radiation

Solar energy

Solar radiation

Temperature and heat

B. Weather dynamics (8 hours)

1. Water in the atmosphere

It's not the heat, it's the humidity!

Steel gray skies and puffy white clouds

Rain, sleet, snow and hail

2. What makes weather happen?

Pressure and wind

Air masses and fronts

Severe storms

Local winds

Other weather phenomena

C. Climate: the big picture (7 hours)

1. General circulation models

Circulation in the atmosphere

Modeling the Earth's climate

2. Global climate change

Global climates today

Ancient greenhouse climates

Ancient icehouse climates

Provoking Mother Nature

Ozone's disappearing act

D. A brief history of astronomy (4 hours)

1. History of astronomy

Astronomy versus astrology

Non-western astronomy

2. Mapping the sky

Motions

Coordinates

E. The Earth-Moon system (4 hours)

1. How the Earth moves

Rotation and revolution

Seasons

2. Our nearest neighbor

The Moon: motion

The Moon: characteristics

F. Our solar system (6 hours)

1. Space: the current frontier

Space exploration

Light and telescopes

2. The Planets

Mercury and Venus

Mars and Jupiter

The outer planets

Minor objects in the solar system

G. The Sun and other stars (7 hours)

1. Our local star
 - The Sun: characteristics
 - The Sun's solar energy
2. Other stars
 - Characteristics of stars
 - Varieties of stars
 - The life of a star
 - The Milky Way
 - Galaxies, quasars and life in the universe

IV. Evaluation

The final grade for this course will be determined as follows:

- 80% Tests. Four tests, consisting of short and long essay questions.
- 5% Quizzes. Several short unannounced quizzes will be given in class.
- 15% In-class writing assignments.

The final point total will be divided by maximum possible points and grades will be assigned on the scale: 90-100%=A; 80-89%=B; 70-79%=C; 60-69%=D; and below 60%=F.

V. Required Textbook, Supplemental Book and Readings

Tarback, E.J. and Lutgens, F.K., 1994, EARTH SCIENCE (7th Edition). New York: McMillan College Publishing Company, 755 p.

VI. Special Resource Requirements: None

VII. Bibliography:

Ahrens, C.D., 1994, METEOROLOGY TODAY: AN INTRODUCTION TO WEATHER, CLIMATE AND THE ENVIRONMENT (5th Ed.) New York: West Publishing 591 p.

Anthes, R.A., 1992, METEOROLOGY (6th Ed.). New York: Merrill Publishing, 218 p.

Chaisson, E.E. and McMillan, S., 1993, ASTRONOMY TODAY. Englewood Cliffs NJ: Prentice Hall, 658 p.

Ebbighausen, E.G. and Zimmerman, R.L., 1992, ASTRONOMY (6th Ed.). New York: Merrill Publishing, 196 p.

Engelbrekton, S., 1994, ASTRONOMY THROUGH SPACE AND TIME. Dubuque: Wm. C Brown, 448 p.

VII. Bibliography: (con't)

Lutgens, F.K. and Tarbuck, E.J., 1995, THE ATMOSPHERE (6th Ed.). Englewood Cliffs
NJ: Prentice Hall, 461 p.

Pasachoff, J.M., 1992, JOURNEY THROUGH THE UNIVERSE. Philadelphia: Saunders
College Publishing, 389 p.

Zeilik, M., 1994, ASTRONOMY - THE EVOLVING UNIVERSE (7th Ed.). New York:
John Wiley & Sons, 525 p.

GS 114 Earth Science for Educators II Lab

I. Catalog Description:

GS 114 Earth Science for Educators II Lab 1 credit
3 lab hours
Prerequisites: Natural Science/Science Education Majors only (0c-3l-1sh)
Co-requisites: Enrollment in GS 113

Use of the weather station and planetarium highlight a series of exercises designed to aid secondary science education majors in developing concepts and laboratory skills for future teaching.

II. Course Objectives

1. Students will learn how to measure meteorologic variable such as temperature and humidity.
2. Students will understand what various cloud formations indicate about current and future weather patterns.
3. Students will learn methods for plotting positions of the Sun, Moon, planets and stars.
4. Students will comprehend how time and directions are ascertained using the night sky.

III. Course Outline

- A. Collecting meteorologic data (3 labs)
 - Features of the earth's surface
 - Temperature and humidity
 - Clouds and precipitation
- B. Applying meteorologic principles (3 labs)
 - Mid-latitude storms
 - Weather map analysis
 - Climatic variability
- C. Mid-term Exam (1 lab)
- D. Seasons and stars (3 labs)
 - Seasons
 - Circumpolar and winter constellations
 - Spring constellations
- E. Stars, Moon and Planets (3 labs)
 - The Moon -- its surface features and motion
 - The planets -- distances, sizes and motion
 - The stars -- relationship between magnitude, size and temperature
- F. Final Exam (1 lab)

IV. Evaluation Methods

Grades for GS 113 (lecture) and GS 114 (lab) are reported separately and do not affect each other. Your grade for GS 114 will be determined as follows:

- 80% Tests. Two two-hour lab exams will consist of sample identification, map and chart analysis and short essay questions.
- 20% Quizzes. Weekly quizzes will consist of short answer or sample identification questions.

The final point total will be divided by maximum possible points and grades will be assigned on the scale: 90-100%=A; 80-89%=B; 70-79%=C; 60-69%=D; and below 60%=F.

V. Required Textbook, Supplemental Book and Readings

IUP Earth Science Lab Manual. This lab manual was locally developed to take advantage of the unique local weather conditions and planetarium facilities of IUP. Several nationally published lab manuals were consulted during the development process to ensure quality, parity and relevance to national trends in earth science teaching.

VI. Special Resource Requirements: None

VII. Bibliography:

Anthes, R.A., 1992, METEOROLOGY (6th Ed.). New York: Merrill Publishing, 218 p.

Chaisson, E.E. and McMillan, S., 1993, ASTRONOMY TODAY. Englewood Cliffs NJ: Prentice Hall, 658 p.

Ebbighausen, E.G. and Zimmerman, R.L., 1992, ASTRONOMY (6th Ed.). New York: Merrill Publishing, 196 p.

Lutgens, F.K. and Tarbuck, E.J., 1995, THE ATMOSPHERE (6th Ed.). Englewood Cliffs NJ: Prentice Hall, 461 p.

Suckling, P.W. and Doyon, R.R., 1991, STUDIES IN WEATHER AND CLIMATE (3rd Ed.). Raleigh: Contemporary Publishing Co., 202 p.

GS 103 Earth Science ASTRONOMY
Lecture Outline

Spring Session March 21 - May 4 1988
Mrs. C. Sutton
Office 136 Weyandt Hall
Office Hours see posted hours on office door

Lecture topics

History what is astronomy when and why did it develop ancient concept and ideas
(Chinese Egyptian Mayan Greek astronomers European Renaissance in
astronomy astrology pp 1 - 13

Earth motion time coordinate systems seasons pp 13 - 21

Radiation types and properties refraction and reflection spectra and spectroscopy
telescopes pp 37 - 54

Solar System

Moon motion phases tides surface features history pp 23 - 25

Space Exploration manned and unmanned contributions to society

Planets characteristics similarities and differences with earth and with each
other pp 57 - 63

Minor Members moons asteroids comets meteors pp 64 69-70 --- 81 87 - 97

Sun interior and atmospheric sections and roles surface features effects on earth
and man solar energy pp 97 - 104

Stars

General Characteristics distance motion magnitude size temperature H-R
Diagram pp 105 - 112

Multiple Stars binaries clusters (galactic and globular) pp 115 - 127

Life of a Star birth main sequence giant old age (dwarfs novae pulsars black
holes) pp 120 - 122 129 - 135

Galaxies Milky Way characteristics classification and characteristics of other
galaxies quasars theories of the Universe search for extraterrestrial life
pp 123 - 125 137 - 152

Text Ebbighausen 1985 Astronomy 5th edition and additional readings from
science journals and newspaper articles to be assigned

Course Assessment:

A mid-term and final will be given - each will contain questions which will
encourage you to reason through a problem or situation to synthesize what you
have learned as well as containing the normal content oriented questions - each
test will be 100 questions in length - will contain multiple choice true/false and
matching questions - test will be op-scan computer corrected. The first test will
cover the material from History through Space Exploration. The second will cover
the remainder of the lecture topics. Final assessment for GS 103 (Meteorology and
Astronomy) will be 50% Meteor and 50% Astro. The grades on each test will be
adjusted to a mean of 75% so that 90% = A, 80 - 89% = B, 70 - 79% = C, 60 - 69% = D and
59% = F. Lecture and laboratory grades are reported separately and do not affect
each other.

Units

Although many units are in the International System of Units (metric) additional references will be included from the English System to aid the student to adapt to metric. Special astronomy units (Astronomical Unit, light year, parsec) will also be used.

Astronomy Terms

You should become familiar during the course with the meanings of the following terms:

geocentric and heliocentric, aphelion and perihelion, rotation and revolution, ecliptic, zodiac, refraction and reflection, planet, star, comet, asteroid, meteorite, sidereal time and synodic time, accretion and expulsion, altitude and azimuth, horizontal coordinates, zenith and horizon, equatorial coordinates, right ascension and declination.

GS 104 Earth Science ASTRONOMY
Laboratory Outline

Spring Session March 21 - May 4 1988
Mrs C Sutton
Office 135 Weyandt Hall
Office Hours see posted hours on office door

Lab Topics

- Constellations and Stars history and use of constellations identification and description of Circumpolar Winter and Spring Constellations and the bright stars in these Weeks 1 & 5
- Seasons cause of the seasons view of our sunrise noon and sunset positions during each season view of the seasons from the North Pole Arctic Circle Tropic of Cancer Equator and Tropic of Capricorn explanation of how to determine seasonal parameters (hours of sunlight efficiency of sunlight) given a location and date Week 2
- Moon description of lunar surface features coordinates used to locate features phases of the moon when moon can be seen plotting lunar positions using stellar coordinates (right ascension and declination) keeping track of time (week month) with the moon's motion Week 3
- Planets making a scale model of planet distances from the sun making a scale model of planets sizes plotting positions of Jupiter and earth over a six month period plotting planetary configurations (such as opposition) plotting the current planetary positions using heliocentric longitudes (making a map of the current picture of the solar system) Week 4
- H-R Diagram magnitude and classification of stars plotting stellar characteristics on a chart describing the different stellar characteristics on various sections of the chart comparing the sun's characteristics to other stars surveying characteristics of bright stars and of neighborhood stars Week 5

Text: Lab Manual Astronomy by C Sutton 1988 at Kinoko's

Course Assessment:

Each week a ten point quiz will be given on the previous week's lab. These five quizzes (50 point potential) and the 100 point lab final will be used to determine the student's astronomy lab average. The quizzes and final will contain working questions - measuring plotting determining answers from facts and data. Final assessment for GS 104 (Meteorology and Astronomy Lab) will be 50% Meteor and 50% Astro. The total point score in astro will be adjusted up to a mean of 75% (if necessary) so that 90% = A 80 - 89% = B 70 - 79% = C 60 - 69% = D and 59% = F. Lecture and laboratory grades are reported separately and do not affect each other.

Astronomy Terms:

Constellation, zodiac, ecliptic, celestial meridian, altitude, azimuth, declination, perihelion, aphelion, celestial equator, slanted rays, vertical rays, tilt, heliocentric longitude, opposition, conjunction, quadrature, elongation, crater, maria, sidereal month, synodic month, right ascension, giant star, main sequence star, dwarf star, absolute magnitude, spectral class

GS103 EARTH SCIENCE
METEOROLOGY PORTION
SPRING 1988

Professors Paul Prince/Frederick Park

Outline of topics:

Introduction to meteorology

- Meteorology as a science, brief history of major ideas and theories
- Dimensions and cartesian coordinates
- Eulerian and Lagrangian measurements
- Units of measurement and conversion between units
- Problems in studying meteorology

Composition and structure of the atmosphere

- Permanent and variable gases
- Chemical and thermal structure of the atmosphere
- Meteorological instruments

Radiation

- The electromagnetic spectrum
- Characteristics of solar radiation
- Characteristics of terrestrial radiation
- The radiation laws (Planck's, Kirchoff's, Stefan-Boetzman's, Wiens', Boyle's and Charles Gas Laws)
- Heat budget of the planet
- Heat engine

Humidity and the hydrologic cycle

- Humidity indices (relative humidity, absolute and specific humidity, dew point, and so on)

The adiabatic diagram

- Stable and unstable air
- Using the adiabatic diagram

Pressure and winds

Air masses and fronts

The cyclone

Storm structures: thunderstorms and tornadoes

Circulation of the atmosphere

Air pollution

The Greenhouse Effect

Solar radiation as a source of energy utilized by man

The future: problems and prospects

Text:

Miller and Anthes, 1985, Meteorology, 5th ed. and additional readings from scientific journals and newspaper articles will be assigned.

Course assessment:

You will be responsible for reading all nine chapter of the above text. Exams will be based upon both text and lecture material. Lectures follow textbook chapters in sequence. Lectures will emphasize only certain portions of each chapter. There

13

will be two examinations questions are of recall type--short essay--no multiple choice or true-false questions. The exams will be 4-5 pages long and will consist of 15-25 questions. The final exam is comprehensive. You are responsible for all equations and diagrams used in lecture. Quizzes will be given weekly to evaluate both individual and class understanding. These quizzes will include interpretation of diagrams and short answers questions (multiple choice and matching). Your final grade will be based on two tests which count 80%, quizzes which will count 10% and class assignments which will count 10%. No late class assignments will be accepted. If necessary, the grades on the tests will be adjusted to a mean - 75% such that: 90% - A, 80-89% - B, 70-79% - C, 60-69% - D, and 59% - F. The final grade in the course will be 50% Meteorology and 50% Astronomy.

GS 104 EARTH SCIENCE LAB
METEOROLOGY PORTION
SPRING 1988

14

Prof. Prince, Park

Schedule of Labs

- Lab 1: Meteorological instruments: thermometers (mercury, alcohol, thermister) and different temperature scales, barometer (Fortin and aneroid), anemometer (savonis and Robinson), hygrometer (sling psychrometer, Assman psychrometer, electrical hygrometer, and hair hygrometer), wind vane and actual measurements of temperature, dew point, pressure, wind direction and speed and calculation of relative humidity (use of the psychrometric chart). You will use these instruments to measure the weather parameters of that day. You will also practice converting from one unit of measurement to another (temperature, pressure, wind speed and wind direction).
- Lab 2: The classification and identification of clouds (cirrus, cirrostratus, cirrocumulus, altocumulus, altostratus, stratus, stratocumulus, nimbostratus, cumulus, cumulonimbus, lenticular, mammatus, banner, pilus, virga) and their significance in terms of weather. Actual observation of clouds and record of weather. Visit to weather station on roof of Weyandt.
- Lab 3: Heat balance and the (mental) construction of a greenhouse to illustrate heat loss and gain by interactions of incoming solar radiation, the Earth's surface, the upper atmosphere, water in its different phases in the atmosphere.
- Lab 4: Humidity and the Pseudoadiabatic Chart: relationships between humidity and pressure, relative humidity and mixing ratio, relative and absolute humidity, determination of altitudes of cloud formations for a given environmental lapse rate, calculation of dew points of any parcel of air given its temperature, pressure, and mixing ratio, and determination of relative stability of air and the change of stability with increasing or decreasing altitude.
- Lab 5: Introduction to weather map: plotting weather information on a map using the international standard symbolic weather station model (you will plot wind direction and speed, type of clouds and amount of sky covered by clouds, temperature and dew point, pressure and pressure change in the past 3 hours, present weather, past weather, amount and time of precipitation) and contour the distribution of pressure (isobars) on a map. You will plot this information on a large weather map which will be used also in lab 6.
- Lab 6: Weather map: having plotted the weather information from about 50 weather stations across the contiguous USA you will analyze that weather map by locating the areas of high and low pressure, locating and labelling the appropriate weather fronts, and forecasting the weather based on your interpretation.
- Lab 7: End-of-course test.

15
There is no text for this course. You will be given the necessary information and laboratory sheets in class

Assessment.

The course assessment will be based on 5 quizzes given at the beginning of lab periods 2-6 and an end-of-course test. The quizzes will be worth 10 points each and will count 25% toward your grade. The test will count 75% toward your grade in the meteorology portion of GS104. Your final grade in GS104 will be 50% Astronomy and 50% Meteorology. If necessary, the mean on the test will be adjusted to 75% such that $\geq 90\%$ - A, 80-89% - B and so on.

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

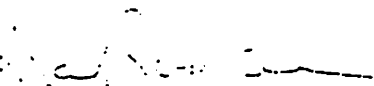
I have attached a course revision proposal which affects the GS 101-104 Earth Science course sequence taken by many Secondary Science Education majors. As part of a major overhaul of our introductory classes, the Geoscience Department plans to rename this course sequence Earth Science for Educators I 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.

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

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Thanks.

Date: March 22, 1995

To: Pothan 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.

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.

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.

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



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,

A handwritten signature in cursive script that reads "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
~~Ms. [redacted]~~

12.GS111.MEM

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

(412) 357-2730



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,

A handwritten signature in cursive script, appearing to read 'Miriam Chaiken'.

Miriam Chaiken, Ph. D.
Chairperson