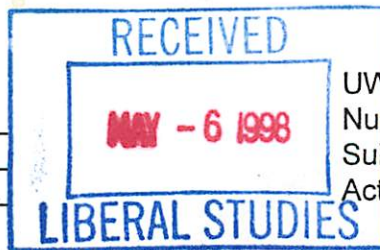


LSC Use Only
Number: _____
Submission Date: _____
Action-Date: _____



UWUCC USE Only
Number: 98-14a
98-23a
Submission Date: _____
Action-Date: UWUCC App 10/19/99
Senate App 2/1/00

CURRICULUM PROPOSAL COVER SHEET
University-Wide Undergraduate Curriculum Committee

I. CONTACT

Contact Person Darlene Richardson/Karen Rose Cercone Phone x 2379

Department Geoscience

II. PROPOSAL TYPE (Check All Appropriate Lines)

_____ **COURSE** _____
Suggested 20 character title

_____ **New Course*** _____
Course Number and Full Title

_____ **Course Revision** _____
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* BS Geology
Program Name

_____ **Program Deletion*** _____
Program Name

_____ **Title Change** _____
Old Program Name

_____ **New Program Name**

III. Approvals (signatures and date)

Darlene Richardson
Department Curriculum Committee

Paul Hall
Department Chair

[Signature]
College Curriculum Committee

John D. Ed
College Dean

[Signature]
+ Director of Liberal Studies (where applicable)

[Signature]
*Provost (where applicable)



Rev.



II. DESCRIPTION OF CURRICULUM CHANGE

1. Catalog Description

The catalog description of the program remains the same as in the current undergraduate catalog with the following changes in program specifications.

Bachelor of Science--Geology

Liberal Studies: as outlined in Liberal Studies section with the following specifications: **56-57**

Mathematics: MA 121 or 123

Natural Science: CH 111/112 or 113/114

Liberal Studies elective: MA 122 or 124, no courses with GS prefix

Major: **44**

Required courses (1)

GS 121/122	Physical Geology lecture and lab	4sh
GS 131/132	Historical Geology lecture and lab	4sh
GS 321	Mineralogy	3sh
GS 322	Igneous and Metamorphic Petrology	3sh
GS 325	Structural Geology	3sh
GS 326	Field Geology or summer field course (offered by other universities)(1,2)	3sh
GS 330	Paleontology	3sh
GS 362	Plate Tectonics	3sh
GS 380	Research Techniques in Geoscience	2sh
GS 411	Sedimentary Petrology	3sh
GS 412	Stratigraphy or GS 327 Geomorphology	3sh
GS 480	Geoscience Seminar	1sh

Controlled Electives:

GS courses 300 or above 9sh

Other Requirements **8-14**

Additional Science:

PY 111/121	Physics I Lecture/Lab	4sh
PY 112/122	Physics II Lecture/Lab	4sh
	Foreign Language Intermediate Level (3,4)	0-6sh

Free Electives: **9-16**

Total Degree Requirements

124

- (1) Summer field camp in geology (5-9sh) is strongly recommended.
- (2) A maximum of six credits from approved summer field camp may apply to a required core and controlled electives (3).
- (3) Intermediate-level foreign languages may be included in Liberal Studies electives.
- (4) Six credits of computer language may substitute for the foreign language requirement: CO 110 and CO 310 (recommended), or other higher-level CO courses with department permission in consultation with the Computer Science Department.

2. Summary of proposed changes:

We propose the following changes to the BS in Geology, shown in comparison to the current program below:

CURRENT PROGRAM

Mathematics: MA 123
 Liberal Studies Electives: MA 124, no courses with GS prefix

Six credits of computer language may be used to meet the foreign language requirement: CO 220, 310 or higher-level CO classes with department permission in consultation with the Computer Science Department

PY 111 Physics I Lecture 4sh
 PY 112 Physics II Lecture 4sh

PROPOSED PROGRAM

Mathematics: MA 121 or MA 123
 Liberal Studies electives: MA 122 or MA 124, no courses with GS prefix

Six credits of computer language may substitute for the foreign language requirement: CO 110 and 310 (recommended) or higher-level CO classes with department permission in consultation with the Computer Science Department.

PY 111/121 Physics I Lecture/Lab 4sh
 PY 112/122 Physics II Lecture/Lab 4sh

Added to Required Courses:
 GS 380 Research Techniques in Geoscience

We request permission to change our mathematics requirement to include the sequence MA 121/MA 122 in addition to MA 123/MA 124. This will bring our math requirement into line with our chemistry requirement, which currently gives students the option of taking either the basic introductory sequence (CH 111/112) or a more rigorous introductory course (CH 113/114). After two years of requiring all students to take the more rigorous mathematics course, we have found that transfer students from other campuses and students without previous computer experience are often set back by the need to learn the Mathematica computer program in order to pass the MA 123/MA 124 sequence. We will continue to encourage all our students to take calculus at the most rigorous level they can handle, but we would also like to give them the option of a solid but less computer-oriented course

Given the recent change in CO 110 Problem Solving and Structured Programming from use of FORTRAN to C++ (using a procedural approach) and the continued use of C++ in CO 310 Data Structures (using an object oriented approach), we believe that the sequence CO 110 and CO 310 is more appropriate to our students' needs than CO 220 and CO 310. This change has been expressly recommended and endorsed by the Computer Science Department. We

changed the wording from “may be used to meet” to “may substitute for” in footnote (4) as suggested by the college curriculum committee.

The change in Physics requirement simply reflects the existing Physics introductory sequence. The 1997-1998 catalog mistakenly lists PY 111 Physics I lecture (4sh) and PY 112 Physics II lecture (4sh) when it should have listed PY 111/121 Physics I lecture/lab (4sh) and PY 112/122 lecture/lab (4sh). We are taking this opportunity to correct this error.

Finally, we request permission to add the existing course GS 380, Research Techniques in Geoscience, to our list of required core courses. GS 380 was created in 1995 specifically to be a core course taken by first-semester seniors, but mistakenly was not included as such in our 1995 program revision. We apologize for this error and would like to rectify it. GS 380 Research Techniques in Geoscience gives students an overview of geologic research techniques as well as experience in carrying out a geologic research project and then writing it up for professional publication. It was designed to form the research basis on which students could build when taking the required second-semester senior course, GS 480 Geoscience Seminar. Since most of our seniors already take GS 380 as a controlled elective, adding this course to the core will simply ensure that all students enter GS 480 with equal footing. The addition of GS 380 (2sh) to our core will not significantly impact the number of free electives that remain in the major. Free electives will decrease from a range of 11-18sh to 9-16sh. This change will put us on par with the BS in Chemistry (9-17 free electives) and the BS in Biology (13 free electives.)

III. IMPLEMENTATION

1. Students currently in the program will continue to take MA 123/124 and may take GS 380 as a controlled elective. Students entering the program in Fall 1998 will have the option of taking MA 121/122 or MA 123/124 and will take GS 380 as a required core course. Current students who opt for the computer literacy component instead of the foreign language requirement will be given the opportunity to take either CO 220 and CO 310 (or other higher-level CO course) or CO 110 and CO 310 (or other higher-level CO course). Students who enter in Fall 1998 will take CO 110 and CO 310 (or other higher-level CO course). The change in the Physics requirement is simply a correction of what was mistakenly listed in the catalog--our students have always taken Physics I and II lecture and lab.
2. The proposed changes will not affect teaching loads. We have a letter of support from Mathematics. We have taught GS 380 for two years now and have accommodated the course by rotation of some of our 300- and 400-level courses. No additional faculty has been authorized.
3. Other resources are adequate.
4. We do not expect either an increase or a decrease in enrollments as a result of this revision.

IV. COURSE PROPOSALS--no course proposals necessary

V. LETTERS OF SUPPORT

Letters of support from the Liberal Studies Committee, Computer Science and Mathematics are contained in Appendix I.