SIDE-BY-SIDE COMPARISON Strike-through to be eliminated

### **CURRENT**

DEGREE: BACHELOR OF SCIENCE MAJOR: GEOLOGICAL SCIENCE

UNIVERSITY REQUIREMENTS CF	
ENGL110	3
First Year Experience (FYE)	
Breadth Requirements *fulfilled by college breadth	
Requirements below	
Discovery Learning Experience (DLE) *can be fulfilled	by 3
field experience major requirement	
Multicultural Courses	3

### **COLLEGE REQUIREMENTS**

Second Writing Requirement (minimum grade of C-)

A second writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken after completion of 60 credit hours. Appropriate writing courses are normally designated on the registrar's course search page. NOTE: GEOL 401 is recommended to fulfill this requirement.

Foreign Language 0-12

Successful completion of the intermediate-level course (107 or 112 or 214) in an ancient or modern lanquage. The number of credits needed and initial placement will depend on number of years of high school study of foreign language. Students with four or more years of high school work in a single foreign language, or who have gained proficiency in a language by other means, may attempt to fulfill the requirement in that language by taking an exemption examination through the Foreign Languages and Literatures Department.

# **COLLEGE BREADTH REQUIREMENTS**

If the grade earned is sufficient, a course may be applied toward more than one requirement (e.g., breadth and major requirements), but the credits are counted only once toward the total credits for graduation.

\*note: 3 credits in each category below can be used to fulfill the University Breadth requirement

Creative Arts and Humanities 6
Understanding and appreciation of the visual and performing arts, of aesthetic forms, designs, or craftsmanship, or of literary, philosophical, and intellectual traditions. Courses may focus on a single aesthetic form or intellectual tradition, or cross-cultural comparisons.

SIDE-BY-SIDE COMPARISON Highlighted to be added

### **PROPOSED**

DEGREE: BACHELOR OF SCIENCE MAJOR: GEOLOGICAL SCIENCE

UNIVERSITY REQUIREMENTS	REDITS
ENGL110	3
First Year Experience (FYE)	0-4
Breadth Requirements *fulfilled by college breadth	
Requirements below	
Discovery Learning Experience (DLE) *can be fulfilled b	y 3
field experience major requirement	
Multicultural Courses	3

#### **COLLEGE REQUIREMENTS**

Second Writing Requirement (minimum grade of C-)

A second writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken after completion of 60 credit hours. Appropriate writing courses are normally designated on the registrar's course search page. NOTE: GEOL 401 is recommended to fulfill this requirement.

Foreign Language 0-12

Successful completion of the intermediate-level course (107 or 112 or 214) in an ancient or modern lanquage. The number of credits needed and initial placement will depend on number of years of high school study of foreign language. Students with four or more years of high school work in a single foreign language, or who have gained proficiency in a language by other means, may attempt to fulfill the requirement in that language by taking an exemption examination through the Foreign Languages and Literatures Department.

# **COLLEGE BREADTH REQUIREMENTS**

If the grade earned is sufficient, a course may be applied toward more than one requirement (e.g., breadth and major requirements), but the credits are counted only once toward the total credits for graduation.

\*note: 3 credits in each category below can be used to fulfill the University Breadth requirement

Creative Arts and Humanities 6
Understanding and appreciation of the visual and performing arts, of aesthetic forms, designs, or craftsmanship, or of literary, philosophical, and intellectual traditions. Courses may focus on a single aesthetic form or intellectual tradition, or cross-cultural comparisons.

Understanding of the sources and forces of historical changes in ideas, beliefs, institutions, and cultures. Courses may address social, cultural, intellectual, economic, technological, artistic, scientific, and political development, changes in a discipline, or globalization and its effects.

Social and Behavioral Sciences Understanding of the behavior of individuals and social groups in the context of their human and natural environments. Courses emphasize the empirical findings, applications, and methods of the social and behavioral sciences.

# **MAJOR REQUIREMENTS**

GEOL 107 General Geology	4
GEOL 110 Earth History	4
GEOL 202 Earth Materials	4
GEOL 203 Surficial Processes	4
GEOL 304 Sedimentology and Stratigraphy	4
GEOL 305 Structural Geology and Plate Tectonics	4

#### Geology Field Experience

An approved geology field experience in which the student integrates the components of his or her geologic studies in an experiential learning environment. Experience MUST include data collection, manipulation of data sets and reports/field notes. This requirement could be fulfilled by a senior thesis, internship, field camp, study abroad experience and/or a research experience so long as the above criteria are met. Note: this course must satisfy the DLE Requirement.

### **Geology Electives**

GEOL 385 or any 400-level or above GEOL or MAST courses approved by the department. See your advisor for the list of approved courses. Courses that are used to satisfy the Geology Field Experience Requirement cannot be used to satisfy the Geology Electives Requirement.

NOTE: A minimum grade of C- is required in each of the above Major Requirement courses (including the Geology Field Experience and Geology Electives courses). The total number of credits for these courses must be at least 45.

MATH 241 Analytic Geometry and Calculus A	4
MATH 242 Analytic Geometry and Calculus B	4
BISC 207 Introductory Biology I	4
CHEM 103 General Chemistry	4
PHYS 201 Introductory Physics I	
One of the following:	
BISC 208 Introductory Biology II	4

**CHEM 104 General Chemistry** 

PHYS 202 Introductory Physics II

## History and Cultural Change

Understanding of the sources and forces of historical changes in ideas, beliefs, institutions, and cultures. Courses may address social, cultural, intellectual, economic, technological, artistic, scientific, and political development, changes in a discipline, or globalization and its effects.

Social and Behavioral Sciences

6

6

Understanding of the behavior of individuals and social groups in the context of their human and natural environments. Courses emphasize the empirical findings, applications, and methods of the social and behavioral sciences.

## **MAJOR REQUIREMENTS**

GEOL 107 General Geology	4
GEOL 110 Earth History	4
GEOL 202 Earth Materials	4
GEOL 203 Surficial Processes	4
GEOL 304 Sedimentology and Stratigraphy	4
GEOL 305 Structural Geology and Plate Tectonics	4

#### Geology Field Experience

3-6

An approved geology field experience in which the student integrates the components of his or her geologic studies in an experiential learning environment. Experience MUST include data collection, manipulation of data sets and reports/field notes. This requirement could be fulfilled by a senior thesis, internship, field camp, study abroad experience and/or a research experience so long as the above criteria are met. Note: this course must satisfy the DLE Requirement.

### **Geology Electives**

15-18

15-18

4

GEOL 385 or any 400-level or above GEOL or MAST courses approved by the department. See your advisor for the list of approved courses. Courses that are used to satisfy the Geology Field Experience Requirement cannot be used to satisfy the Geology Electives Requirement.

NOTE: A minimum grade of C- is required in each of the above Major Requirement courses (including the Geology Field Experience and Geology Electives courses). The total number of credits for these courses must be at least 45.

MATH 241 Analytic Geometry and Calculus A	4
MATH 242 Analytic Geometry and Calculus B	4
BISC 207 Introductory Biology I	4
CHEM 103 General Chemistry	4
PHYS 201 Introductory Physics I	4
One of the following:	
BISC 208 Introductory Biology II	4
CHEM 104 General Chemistry	

PHYS 202 Introductory Physics II

Two additional quantitative or analytical science,
mathematics, or engineering courses. Contact your
academic advisor for the Department's list of approved
courses.

### **ELECTIVES**

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF

124

Two of the following additional quantitative or analytical science, mathematics or engineering courses 6-8

APEC 480	GIS in Natural Resource Management	4	
Any CIEG o	course at the 200 level or above except		
CIEG222 and CIEG233			
CISC 106	General Computer Science for Engineers	3	
CISC 108	Introduction to Computer Science I	3	
CISC 181	Introduction to Computer Science II	3	
GEOG 271	Introduction to Geographic Data Analysis	3	
GEOG 372	Introduction to GIS	3	
GEOG 471	Advanced GIS	3	
MAST 455	Geophysical Fluid Dynamics	3	
MAST 497	Bioinformatics Programming for Biologists	3	
MAST 669	Statistics for Marine Sciences	3	
MATH 201	Introduction to Statistical Methods	3	
MATH 243	Analytic Geometry and Calculus C	4	
MATH 302	Ordinary Differential Equations	3	
MATH 341	Differential Equations with Linear Algebra I	3	
STAT 200	Basic Statistical Practice	3	
STAT 475/	ENSC 475 Environmental Statistics	3	
STAT 657/	GEOL 657 Statistics for Earth Sciences	3	

## **ELECTIVES**

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF

124