## LIBERAL ARTS AND SCIENCES: BACHELOR OF SCIENCE GEOLOGY

| VI. MAJOR PROGRAM: 44 sh . |  |  |
| :---: | :---: | :---: |
| A. REQUIRED COURSES: 38 S.H. | Gr. | S.H. |
| GEL 100 Physical Geology |  | 4 |
| GEL 102 Historical Geology |  | 4 |
| GEL 200VL Field Geology |  | 3 |
| GEL 220CT Mineralogy |  | 4 |
| GEL 230WI Paleontology |  | 3 |
| GEL 304CT Structural Geology |  | 4 |
| GEL 316VL Petrology \& Geochemistry |  | 4 |
| GEL 346WI Sedimentology \& |  | 4 |
| GEL 358CI Geophysics |  | 3 |
| GEL 362QL Hydrogeology |  | 3 |
| GEL 380WI Senior Seminar |  | 2 |
| B. ELECTIVE: 6 S.H. |  |  |
| GEL 210 Environmental Geology |  | 3 |
| GEL 302 Economic Geology |  | 3 |
| GEL 324 Geomorphology |  | 3 |
| GEL 366 Marine Geology |  | 3 |
| GEL 368 Research in Geology I |  | 1-3 |
| GEL 369 Research in Geology II |  | 1-3 |
| GEL 371-373 Selected Topics |  | 1-6 |
| GEL 390 Internship in Geology |  | 1-4 |
| GEL 398 Honors Suppl. Research TOTAL SEMESTER HOURS |  | 1-3 |
|  |  |  |
| VII. CONCOMITANT COURSES: 26-29 S.H. |  |  |
| A. CHEMISTRY: 8 S.H. | Gr. | S.H. |
| CHM 100 General Chemistry I CHM 102 General Chemistry II |  | 4 |
|  |  | 4 |
| B. PHYSICS: 8 S.H. |  |  |
| PHY 040 OR PHY 100 |  | 4 |
| PHY 042 OR PHY 102 |  | 4 |
| C. MATHEMATICS: 6-9 S.H. |  |  |
| >>>>Option 1 |  |  |
| MAT 105 College Algebra |  | 3 |
| MAT 106 Trigonometry |  | 3 |
| MAT 171 Calculus I |  | 3 |
| >>>>0ption 2 |  |  |
| MAT 115 Precalculus MAT 171 Calculus I |  | 3 |
|  |  | 3 |
| >>>0ption 3 |  |  |
| MAT 171 Calculus I MAT 172 Calculus II |  | 3 |
|  |  | 3 |
| D. BIOLOGY: 4 S.H. |  |  |
| BIO 104 Principles of Biology |  | 4 |


| VIII. GRADUATION CLEARANCE |  |
| :--- | :--- |
| A. Cumulative Q.P.A. |  |
| B. Total Semester Hours |  |
| a. General Education |  |
| b. Major Program |  |
| c. Concomitant |  |
| GRAND TOTAL |  |
| C. Comprehensive Exam Passed |  |
| yes |  |


| NOTES |
| :--- |
| *GEG 274 is strongly recommended to fulfill |
| this category. |
| $* *$ PSY $011 \&$ SOC 010 are prerequisites to most |
| other courses in their respective disciplines. |
| $* * *$ GEG - - Non-laboratory courses only allowed |
| in this category. |
| A minimum of 120 s.h. are required for |
| graduation. |

Program Code: ULASGEOS
Effective Date of Program: Fall 2011
Reviewed: 2/2011

COLLEGE OF LIBERAL ARTS \& SCIENCES • BS • GEOLOGY

## GENERAL EDUCATION

| I. UNIVERSITY CORE (12 credits) | RC | CR | GR |  |
| :---: | :---: | :---: | :---: | :---: |
| A. Oral Communication: Сом 10 or above |  |  |  |  |
| course: | 3 |  |  |  |  |
| B. Written Communication: ENG 23, 24, or 25 |  |  |  |  |
| COURSE: | 3 |  |  |  |
| C. Mathematics: MAT 17 or above |  |  |  |  |
| COURSE: | 3 |  |  |  |
| D. Wellness: Any 3-credit HEA course |  |  |  |  |
| COURSE: | 3 |  |  |  |
| II. UNIVERSITY DISTRIBUTION ( 15 credits) | RC | CR | GR | CAC |
| A. Natural Sciences: Any lab or non-lab course with prefix AST, BIO, CHM, ENV, GEL, MAR, NSE, or PHY; or certain GEG courses (see note at right) |  |  |  |  |
| COURSE: | 3 |  |  |  |
| B. Social Sciences: Any course with prefix ANT, CRJ, ECO, HIS, INT, MCS, PSY, POL, SOC, SSE, or SWK; or certain GEG courses (see note at right) |  |  |  |  |
| COURSE: | 3 |  |  |  |
| C. Humanities: Any course with prefix ENG, HUM, PAG, PHI, WRI, WGS, or Modern Language |  |  |  |  |
| COURSE: | 3 |  |  |  |
| D. Arts: Any course with prefix ARC, ARH, ART, CDE, CDH, CFT, DAN, FAR, FAS, MUP, MUS, or THE |  |  |  |  |
| COURSE: | 3 |  |  |  |
| E. Free Elective: Any course carrying university credit |  |  |  |  |
| COURSE: | 3 |  |  |  |


| III. COMPETENCIES ACROSS THE CURRICULUM | RC | CR | GR | CAC |
| :---: | :---: | :---: | :---: | :---: |
| A. Writing Intensive (WI) (9 credits) |  |  |  |  |
| COURSE: | 3 |  |  | WI |
| COURSE: | 3 |  |  | WI |
| COURSE: | 3 |  |  | WI |
| B. Quantitative Literacy (QL) (3 credits) 国I Computer-Intensive (CP) (3 credits) |  |  |  |  |
| course: | 3 |  |  |  |
| C. Visual Literacy (VL) (3 credits) 國 Communication-Intensive (CM) |  |  |  |  |
| course: | 3 |  |  |  |
| D.Cultural Diversity (CD) (3 credits) |  |  |  |  |
| COURSE: | 3 |  |  | CD |
| E. Critical Thinking (CT) (3 credits) |  |  |  |  |
| course: | 3 |  |  | CT |

A Competency Across the Curriculum (CAC) course is not a separate course, but rather an overlay that is "double counted" as fulfilling both the CAC requirement and another requirement in either General Education (except for the University Core), the major, or the minor.

RC = Minimum required number of credits
$\mathbf{C R}=$ Credits earned (fill in number of credits)
GR = Grade earned (fill in letter grade)
CAC = Competency Across the Curriculum (fill in designation)

NOTE: GEG courses with a lab and 40, 322, and 323 may be used in II.A. and GEG courses $40,204,274,304,322,323,324,347$, 380 , and 394 may NOT be used in II.B.

| IV. COLLEGE DISTRIBUTION (33 credits) | RC | CR | GR | CAC |  | RC | CR | GR | CAC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A. Natural Science, Mathematics, and Computer Science\# (6 credits): choose one course in each subcategory. |  |  |  |  | C. Humanities (9 credits): Choose one course in each subcategory. |  |  |  |  |
|  |  |  |  |  | 1. Elective: PAG*, ENG, WRI, or HUM |  |  |  |  |
| 1. Natural Science with Lab: Ast, bio, снm, ENV, GEL, PHY, or MAR; or GEG (see note at right) |  |  |  |  | COURSE: | 3 |  |  |  |
| COURSE: | 3 |  |  |  | 2. Elective: Modern Language (103 or above) or PHI |  |  |  |  |
| 2. Elective: MAT, CSC, AST, BIO, CHM, ENV, GEL, PHY, or MAR; or GEG (see note at right) |  |  |  |  | COURSE: | 3 |  |  |  |
| COURSE: | 3 |  |  |  | 3. Elective: PAG*, ENG, WRI, HUM, Modern Language (103 or above), or PHI |  |  |  |  |
| B. Social Science (9 credits): Choose one course in each subcategory. |  |  |  |  | COURSE: | 3 |  |  |  |
| 1. Elective: HIS, ANT, GEG (see note at right), or POL |  |  |  |  | D. Free Electives (9 credits): Choose any university courses that count toward graduation. |  |  |  |  |
| COURSE: | 3 |  |  |  | COURSE: | 3 |  |  |  |
| 2. Elective: PSY, SOC, CRJ, or SWK |  |  |  |  | COURSE: | 3 |  |  |  |
| COURSE: | 3 |  |  |  | COURSE: | 3 |  |  |  |
| 3. Elective: ANT, HIS, ECO, GEG (see note at right), PSY, POL, SOC, CRJ, or SWK |  |  |  |  |  |  | be u |  |  |
| COURSE: | 3 |  |  |  | in IV.A. and GEG courses $40,204,274,304,322,32$ 380 , and 394 may NOT be used in IV.B. |  | $24,347$ |  |  |

[^0]
# Geology Course Plan - Option A 

| Fall 2010 |  | Spring 2011 |  |
| :---: | :---: | :---: | :---: |
| Physical Geology | 4 | Historical Geology | 4 |
| Chemistry 100 | 4 | Chemistry 102 | 4 |
| MAT105 College Algebra | 3 | MAT106 Trigonometry | 3 |
| Composition 023 | 3 | General education class (easy one) | 3 |
|  | 14 |  | 14 |


| Fall 2011 |  | Spring 2012 |  |
| :---: | :---: | :---: | :---: |
| Mineralogy ${ }^{1}$ | 4 | Petrology/Geochemistry | 4 |
| Physics 040 | 4 | Physics 042 | 4 |
| Calculus MAT171 | 3 | Bio104 | 4 |
| Speech | 3 | General education class (easy one) | 3 |
| General education class | 3 |  |  |
|  | 15 |  | 15 |


| Fall 2012 |  | Spring 2013 |  |
| :---: | :---: | :---: | :---: |
| Geophysics | 3 | Hydrogeology | 3 |
| Field Methods | 3 | Structural Geology | 4 |
| Intro to GIS (category IIIC) | 3 | Advanced GIS (category IIID) | 3 |
| General education class | 3 | General education class | 3 |
| General education class | 3 | Health | 2 |
|  |  | PE | 1 |
|  | 15 |  | 16 |


| Fall 2013 |  | Spring 2014 |  |
| :---: | :---: | :---: | :---: |
| Geomorphology | 3 | Sed/Strat | 4 |
| Paleontology | 4 | Geology Elective | 3 |
| General education class | 3 | Geology Senior Seminar | 2 |
| General education class | 3 | General education class | 3 |
| General education class | 3 | General education class | 3 |
|  | 16 |  | 15 |

Bold = lab class
$\rightarrow=$ prerequisite for this course
$\rightarrow=$ not required, but helpful preparation for this course

[^1]
# Geology Course Plan - Option B 

| Fall 2010 |  |
| :--- | :---: |
| Physical Geology | 4 |
| MAT105 College Algebra | 3 |
| Composition 023 | 3 |
| General education class | 3 |
| General education class | 3 |
|  | 16 |


| Spring 2011 |  |
| :--- | :---: |
| Historical Geology | 4 |
| MAT106 Trigonometry | 3 |
| General education class | 3 |
| Bio104 | 4 |
|  |  |
|  | 14 |


| Fall 2011 |  | Spring 2012 |  |
| :---: | :---: | :---: | :---: |
| Mineralogy ${ }^{2}$ | 4 | Petrology/Geochemistry | 4 |
| Chemistry 100 | 4 | Chemistry 102 | 4 |
| Calculus MAT171 | 3 | Geology Elective | 3 |
| General education class | 3 | General education class (easy one) | 3 |
| P.E. | 1 |  |  |
|  | 15 |  | 14 |


| Fall 2012 |  | Spring 2013 |  |
| :---: | :---: | :---: | :---: |
| Field Methods | 3 | Structural Geology | 4 |
| Physics 040 | 4 | Physics 042 | 4 |
| Intro to GIS (category IIIC) | 3 | Advanced GIS (category IIID) | 3 |
| Speech | 3 | General education class | 3 |
| General education class | 3 | Health | 2 |
|  | 15 |  | 16 |


| Fall 2013 |  | Spring 2014 |  |
| :---: | :---: | :---: | :---: |
| Geophysics | 3 | Hydrogeology | 3 |
| Geomorphology | 3 | Sed/Strat | 4 |
| Paleontology | 4 | Geology Senior Seminar | 2 |
| General education class | 3 | General education class | 3 |
| General education class | 3 | General education class | 3 |
|  | 16 |  | 15 |

Bold = lab class
$\rightarrow=$ prerequisite for this course
$\rightarrow$ = not required, but helpful preparation for this course

[^2]
## Geology Course Plan - Option C

| Fall 2010 |  |
| :--- | :---: |
| Physical Geology | 4 |
| MAT105 College Algebra | 3 |
| Composition 023 | 3 |
| General education class | 3 |
| General education class | 3 |
|  | 16 |


| Spring 2011 |  |
| :--- | :---: |
| Historical Geology | 4 |
| MAT106 Trigonometry | 3 |
| Speech | 3 |
| Bio104 | 4 |
|  |  |
|  | 14 |


| Fall 2011 |  | Spring 2012 |  |
| :---: | :---: | :---: | :---: |
| Chemistry 100 | 4 | Chemistry 102 | 4 |
| Geomorphology | 3 | Sed/Strat | 4 |
| Calculus MAT171 | 3 | Geology Elective | 3 |
| General education class | 3 | General education class (easy one) | 3 |
| Health | 2 |  |  |
| P.E. | 1 |  |  |
|  | 16 |  | 14 |


| Fall $2012^{3}$ |  | Spring 2013 |  |
| :---: | :---: | :---: | :---: |
| Mineralogy | 4 | Petrology/Geochemistry | 4 |
| Physics 040 | 4 | Physics 042 | 4 |
| Field Methods | 3 | General education class | 3 |
| Intro to GIS (category IIIC) | 3 | Advanced GIS (category IIID) | 3 |
| General education class (easy!!) | 3 |  |  |
|  | 17 |  | 14 |


| Fall 2013 |  |
| :--- | :---: |
| Geophysics | 3 |
| Paleontology | 4 |
| General education class | 3 |
| General education class | 3 |
| General education class | 3 |
|  | 16 |


| Spring 2014 |  |
| :--- | :---: |
| Hydrogeology | $\mathbf{3}$ |
| Structural Geology | 4 |
| Geology Senior Seminar | 2 |
| General education class | 3 |
| General education class | 3 |
|  | 15 |

Bold = lab class
$\rightarrow=$ prerequisite for this course
$\rightarrow$ = not required, but helpful preparation for this course

[^3]
# Geology Course Plan - Option D 

| Fall 2010 |  |
| :--- | :---: |
| Physical Geology | 4 |
| MAT105 College Algebra | 3 |
| Composition 023 | 3 |
| General education class | 3 |
| General education class | 3 |
|  | 16 |


| Spring 2011 |  |
| :--- | :---: |
| Historical Geology | 4 |
| MAT106 Trigonometry | 3 |
| General education class (easy one) | 3 |
| Bio104 | 4 |
|  |  |
|  | 14 |


| Fall 2011 |  |
| :--- | :---: |
| Chemistry 100 | 4 |
| Field Methods | 3 |
| Paleontology | 4 |
| Calculus MAT171 | 3 |
|  |  |
|  | 14 |


| Spring 2012 |  |
| :--- | :---: |
| Chemistry 102 | 4 |
| Structural Geology | 4 |
| General education class | 3 |
| General education class | 3 |
| Health | 2 |
|  | 16 |


| Fall 2012 |  | Spring 2013 |  |
| :---: | :---: | :---: | :---: |
| Physics 040 | 4 | Physics 042 | 4 |
| Geomorphology | 3 | Sed/Strat | 4 |
| General education class | 3 | Geology Elective | 3 |
| General education class | 3 | General education class | 3 |
| Speech | 3 | PE | 1 |
|  | 16 |  | 15 |


| Fall 2013 |  | Spring 2014 |  |
| :---: | :---: | :---: | :---: |
| Geophysics | 5 | Hydrogeology | 3 |
| Mineralogy ${ }^{4}$ | 4 | Petrology/Geochemistry | 4 |
| Intro to GIS (category IIIC) | 3 | Advanced GIS (category IIID) | 3 |
| General education class | 3 | General education class | 3 |
| General education class | 3 | Geology Senior Seminar | 2 |
|  | 16 |  | 15 |

Bold = lab class
$\rightarrow=$ prerequisite for this course
$\rightarrow=$ not required, but helpful preparation for this course

[^4]
## Prerequisites

| To take this course | You must have this pre-requisite |
| :--- | :--- |
| GEL102 - Historical Geology | GEL100 - Physical Geology |
| GEL200 - Field Geology | GEL102 - Historical Geology |
| GEL210 - Environmental Geology | GEL100 - Physical Geology |
| GEL220 - Mineralogy | GEL100 - Physical Geology |
| GEL302 - Economic Geology | GEL100 - Physical Geology |
| GEL304 - Structural Geology | GEL102 - Historical Geology |
| GEL316 - Petrology and Geochemistry | GEL220 - Mineralogy and CHM100 |
| GEL320 - Paleontology | GEL102 - Historical Geology |
| GEL324 - Geomorphology | GEL100 - Physical Geology |
| GEL346 - Sedimentology and Strat. | GEL102 - Historical Geology or GEL366 Marine Geology |
| GEL358 - Geophysics | PHY040 or PHY100 - Physics |
| GEL362 - Hydrogeology | PHY040 or PHY100 - Physics + 2 Geology classes |
| GEL366 - Marine Geology | GEL100 - Physical Geology |


[^0]:    
     or IV.A).

    * Excludes PAG 011 and PAG 012

[^1]:    ${ }^{1}$ Mineralogy involves application of chemistry to geology, so having it under your belt early might help.
    Friehauf - general geology plans

[^2]:    ${ }^{2}$ Taking Mineralogy and Chemistry 100 can be beneficial because the courses complement each other
    Friehauf - general geology plans

[^3]:    ${ }^{3}$ This is a tough semester - make sure that's a really easy general education class!
    Friehauf - general geology plans

[^4]:    ${ }^{4}$ Mineralogy involves application of chemistry to geology, so having it under your belt early might help.
    Friehauf - general geology plans

