

Requirements for Geology Concentration 2014-2015

SECOND LANGUAGE

Second Language Requirement (8 units) (Requirement can be met with proficiency exam):

COURSE	TITLE	UNITS
Semester One		3
Semester Two	(Grade in second semester must be a C or higher)	3

TIER ONE

Traditions and Culture (xxxx160) (6 units):

COURSE	TITLE	UNITS
		3
		3

Individuals and Societies (xxxx150) (6 units):

COURSE	TITLE	UNITS
		3
		3

TIER TWO

Arts (3 units):

COURSE	TITLE	UNITS
		3

Individuals and Societies (3 units):

COURSE	TITLE	UNITS
		3

Humanities (3 units):

COURSE	TITLE	UNITS
		3

Diversity Emphasis (3 units) (gender, race, class, ethnicity, sexual orientation, or non-Western studies):

COURSE	TITLE	UNITS
	(Can be fulfilled with qualified Tier One or Tier Two)	3

English (6 units):

COURSE	TITLE	UNITS
ENGL 101	First-Year Composition	3
ENGL 102	First-Year Composition (grade of B or higher to meet MCWA)	3

Math (9 units):

COURSE	TITLE	UNITS
MATH 122A& 122B or 125	Calculus I with Applications (P: MATH 120R, or MATH 112 plus MATH 111, or appropriate Math Placement level, Calculus 75+) Calculus I (Appropriate Math Placement level, Calculus 90+)	5 3
MATH 129	Calculus II (P: MATH 122B or MATH 125 with grade of C or higher)	3

One of the following:

MATH 163	Basic Statistics (P: Appropriate Math Placement level, Calculus 65+ or MATH 112)	3
MATH 215	Introduction to Linear Algebra (P: MATH 129 or MATH 250A)	3
MATH 223	Vector Calculus (P: MATH 129 with C or higher)	4
MATH 263	Intro to Statistics and Biostatistics (P: MATH 112 or appropriate Math Placement level, Calculus 65+)	3

Chemistry (8 units):

COURSE	TITLE	UNITS
CHEM 151	General Chemistry I (P: MATH 112 or Math Placement level, Calc 65+)	4
CHEM 152	General Chemistry II (P: CHEM 151)	4

Physics (7 or 8 units):

COURSE	TITLE	UNITS
PHYS 141	Introductory Mechanics (P: MATH 122B; CR: MATH 129)	4
PHYS 142	Introductory Optics and Thermodynamics (P: PHYS 141, MATH 129)	3

or

PHYS 102	Introductory Physics I (P: Math Placement level, Calculus 45+, or MATH 112)	3
PHYS 181	Introductory Laboratory I (CR: PHYS 102)	1
PHYS 103	Introductory Physics II (P: PHYS 102)	3
PHYS 182	Introductory Laboratory II (P: PHYS 181; CR: PHYS 103)	1

Computer Science (3 units) (Computer science course in programming, GIS, or remote sensing)

COURSE	TITLE	UNITS
		3

GEOSCIENCES (52 units, including Emphasis courses):

COURSE	TITLE	UNITS
GEOS 251	Physical Geology (Fall and Spring)	4
GEOS 302	Principles Stratigraphy and Sedimentation (P: GEOS 251) (Fall/Spring) (Writing Proficiency course)	4
GEOS 304	Structural Geology (P: GEOS 251) (Fall and Spring)	4
GEOS 306	Mineralogy (P: GEOS 251, CHEM 151) (Fall only)	3
GEOS 308	Paleontology (P: GEOS 251) (Fall only)	3
GEOS 322	Intro to Geophysics (P: GEOS 251; CR: MATH 122B) (Spring only)	3
GEOS 356	Petrology (P: GEOS 306, MATH 122B) (Spring only)	4
GEOS 414	Geology Field Camp (P: GEOS 251, 302, 304, 306, 356) (Summer Session)	6

Advisor Approved Emphasis Courses (21 units):

	Generally courses from Geos 300 or 400 level	
	Can choose courses from related science	
	Research and Preceptor can total 12 units combined, with a max of 6 units Preceptor (GEOS 397A)	

Free Electives (13 units)

OTHER GEOSCIENCES OPPORTUNITIES

Research experience (GEOS 399, 399, 492, etc.) - Do research with a professor and earn credit!

SESS club - Society of Earth Science Students – geology club - <http://www.geo.arizona.edu/SESS/>

Preceptorship program (GEOS 397A) – Undergraduate teaching assistant. Be a preceptor for a GEOS lab class you've completed in a previous semester.

2014-2015 Finish in Four! ACADEMIC PLAN
Geosciences: Geology Concentration

THIS SAMPLE PROGRAM SHOULD NOT BE FOLLOWED WITHOUT CONSULTATION
 WITH THE DEPARTMENT ADVISOR.

Freshman Year

MATH 122A/B or 125	3 (5)	MATH 129	3
ENGL 101	3	ENGL 102	3
Tier 1 Traditions	3	Tier 1 Traditions	3
GEOS 251	<u>4</u>	GEOS 255	4
	13 (15)	Tier I Individuals	<u>3</u>
			16

Sophomore Year

PHYS 102	3	PHYS 103	3
PHYS 181	1	PHYS 182	1
CHEM 151	4	CHEM 152	4
GEOS 302	4	GEOS 304	3
Additional Math	<u>3</u>	Tier 1 Individuals	<u>3</u>
	15		14

Junior Year

GEOS 306	3	GEOS 356	4
Tier 2 Arts	3	GEOS 322	3
GEOS 308	3	Tier 2 Humanities	3
GEOS Advisor-Approved	<u>6</u>	Computer Science Course	3
	15	Free Electives	<u>3</u>
			16

Summer Session

GEOS 414	<u>6</u>
	6

Senior Year

GEOS Advisor-Approved	6	GEOS Advisor-Approved	9
Tier 2 Individuals	3	Free Electives	<u>6</u>
Free Electives	<u>4</u>		15
	13		

TOTAL UNITS: 120

NOTES:

1. One course in a student's degree program must focus on non-western cultures or gender/race/ethnicity.
2. No minor is required for this program.
3. Students who do not demonstrate second-semester proficiency in a second language upon entrance into the U of A will be required to complete up to two courses (8-10 units) in a second language. This coursework would be best completed in the freshman year.