

## Requirements for Geophysics Sub-plan: 2020-21 Catalog Year

### SECOND LANGUAGE REQUIREMENT

(Requirement can be met with proficiency exam):

Semester 1		4
Semester 2	(completion with a grade of C or higher)	4

### TIER ONE

**Individuals and Societies (xxxx150) (6 units):**

		3
		3

**Traditions and Culture (xxxx160) (6 units):**

		3
		3

### TIER TWO

**Arts (3 units):**

		3
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**Individuals and Societies (3 units):**

		3
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**Humanities (3 units):**

		3
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**Diversity Emphasis (3 units) (class, ethnicity, gender, non-west, religion):**

(Can be fulfilled with qualified Tier One or Tier Two)		
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**ENGLISH (6 units):**

ENGL 101	English Composition	3
ENGL 102	English Composition (grade of B or higher to meet MCWA)	3

or

ENGL 109H	English Composition (grade of B or higher to meet MCWA)	3
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or

ENGL 106	English Composition for ESL Students	3
ENGL 107	English Composition for ESL Students	3
ENGL 108	English Composition for ESL Students (grade of B or higher to meet MCWA)	3

**MATHEMATICS (19 units; fulfills Math Minor reqs):**

MATH 122A&B or MATH 125	Calculus I (P: MATH 120R, or MATH 112 plus MATH 111, with a grade of C or higher, or appropriate math placement)	3-5
MATH 129	Calculus II (P: MATH 122B or MATH 125 with grade of C or higher)	3
MATH 223	Vector Calculus (P: MATH 129)	4
MATH 254	Differential Equations (P: MATH 129 or 223)	3
MATH 313	Introduction to Linear Algebra (MATH 129, MATH 223, MATH 243, MATH 254, or CSC 245)	3
MATH 322	Mathematical Analysis for Engineers (P: MATH 254)	3

**CHEMISTRY (4 units):**

CHEM 151	General Chemistry I (P: MATH 112 or Math Placement level, Calc 65+)	4
<i>or</i>		
CHEM 141	Introductory Chemistry I (P: Math Placement level, Calculus 45+, or MATH 112)	3
CHEM 143	Introductory Laboratory I (CR: CHEM 141)	1

**PHYSICS (7 units):**

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

**COMPUTER APPLICATIONS (3 units):**

Choose one class from: CSC 110, ECE 175, GEOS 280, ISTA 130	3-4
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**GEOPHYSICS CORE (Complete all 8 courses):**

GEOS 251	Physical Geology (Fall and Spring)	4
GEOS 300	Earth Surface Processes (P: GEOS 251) (Spring)	3
GEOS 302	Principles Stratigraphy and Sedimentation (P: GEOS 251, CHEM 151, PHYS 102 or 141) (Fall) (Writing Proficiency course; MCWA alternative)	4
GEOS 304	Structural Geology (P: GEOS 251, PHYS 102 or 141) (Fall, sometimes Spring)	4
GEOS 306	Mineralogy (P: GEOS 251, CHEM 151) (Fall)	3
GEOS 322	Intro to Geophysics (P: GEOS 251; P: MATH 122B or 125) (Spring)	3
GEOS 356	Petrology (P: GEOS 306, MATH 122B, PHYS 102 or 141) (Spring)	4
GEOS 419	Physics of the Earth (P: MATH 254) (Spring – even years [Spring 2022])	3
GEOS 432	Intro to Seismology (P: MATH 254) (Fall)	3
GEOS 434A	Intro to Exploration Seismology (P: MATH 129) (Fall)	3

**CORE CAPSTONE – FIELD EXPERIENCE (6 units):**

GEOS 414 or GEOS 405	Geology Field Camp (P: GEOS 251, 302, 304, 306, 356) or Accessible Earth (both available in Summer Session)	6
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**GEOPHYSICS ADVISOR APPROVED EMPHASIS COURSES (9 units)**

Majority of courses should consist of GEOS 300 or 400 level	
Full list of approved classes on advisement report	
No more than 3 units of Preceptor (GEOS 397A)	

\*UA BS degrees require a minimum of 120 units for graduation. This sub-plan totals a minimum of 109 units. Additional units may be required to meet the BS minimum requirement of 120 units.

### Geophysics Advisor Approved Emphasis Courses

ASTR 403, ASTR 442, ENVS 330, GEN 330, GEN 416, GEN 448, GEOG 330, GEOG 403, GEOG 417, GEOG 419, GEOG 420, GEOS 255, GEOS 330, GEOS 400, GEOS 403, GEOS 411, GEOS 416, GEOS 417, GEOS 423, GEOS 424A, GEOS 425, GEOS 427, GEOS 440, GEOS 442, GEOS 446, GEOS 448, GEOS 469, GEOS 477, GEOS 479, GEOS 482, GEOS 567, GEOS 568, GIST 330, GIST 417, GIST 420, HWRS 411, HWRS 431, MATH 363, PHYS 403, PTYS 403, PTYS 407, PTYS 411, PTYS 442, PTYS 567, RNR 403, RNR 417, RNR 419, RNR 420, WSM 330, Approved Transfer Course