

Requirements for Geophysics Subplan: 2015-2016

SECOND LANGUAGE REQUIREMENT

(Requirement can be met with proficiency exam):

Semester One		4
Semester Two	(completion with a grade of C or better)	4

TIER ONE

Traditions and Culture (xxxx160) (6 units):

		3
		3

Individuals and Societies (xxxx150) (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) (gender, race, class):

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

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

Mathematics (16 units):

MATH 122A& 122B	(P: MATH 120R, or MATH 112 plus MATH 111, with a grade of C or higher)	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 322	Mathematical Analysis for Engineers (P: MATH 254)	3

STUDENTS planning to take one additional course to complete a MATH minor should take MATH 313, Introduction to Linear Algebra.

Chemistry (8 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 (14 units)::

PHYS 141	Introductory Mechanics (P: MATH 122B; CR: MATH 129)	4
PHYS 142	Introductory Optics and Thermodynamics (P: PHYS 141, MATH 129)	3
PHYS 241	Introductory Electricity and Magnetism (P: PHYS 141, MATH 129)	4

Computer Science (3 units)

(Course in programming – see advisement report or advisor)		
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Geophysics Core (Complete all 9 courses):

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

Field Course (6 units):

GEOS 414	Geology Field Camp (P: GEOS 251, 302, 304, 306, 356) (Summer Session)	6
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Advisor Approved Emphasis Courses (15 units)

Majority of courses should consist of GEOS 300 or 400 level		
Full list of approved classes on advisement report		
Up to 9 units of Research and Preceptor allowed with max 6 units Preceptor (GEOS 397A)		

*This plan equals 117 units. An additional 3 units of elective credit are required for graduation.

Advisor Approved Emphasis Courses – Geophysics

ASTR 403, ASTR 442, GEOG 419, GEOG 420, GEOS 400, GEOS 403, GEOS 417, GEOS 423, GEOS 424A, GEOS 425, GEOS 427, GEOS 442, GEOS 446, GEOS 469, GEOS 477, GEOS 482, GEOS 567, GEOS 568, HWRS 431, PHYS 403, PTYS 403, PTYS 407, PTYS 442, PTYS 449, PTYS 567, RNR 419, RNR 420

Geophysics subplan: MATH 125 placement							
<u>Year 1</u>		<u>Year 2</u>		<u>Year 3</u>		<u>Year 4</u>	
Fall		Fall		Fall		Fall	
GEOS 251	4	GEOS 306	3	GEOS 302	4	GEOS 434A	3
MATH 125	3	PHYS 141	4	MATH 322	3	GEOS 432	3
CHEM 151	4	MATH 223	4	PHYS 241	4	GEOPHYS emphasis	5
ENGL 101/107	3	Tier I gen. ed.	3	Tier I gen. ed.	3	Tier II Humanities	3
	<u>14</u>		<u>14</u>		<u>14</u>		<u>14</u>
Spring		Spring		Spring		Spring	
GEOS 255*	4	GEOS 356	4	GEOS 304	4	GEOS 419	3
MATH 129	3	GEOS 322	3	CompSci course	3	GEOPHYS emphasis	6
ENGL 102/108	3	PHYS 142	3	Tier II Individuals	3	Tier II Arts	3
CHEM 152	4	MATH 254	3	Free electives	3		
Tier I gen. ed.	3	Tier I gen. ed.	3				
	<u>17</u>		<u>16</u>		<u>13</u>		<u>12</u>
				Summer			
				GEOS 414	6		
TOTAL UNITS	31	30		33		26	120

* GEOS 255 counts as emphasis course.

Geophysics subplan: MATH 122 placement							
<u>Year 1</u>		<u>Year 2</u>		<u>Year 3</u>		<u>Year 4</u>	
Fall		Fall		Fall		Fall	
GEOS 251	4	GEOS 306	3	GEOS 302	4	GEOS 434A	3
MATH 122A	1	PHYS 141	4	MATH 322	3	GEOS 432	3
MATH 122B	4	MATH 223	4	PHYS 241	4	GEOS emphasis	5
ENGL 101/107	3	Tier I gen. ed.	3	Tier I gen. ed.	3	Free elective	1
CHEM 151	4						
	<u>16</u>		<u>14</u>		<u>14</u>		<u>12</u>
Spring		Spring		Spring		Spring	
GEOS 255*	4	GEOS 356	4	GEOS 304	4	GEOS 419	3
MATH 129	3	GEOS 322	3	CompSci course	3	GEOS emphasis	6
ENGL 102/108	3	PHYS 142	3	Tier II Humanities	3	Tier II Arts	3
CHEM 152	4	MATH 254	3	Tier II Individuals	3		
Tier I gen. ed.	3	Tier I gen. ed.	3				
	<u>17</u>		<u>16</u>		<u>13</u>		<u>12</u>
				Summer			
				GEOS 414	6		
TOTAL UNITS	33	30		33		24	120

Geophysics subplan: MATH 111/112 or 120 placement							
<u>Year 1</u>		<u>Year 2</u>		<u>Year 3</u>		<u>Year 4</u>	
Fall		Fall		Fall		Fall	
GEOS 251	4	GEOS 306	3	GEOS 302	4	GEOS 434A	3
MATH 111	2	PHYS 141	4	MATH 254	3	GEOS emphasis	5
MATH 112	3	MATH 129	3	PHYS 241	4	CompSci course	3
ENGL 101/107	3	Tier I gen. ed.	3	Tier I gen. ed.	3	Tier II Arts	3
Tier I gen. ed.	3						
	<u>15</u>		<u>13</u>		<u>14</u>		<u>14</u>
Spring		Spring		Spring		Spring	
GEOS 255*	4	GEOS 356	4	GEOS 304	4	GEOS 419	3
MATH 122A	1	GEOS 322	3	MATH 322	3	GEOS 432	3
MATH 122B	4	PHYS 142	3	Tier II Individuals	3	GEOS emphasis	6
ENGL 102/108	3	MATH 223	4	Tier I gen. ed.	3	Tier II Humanities	3
CHEM 151	4						
	<u>16</u>		<u>14</u>		<u>13</u>		<u>15</u>
Summer				Summer			
CHEM 152	4			GEOS 414	6		
TOTAL UNITS	35	27		33		29	124

Geophysics subplan: MATH 100 placement

<u>Year 1</u>		<u>Year 2</u>		<u>Year 3</u>		<u>Year 4</u>	
Fall		Fall		Fall		Fall	
GEOS 251	4	GEOS 306	3	GEOS 302	4	GEOS 434A	3
MATH 100	3	CHEM 152	4	MATH 254	3	GEOS 432	3
ENGL 101/107	3	MATH 122A	1	PHYS 142	3	GEOS emphasis	5
Tier I gen. ed.	3	MATH 122B	4	Tier II Individuals	3	CompSci course	3
Tier I gen. ed.	3	Tier I gen. ed.	3				
	<u>16</u>		<u>15</u>		<u>13</u>		<u>14</u>
Spring		Spring		Spring		Spring	
GEOS 255*	4	GEOS 322	3	GEOS 356	4	GEOS 419	3
MATH 111	2	PHYS 141	4	GEOS 304	4	GEOS emphasis	6
MATH 112	3	MATH 129	3	MATH 322	3	Tier II Arts	3
ENGL 102/108	3	Tier II Humanities	3	PHYS 241	4		
Tier I gen. ed.	3						
	<u>15</u>		<u>13</u>		<u>15</u>		<u>12</u>
Summer		Summer		Summer			
CHEM 151	4	MATH 223	4	GEOS 414	6		
TOTAL UNITS	35	TOTAL UNITS	32	TOTAL UNITS	34	TOTAL UNITS	26
							127

* GEOS 255 counts as emphasis course.

Geophysics subplan: MATH 100AX placement

<u>Year 1</u>		<u>Year 2</u>		<u>Year 3</u>		<u>Year 4</u>	
Fall		Fall		Fall		Fall	
GEOS 251	4	MATH 122A	1	GEOS 306	3	GEOS 434A	3
MATH 100 AX	(2)	MATH 122B	4	GEOS 302	4	GEOS 432	3
ENGL 101/107	3	CHEM 151	4	MATH 254	3	GEOS emphasis	5
Tier I gen. ed.	3	Tier II Humanities	3	PHYS 142	3	PHYS 241	4
Tier I gen. ed.	3	Tier II Individuals	3				
	<u>13</u>		<u>15</u>		<u>13</u>		<u>15</u>
Spring		Spring		Spring		Spring	
GEOS 255*	4	MATH 129	3	GEOS 356	4	GEOS 419	3
MATH 100	3	CHEM 152	4	GEOS 304	4	MATH 322	3
ENGL 102/108	3	PHYS 141	4	CompSci course	3	GEOS emphasis	6
Tier I gen. ed.	3	Tier II Arts	3	GEOS 322	3		
Tier I gen. ed.	3						
	<u>16</u>		<u>14</u>		<u>14</u>		<u>12</u>
Summer		Summer		Summer			
MATH 111	2	MATH 223	4	GEOS 414	6		
MATH 112	3						
TOTAL UNITS	34	TOTAL UNITS	33	TOTAL UNITS	33	TOTAL UNITS	27
							127