

**Department of Earth Sciences, School of Science**  
**BS MS Geology – 4+1 Program**
**BS DEGREE REQUIREMENTS***First Year Experience*

SCI-I 120 Windows on Science. 1 cr. \_\_\_\_\_

*English Composition and Communication Competency*

ENG-W 131 English Composition I 3 cr. \_\_\_\_\_

2nd Composition Course 3 cr. \_\_\_\_\_

COMM-R 110 Speech Communication 3 cr. \_\_\_\_\_

*Arts & Humanities, Social Sciences Competency*

\_\_\_\_\_ 3 cr. \_\_\_\_\_

\_\_\_\_\_ 3 cr. \_\_\_\_\_

\_\_\_\_\_ 3 cr. \_\_\_\_\_

*Cultural Understanding Competency*

\_\_\_\_\_ 3 cr. \_\_\_\_\_

*Life and Physical Sciences Competency*

CHEM-C 105/C 125 Principles of Chemistry I &amp; Lab 5 cr. \_\_\_\_\_

CHEM-C 106/C 126 Principles of Chemistry II &amp; Lab 5 cr. \_\_\_\_\_

PHYS-P 201 General Physics I 5 cr. \_\_\_\_\_

PHYS-P 202 General Physics II 5 cr. \_\_\_\_\_

Two (2) Biology courses with lab \_\_\_\_\_

\_\_\_\_\_ 4-5 cr. \_\_\_\_\_

\_\_\_\_\_ 4-5 cr. \_\_\_\_\_

*Additional Science Course Requirement*Two (2) additional 300 level or higher Science course  
or certain GEOG courses (see advisor)

\_\_\_\_\_ 3 cr. \_\_\_\_\_

\_\_\_\_\_ 3 cr. \_\_\_\_\_

*Analytical Reasoning Competency*

MATH 16500 Analytic Geometry &amp; Calculus I 4 cr. \_\_\_\_\_

MATH 16600 Analytic Geometry &amp; Calculus II 4 cr. \_\_\_\_\_

STAT 30100 or other approved statistics course 3 cr. \_\_\_\_\_

*Computer Science Competency*

CSCI-N 207 or other approved computer course 3 cr. \_\_\_\_\_

**BS GEOLOGY MAJOR COURSES***No grade below C- will be accepted in any of these courses.*

GEOLOG-G 110 Physical Geology 3 cr. \_\_\_\_\_

GEOLOG-G 120 Physical Geology Laboratory 1 cr. \_\_\_\_\_

GEOLOG-G 205 Reporting Skills in the Geosciences 3 cr. \_\_\_\_\_

GEOLOG-G 221 Mineralogy 4 cr. \_\_\_\_\_

GEOLOG-G 222 Petrology 4 cr. \_\_\_\_\_

GEOLOG-G 323 Structural Geology 4 cr. \_\_\_\_\_

GEOLOG-G 334 Sedimentology &amp; Stratigraphy 4 cr. \_\_\_\_\_

GEOLOG-G 335 Evolution of Earth and Life 4 cr. \_\_\_\_\_

GEOLOG-G420 Field Camp 3 cr. \_\_\_\_\_

GEOLOG-G4XX \_\_\_\_\_ 3 cr. \_\_\_\_\_

GEOLOG-G4XX/5XX\* \_\_\_\_\_ 3 cr. \_\_\_\_\_

GEOLOG-G700 Geologic Problems (THESIS), or 3 cr. \_\_\_\_\_

GEOLOG-G690 Advanced Geology Seminar (NON-THESIS)

*Note: Students must apply to the BSMS program in Earth Sciences  
in the Fall of their junior year. See advisor for application.***GENERAL ELECTIVES (9-11 credits)**

\_\_\_\_\_ 3 cr. \_\_\_\_\_

\_\_\_\_\_ 3 cr. \_\_\_\_\_

\_\_\_\_\_ 3 cr. \_\_\_\_\_

\_\_\_\_\_ 3 cr. \_\_\_\_\_

**MASTERS DEGREE COURSES***Note: Students must apply for admission into the IUPUI graduate program  
during the fall of their Senior year.***THESIS MS:**Three (3) credits of 500-level or higher Allied Sciences, Math, or  
SPEA-E course \_\_\_\_\_ 3 cr. \_\_\_\_\_

Nine (9) credits of Geology 500-level or higher

\_\_\_\_\_ 3 cr. \_\_\_\_\_

\_\_\_\_\_ 3 cr. \_\_\_\_\_

\_\_\_\_\_ 3 cr. \_\_\_\_\_

Six (6) credits of GEOL-G810 Thesis Research

\_\_\_\_\_ 3 cr. \_\_\_\_\_

\_\_\_\_\_ 3 cr. \_\_\_\_\_

**NON-THESIS MS:**Three (3) credits of 500-level or higher Allied Sciences, Math, or  
SPEA-E course \_\_\_\_\_ 3 cr. \_\_\_\_\_

Twenty-one (21) credits of Geology 500-level or higher

\_\_\_\_\_ 3 cr. \_\_\_\_\_

\_\_\_\_\_ 3 cr. \_\_\_\_\_

\_\_\_\_\_ 3 cr. \_\_\_\_\_

\_\_\_\_\_ 3 cr. \_\_\_\_\_

\_\_\_\_\_ 3 cr. \_\_\_\_\_

\_\_\_\_\_ 3 cr. \_\_\_\_\_

\_\_\_\_\_ 3 cr. \_\_\_\_\_

GEOLOG-G700 Geologic Problems 3 cr. \_\_\_\_\_

*\*Students in the Thesis MS should take a 500-level or higher GEOL course;  
students in the non-thesis MS should take a 400-level course.*

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**Example Plan-of-Study for BS MS Geology THESIS**

Freshman -Fall		Freshman - Spring	
Course	Credits	Course	Credits
GEOL-G 110 Physical Geology	3	CHEM-C 105 Principles of Chemistry I	3
GEOL-G 120 Physical Geology Laboratory	1	CHEM-C 125 Experimental Chemistry I	2
MATH 16500 Analytic Geometry & Calculus I	4	MATH 16600 Analytic Geometry & Calculus II	4
CSCI-N 207 or other approved computer course	3	Second Composition Course	3
ENG-W 131 English Composition I	3	COMM-R 110 Speech Communication	3
SCI-I 120 Windows on Science	1		
<b>TOTAL CREDITS</b>	<b>15</b>		<b>15</b>
Sophomore - Fall		Sophomore - Spring	
Course	Credits	Course	Credits
GEOL-G 335 Evolution of Earth and Life	4	PHYS-P 201 General Physics I	5
GEOL-G 221 Mineralogy	4	GEOL-G 222 Petrology	4
CHEM-C106 Principles of Chemistry II	3	Biology Course with Lab	5
CHEM-C126 Experimental Chemistry II	2	Arts / Humanities / Social Sciences Course	3
GEOL-G 205 Reporting Skills in the Geosciences	3		
<b>TOTAL CREDITS</b>	<b>16</b>		<b>17</b>
Junior - Fall		Junior - Spring	
Course	Credits	Course	Credits
GEOL-G 323 Structural Geology	4	300-400 level Science or Geography Course	3
GEOL-G 334 Sedimentology and Stratigraphy	4	Biology Course with Lab	3
PHYS-P 202 General Physics II	5	STAT 30100 Elementary Statistical Methods	5
		Elective	3
<b>TOTAL CREDITS</b>	<b>13</b>		<b>14</b>
Senior - Fall		Senior -Spring	
Course	Credits	Course	Credits
GEOL-G 400 elective*	3	GEOL-G 500 elective*	3
300-400 level Science or Geography Course	3	Cultural Understanding Course	3
Arts / Humanities / Social Sciences Course	3	Arts / Humanities / Social Sciences Course	3
Elective	3	Elective	3
<b>TOTAL CREDITS</b>	<b>12</b>		<b>12</b>
Summer between Senior and Graduate			
Summer I		Summer II	
GEOL-G 420 Field Camp*	3	GEOL-G700 Geologic Problems*	3
<b>TOTAL CREDITS</b>	<b>3</b>		<b>3</b>
Graduate - Fall		Graduate - Spring	
Course	Credits	Course	Credits
GEOL-G 500+ elective	3	GEOL-G 500+ elective	3
Allied Science, Math, or SPEA-E 500+	3	GEOL-G810	6
GEOL-G 500+ elective	3		
<b>TOTAL CREDITS</b>	<b>9</b>		<b>9</b>

\* Indicates overlapping credits between the BS and MS degree

**Example Plan-of-Study for BS MS Geology NON-THESIS**

Freshman -Fall		Freshman - Spring	
Course	Credits	Course	Credits
GEOL-G 110 Physical Geology	3	CHEM-C 105 Principles of Chemistry I	3
GEOL-G 120 Physical Geology Laboratory	1	CHEM-C 125 Experimental Chemistry I	2
MATH 16500 Analytic Geometry & Calculus I	4	MATH 16600 Analytic Geometry & Calculus II	4
CSCI-N 207 or other approved computer course	3	Second Composition Course	3
ENG-W 131 English Composition I	3	COMM-R 110 Speech Communication	3
SCI-I 120 Windows on Science	1		
<b>TOTAL CREDITS</b>	<b>15</b>		<b>15</b>
Sophomore - Fall		Sophomore - Spring	
Course	Credits	Course	Credits
GEOL-G 335 Evolution of Earth and Life	4	PHYS-P 201 General Physics I	5
GEOL-G 221 Mineralogy	4	GEOL-G 222 Petrology	4
CHEM-C106 Principles of Chemistry II	3	Biology Course with Lab	5
CHEM-C126 Experimental Chemistry II	2	Cultural Understanding Course	3
GEOL-G 205 Reporting Skills in the Geosciences	3		
<b>TOTAL CREDITS</b>	<b>16</b>		<b>17</b>
Junior - Fall		Junior - Spring	
Course	Credits	Course	Credits
GEOL-G 323 Structural Geology	4	300-400 level Science or Geography Course	3
GEOL-G 334 Sedimentology and Stratigraphy	4	Biology Course with Lab	3
PHYS-P 202 General Physics II	5	STAT 30100 Elementary Statistical Methods	5
Arts / Humanities / Social Sciences Course	3	Elective	3
<b>TOTAL CREDITS</b>	<b>16</b>		<b>14</b>
Senior - Fall		Senior -Spring	
Course	Credits	Course	Credits
GEOL-G 400 elective*	3	GEOL-G 500+ elective*	3
300-400 level Science or Geography Course	3	GEOL-G 400 elective*	3
Arts / Humanities / Social Sciences Course	3	Arts / Humanities / Social Sciences Course	3
Elective	3	Elective	3
<b>TOTAL CREDITS</b>	<b>12</b>		<b>12</b>
Summer between Senior and Graduate			
Summer I		Summer II	
GEOL-G 420 Field Camp	3	GEOL-G690 Advanced Geology Seminar	3
<b>TOTAL CREDITS</b>	<b>3</b>		<b>3</b>
Graduate - Fall		Graduate - Spring	
Course	Credits	Course	Credits
GEOL-G 500+ elective	3	GEOL-G 500+ elective	3
Allied Science, Math, or SPEA-E 500+	3	GEOL-G 500+ elective	3
GEOL-G 500+ elective	3	GEOL-G 500+ elective	3
GEOL-G 500+ elective	3	GEOL-G700 Geologic Problems	3
<b>TOTAL CREDITS</b>	<b>12</b>		<b>12</b>
* Indicates overlapping credits between the BS and MS degree			