

Name _____
 MSU ID# _____

Advisor _____

**GEOLOGY OPTION
 CURRICULUM CHECKING SHEET
 (2008-2010 Catalog)**

Courses REQUIRED by the Department

Rubric	#	Core Course Title	CREDITS	SEMESTER TAKEN	GRADE
FRESHMAN YEAR					
CHEM	131	General Chemistry I	4		
CHEM	132	General Chemistry II	4		
ESCI	111	IN Physical Geology	4		
ESCI	112	CS Physical Geography#	4		
GEOL	210	Historical Geology	3	Spr	
MATH	181	Q Calculus/Anal. Geom. I	4		
MATH	182	Q Calculus/Anal. Geom. II	4		
University core or elective			3		
<i>TOTAL</i>			30		

SOPHOMORE YEAR

BIOL	101	IN Biology of Organisms	4		
ESCI	307	Principles of Geomorphology	4	Fall	
GEOG	211	GIS and Cartography	3		
GEOG	305	GIS and Spatial Analysis#	3		
GEOL	204	R Mineralogy	4	Spr	
PHYS	205	College Physics I	4		
PHYS	206	College Physics II	4		
University core or elective			4		
<i>TOTAL</i>			30		

NOTE: Either ESCI 112 **OR** GEOG 305 may be taken; if ESCI 112 is taken, GEOG 305 may be taken as an elective.

JUNIOR YEAR

GEOL	306	Igneous Petrology	3	Fall	
GEOL	307	Sedimentary Petrology	3	Fall	
GEOL	308	Metamorphic Petrology	3	Spr	
GEOL	309	Sedimentation and Stratigraphy	4	Spr	
GEOL	315	Structural Geology	3	Spr	
STAT	332	Stat-Scientist & Engr	3		
University core or electives			11		
<i>TOTAL</i>			30		

SUMMER OF JUNIOR OR SENIOR YEAR

GEOL	423	Field Geology	6	Su	
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SENIOR YEAR

GEOL	433	Tectonics	3	Fall	
University core or electives			21		
<i>TOTAL</i>			24		
GRAND TOTAL			120		

[See reverse side for elective requirements.]

GEOLOGY ELECTIVES

Take **5 courses** from the following three blocks, at least **three of which** must come from the Geology block.

Rubric	#	Core Course Title	CREDITS	SEMESTER TAKEN	GRADE
GEOLOGY BLOCK					
Take 3 to 5 courses from the following block.					
<i>ESCI</i>	455	<i>Physiography of the United States</i>	3	<i>Spr</i>	
<i>GEOL</i>	310	<i>Invertebrate Paleontology</i>	3	<i>Fall</i>	
<i>GEOL</i>	411	<i>Vertebrate Paleontology</i>	3	<i>Spr</i>	
GEOL	417	Taphonomy	3	Fall	
GEOL	440	Volcanology	3	Fall	
GEOL	445	Glacial Geology	3	Spr	
GEOL	470	Individual Problems §	3		
GEOL	480	Special Topics §	3		
ESCI	490	R Undergraduate Research	1-8		

§ NOTE: Can be repeated, but can only be counted once (each) as a Geology elective.

HYDROLOGY BLOCK

One course from the following can be counted as an elective.

<i>ESCI</i>	432	R <i>Surface Water Resource</i>	3	<i>Fall</i>	
ESCI	440	Groundwater Resource	3	Fall	
ESCI	450	R Snow Dynamics and Accumulation	3	<i>Spr</i>	

REMOTE SENSING BLOCK

One course from the following can be counted as an elective.

ESCI	310	Aerial Photo Interpretation	4	Fall	
GEOG	305	GIS & Spatial Analysis ‡	3		
GEOG	411	R Applied GIS & Spatial Analysis	3		
LRES	426	Remote Sensing & Digital Image Processing	3		

‡ NOTE: Can be counted as an elective if not already used as a departmental requirement. See # above.

NOTE: A minimum of 120 credits is required for graduation; 42 of these credits must be in courses numbered 300 or above.

NOTE: Normal text shows courses offered every year, **BOLD courses are planned to be offered in the first year of the cycle (e.g., 2008-9)** and *ITALICIZED courses are planned to be offered in the second year (e.g., 2009-10)*. All offerings are dependent upon available staffing.

Completion of at least two of the following courses with a grade of C- or better satisfies both the Contemporary Issues in Science and the Natural Science Inquiry requirements: ARNR 240; BCHM 122; BIOL 101, 102, *207, *208, 213, 214, 215, 251 (Previously offered as BIOL 209, 210, 211); CHEM 121, 131, 132, 141, 142, 215; ESCI 111, 112L GEIK 102, 204, 210; LRES 201; MB 201; MBEH 210; PHYS 205, 206, 211, 212, 213, 221, 222; PSPP 101, 102. Individual substitutions for one requirement or the other are not permissible.