

Revised curriculum to start Fall 2007

## STUDENT ADVISING SHEET: BS Geology

ADVISOR: \_\_\_\_\_ DATE: \_\_\_\_\_

STUDENT NAME: \_\_\_\_\_

STUDENT INTERESTS: \_\_\_\_\_

CONTACT INFO: \_\_\_\_\_

### ***BS Geology Curriculum (total unit requirement = 69)***

<b>Basic Science and Mathematics</b>		<i>Semester</i>
MATH 226	Calculus I (4)	ALL
GEOL 125 <i>or</i> MATH 227	Quantitative Geology (4) <i>or</i> Calculus II (4)	SPRING /ALL
PHYS 111/112 <i>or</i> PHYS 220/222	General Physics I/Laboratory (3/1) <i>or</i> General Physics with Calculus I/ Laboratory (3/1)	ALL
PHYS 121/122 <i>or</i> PHYS 240/242	General Physics II/Laboratory (3/1) <i>or</i> General Physics with Calculus III/ Laboratory (3/1)	ALL
CHEM 115	General Chemistry I: Essential Concepts of Chemistry (5)	ALL
CHEM 215/216	General Chemistry II: Quantitative Applications of Chemistry Concepts/Laboratory (3/2)	ALL
<b><i>Total basic science and mathematics requirements: 26</i></b>		
<b>Basic Geology Core</b>		
GEOL 110	Physical Geology (4)	ALL
GEOL 115	Earth and Life through Time (4)	SPRING
GEOL 120	Intro to Geologic Techniques (2)	FALL
GEOL 420	Mineralogy and Petrology I (4)	SPRING
GEOL 430	Structural Geology (4)	FALL
GEOL 460	Sedimentology and Stratigraphy (4) GVAR	FALL
GEOL 695	Field Methods in Geology (2)	SPRING
<b><i>Total basic geology core requirement: 24</i></b>		
<b>Advanced Geology Core</b> ( <i>complete at least 7 unit; select at least one quantitative geology course**</i> )		
GEOL 426	Mineralogy and Petrology II (4)	FALL
GEOL 450	Geomorphology** (4)	FALL
OCN 410	Coastal Processes** (3)	SPRING
GEOL 458	Earth's Climate History (3) GVAR	SPRING
GEOL 475	Hydrogeology** (4)	FALL
GEOL 480	Geochemistry** (4)	SPRING
<b><i>Total advanced geology core requirements: 7</i></b>		
<b>Capstone</b> ( <i>complete at least 4 units</i> )		
GEOL 696	Field Geology ( <i>or the equivalent from another university</i> ) (4-6)	SUMMER
GEOL 697	Undergraduate Research (2)	ALL
GEOL 698	Senior Research and Thesis (2)	ALL
<b><i>Total capstone requirement: 4</i></b>		
<b>Electives</b> ( <i>Complete at least 8 units of courses numbered 400 or higher in geology [or related field]</i> )		

<b>Recommended Emphases</b>		
<i>(Students should select courses upon advisement from the advanced geology core and from electives to create a coherent emphasis. We recommend one of the examples below.)</i>		
<b>Sedimentary and Coastal Processes</b>		
GEOL 426	Mineralogy and Petrology II	4
GEOL 450	Geomorphology	4
GEOL 475	Hydrogeology	4
GEOL 480	Geochemistry	4
OCN 410	Coastal Processes	3
OCN 465	Physical Oceanography	3
<b>Petrology and Tectonics</b>		
GEOL 410	Volcanology	3
GEOL 426	Mineralogy and Petrology II	4
GEOL 470	Neotectonics	3
GEOL 480	Geochemistry	4
GEOL 485	Ore Deposits	3
<b>Surficial and Environmental Geology</b>		
GEOL 450	Geomorphology	4
GEOL 454	Quaternary Geology and Soils	3
GEOL 470	Neotectonics	3
GEOL 473	Surface Water Hydrology	3
GEOL 474	Engineering Geology	3
GEOL 475	Hydrogeology	4
GEOL 476	Groundwater Contamination	3
GEOL 480	Geochemistry	4
<b>Climate Change</b>		
GEOL 405	Planetary Climate Change	4
GEOL 450	Geomorphology	4
GEOL 458	Earth's Climate History	3
GEOL 454	Quaternary Geology and Soils	3
GEOL 480	Geochemistry	4
OCN 410	Coastal Processes	3
<b>Energy and Natural Resources</b>		
GEOL 426	Mineralogy and Petrology II	4
GEOL 462	Geology of Hydrocarbons	3
GEOL 458	Earth's Climate History	3
GEOL 480	Geochemistry	4
GEOL 485	Ore Deposits	4