

Assessment Plan

2007

Mission

The mission of the Department of Geology is to foster in students an understanding of the Earth: the processes that affect its surface and interior; its formation through time; and its functioning as the physical environment for the living world.

GOAL 1: Graduates will understand the fundamentals of earth materials, geologic processes, and the evolution of the planet and life upon it.

- Outcome 1. Graduates are proficient in basic field techniques used in geology.*
- Outcome 2. Graduates are proficient in analytic techniques used in geology.*
- Outcome 3. Graduates demonstrate an understanding of geologic processes by analyzing and interpreting geologic evidence.*

GOAL 2: Graduates will understand the scientific method as applied in the Earth Sciences.

- Outcome 4. Graduates appropriately use scientific evidence to support interpretations.*
- Outcome 5. Graduates can analyze journal articles on a specific topic within the Earth Sciences.*
- Outcome 6. Graduates are able to identify hypotheses and evaluate how they were tested.*

GOAL 3: Graduates will have a sufficient foundation in Geology to continue to graduate school or enter geologic professions.

- Outcome 7. Graduates can conduct an independent geologic research project.*
- Outcome 8. Graduates can give oral reports on geologic topics using appropriate technology and style.*
- Outcome 9. Graduates can convey geologic information in a written format appropriate to the Earth Sciences.*

Course Alignment

The following grid shows in which courses outcomes are introduced, developed, and mastered.

Crse #		Goal 1			Goal 2			Goal 3		
		Otcm 1	Otcm 2	Otcm 3	Otcm 4	Otcm 5	Otcm 6	Otcm 7	Otcm 8	Otcm 9
105	Intro Geology	I	I	I	I		I		I	
205	Planetary			I	I					
215	Evol Earth	I	I	I	I		I			
225	Intro field	D		D	D		I	I		I
235	Global Tect		I	D	D	I	I			I
245	Atmos/oceans		D	D	D	D	D		I	D

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255	Nat Sci GIS		D		D			D	I	
325	Stx/Adv field	M		D	M	I	D	D		D
335	Mineral		D	I					I	
342	Geomorph	D	D	D	D	D	M		D	D
345	Petrology	D	M	D	D			I		
355	Paleomag	D	D	D	D	D	D	D	D	D
365	Paleont	D	D	D	D	D	D		D	
385	Hydrogeo		D	D	D					
397	Adv Topics									
490	Senior Seminar				D	D	M	D	D	D
comps		M	M	M	M	M	M	M	M	M

Key: I = Introduced, D = developed,
M =Mastered

Implementation

The following table shows our planned timeline for assessment.

2006-07	2007-08	2008-09	2009-10	2010-11
Outcome 8	Outcome 5	Outcome 2	Outcome 1	Outcome 7
Outcome 9	Outcome 6	Outcome 4	Outcome 3	

Assessment will be done by the entire department (except those on sabbatical in the Spring semester). Each faculty member will collect appropriate materials for assessment from their classes each time the course is taught. Examples of materials that will be for Outcomes 1 and 9 are shown in the table below. We will gather as a group and review these materials at the end of spring semester. The Chair will convene the meeting and a faculty member will be responsible for recording and summarizing our assessment findings for the Department Annual Report. We anticipate that a faculty member will be responsible for the same outcome every time it is assessed. This year, Rusmore will lead the assessment of Outcome 1, and Sadd will lead the assessment of Outcome 9. We will meet before Commencement to complete this first year of assessment and write the Departmental Report.

Examples of material to be reviewed for Outcome 1:

Introductory level (105, 215)	Lab tests	Appropriate labs	Field exercises where applicable
Developmental level (225, 342, 345, 355,	Hand sample tests, quizzes and tests on	Appropriate labs, field projects, hand sample descriptions, field notes,	Field maps, cross sections, stratigraphic columns

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365)	map patterns	final reports	
Mastery level (325, certain comps projects)	Hand sample tests, quizzes and tests	Appropriate labs, field projects, hand sample descriptions, field notes, final reports and comps papers where appropriate	Field maps, cross sections, stratigraphic columns,

Examples of material to be reviewed for Outcome 9:

Introductory level (225, 235)	Papers,	abstracts	
Developmental level (245, 325, 342, 355, 490)	papers,	Abstracts	Comps proposals,
Mastery level (comps projects)	Senior Thesis		

Process/Departmental Support

The Mission, Goals and Outcomes were developed by the Department as a whole. We met weekly for much of the year to develop and refine our assessment plan. Although on Sabbatical all year, Scott Bogue contributed to the development of the plan and approved the final versions of Mission, Goals, and Outcomes. The Chair (Rusmore) took notes at meetings and summarized the discussions and results.