Geoscience | 2016-2017 Assessment Plan

1. Please review last year's assessment results (2015-2016) as well as the Academic Program Assessment Report with the faculty in your program. How does your program plan to take these results into consideration in future programmatic planning?

   The Geoscience Academic Program Assessment Report dated 18 May 2016 was reviewed by the Geoscience Faculty. A draft plan for how programmatic outcomes will be measured has been created. We also have developed a preliminary matrix between Programmatic Learning Outcomes and courses that Geoscience students are required or are likely to take (see Question 5 below). This will be used to develop a more systematic schedule for assessing each of the Learning Outcomes.

2. Please review your program's Learning Outcomes. Do any of them need to be updated or clarified?

   Not at this time. We will continue discussion about connections between the learning outcomes and the core course The Soil Environment. We may need to more clearly articulate the purpose of the course respect to the program goals and outcomes.

   a. Please provide brief indications of the kinds of assessment that might be used to assess each outcome.

Learning Outcomes	How will it be measured? (draft 12/2016)
1	embedded assessment with in supporting courses
2	project presentations and laboratory reports
3	course project and embedded assessement on final exam
4	embedded assessement on quizzes and final exam
5	term paper or exam question
6	lab exercise and exam question(s)
7	embedded assessement on final exam
8	embedded assessement on final exam
9	laboratory reports

b. Please compare your Learning Outcomes to the University's main learning objectives. Which programmatic outcomes match university mission outcomes?

These were included in the 2014 Program Review and in the 18 May 2016 APAS rubric. They are repeated below in table format.

Select Mission Objectives	Geoscience Learning Outcomes
problem-focused	2, 9
interdisciplinary	3
critical thinking	6, 9
environmental sustainability	3, 7, 8

3. Which outcome will you assess this year (2016-2017)?

Learning outcomes 2 and 4.

4. Which technique will you use to assess this outcome?

Outcome 2: Project presentation. The following criteria will be used to evaluate student learning:

1) Describing the question being asked and the hypothesis, 2) Description of Data, and the Techniques and Methods utilized to collect, and 3) Conceptual model.

Outcome 4: embedded questions on quiz and final exam.

5. Which course or group of students will you assess on the outcome chosen above and when?

Outcome 2: This is repeat assessment in the GEOSCI 340 - Introduction to Mineralogy and Petrology.

Outcome 4: GEOSCI 203 - Earth System History

See the attached table that links Geoscience Learning Outcomes and program courses.

Geoscience student learning outcomes in relationship to Geoscience major courses (draft December 2016).

Geoscience Student Learning Outcomes									Geoscience Major	
1	2	3	4	5	6	7	8	9	Supporting & Core Courses	
			x		x		x		GEOSCI 202	Physical Geology
x			x						GEOSCI 203	Earth System History
	x					x			ENV SCI 320	The Soil Environment
						x			ENV SCI 330	Hydrology
	x								GEOSCI 340	Introduction to Mineralogy & Petrology
						x		x	GEOSCI 432	Hydrogeology
UPPER-LEVEL ELECTIVES (12 credits):										
									ENV SCI 421	Geoscience Field Trip

									ENV SCI 425	Global Climate Change
								x	GEOSCI 301	Introduction to Geoscience Field Methods
									GEOSCI 350	Structural Geology and Geodynamics
				x					GEOSCI 402	Sedimentology & Stratigraphy
		x					x		GEOSCI 450	Ore Deposits
									GEOSCI 470	Quaternary Geology
									GEOSCI 492	Special Topics in Earth Science