

# A TIME-EFFECTIVE AND FAIR WAY TO COLLECT ASSESSMENT DATA

## Introduction

Collecting program assessment data has proven problematic, in large part because data collection is widely viewed as an additional workload increase for faculty, who are already stretched thin with research, teaching, administrative, and community service responsibilities. Unsurprisingly, many faculty are inclined to collect and provide small amounts of data. If the data are too meager, however, then an assessment that is both useful and fair is not possible. To deal with this, the Department of Geology and Geophysics is asking individual faculty members to provide a subset of data they *regularly collect anyway* as a normal part of their grading procedures; in this sense no new data are required.

## Program At-A-Glance

27 Faculty 0 Instructors 5 TAs 40 RAs	46 Undergraduates  49 Graduate Students	10 BA 36 BS 20 MS/MGeo 29 PhD
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## Program Learning Outcomes

- Students can explain the relevance of geology and geophysics to human needs, including those appropriate to Hawaii, and be able to discuss issues related to geology and its impact on society and planet Earth.
- Students can apply technical knowledge of relevant computer applications, laboratory methods, field methods, and the supporting disciplines (math, physics, chemistry, biology) to solve real-world problems in geology and geophysics.
- Students use the scientific method to define, critically analyze, and solve a problem in earth science.
- Students can reconstruct, clearly and ethically, geological knowledge in both oral presentations and written reports.
- Students can evaluate, interpret, and summarize the basic principles of geology and geophysics, including the fundamental tenets of the sub-disciplines, and their context in relationship to other core sciences, to explain complex phenomena in geology and geophysics.

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## Assessments in 2015 and Findings

- All program outcomes assessed
- More complete and robust data needed
- New data collection strategy devised



## New Method to Collect Data

In one-on-one meetings with the department's assessment coordinator, instructors of **GG200, 303, 305, 325, and 410** identified several exam questions, laboratory assignments, parts of writing assignments, etc. aligned with relevant Program Learning Outcomes and reported student performances on these tasks.

## Results

Feedback from instructors has been positive. This new approach was perceived as fair and useful. The instructors involved provided data willingly, were more engaged in the assessment process, and the quality and quantity of the data increased. These data will be examined this term to assess student performance.

## Action Plan

Continue approach with instructors of courses in Spring term of 2016.

B.S. Curriculum Map	101	101L	103	107	200(W)	250	301	302(W)	303	304	450	305(W)	309(W)	325	410(O)					
<b>SLOs/GG Courses</b>																				
<b>1. Relevance</b>																				
a. To society	1,2	1	1	1	2	0	0	1	2	1	1	2	2	2	2					
b. To understanding the Earth	1	1	1	1	2	0	2	2	3	2	2	2	3	2	2					
<b>2. Technical knowledge</b>																				
a. Supporting sciences	1	1	1	1	2	2	3	3	3	3	3	2	2	2	1					
b. Computer applications	0	0	0	0	1	2	1	2	2	2	3	2	0	0	1					
c. Laboratory methods	0	1	0	1	0	0	3	3	2	2	0	1	3	0	1					
d. Field methods	0	1	1	1	0	0	0	2	2	3	1	3	1	0	1					
<b>3. Scientific method</b>																				
a. Problem definition	1	1	1	1	1	2	2	2	2	2	1	2	2	0	2					
b. Critical analysis	1	1	1	1	1	2	3	3	3	3	3	2	3	1	2					
c. Problem solution	0	1	1	1	0	2	3	3	3	3	3	3	3	2	2					
<b>4. Communication</b>																				
a. Oral	0	0	1	1	0	0	0	2	2	2	2	0	2	0	3					
b. Written	0	1	1	1	2	2	0	3	2	2	2	3	3	2	2					
c. Scientific ethics	0	0	1	1	0	0	2	1	1	2	1	3	2	0	2					
<b>5. Geologic Principles</b>																				
a. Geology subdisciplines	1	1	1	1	2	0	2	2	2	3	2	3	3	2						
b. Relationships to other sciences	1	1	1	1	2	0	2	2	3	3	3	2	3	2	2					
c. Explain complex phenomena	0	0	1	1	1	0	3	2	3	3	2	2	3	2	3					
<b>Focus</b>	W = Writing Intensive					O = Oral														
<b>Level of topic treatment</b>	0 = Negligible					1 = Introductory					2 = Developmental					3 = Mature				

