

Assessment Report Worksheet #3

General Education Program
(Science)

2011-2012

Unit/Office/Program (3-1)
 Formative Assessment (3-3)
 Summative Assessment (3-4)

Assessment Period Covered (3-2)
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Submitted by & Date Submitted (3-5)

Endorsed by: (3-5a)

Evaluation Question (Use a different form for each evaluation question)(3-6):

Can students demonstrate understanding and apply scientific concepts and principles of a field of science and apply scientific *methods* to the inquiry process?

First Means of Assessment for Evaluation Question Identified Above (from your approved assessment plan 3-7)):

Ia. Means of Unit Assessment & Criteria for Success (3-8): One common lab assignment from SC117, one common lab assignment from SC120, and one common lab assignment from SC130 were used to assess student learning in each of the three science General Education Program courses. The criteria for success is based on the course grade system used by the college.*

Ib. Summary of Assessment Data Collected (3-9):

- The overall average points on the lab reports was 13.43 points out of the total points of 32

The breakdown of points per class out of the total points of 8 are as follow:

	Scientific Pro and Reasoning	Strategies	Scientific Comm/using data	Scientific Concept and Related Content	class ave. /32
sc120	3.80	3.78	3.28	2.84	13.70
sc117	3.22	2.82	2.76	2.56	11.36
sc130	4.50	4.24	3.28	3.22	15.24
Average	3.84	3.61	3.11	2.87	13.43

Make a summative reports on the three worksheets from Karen, Berger, and this year

Ic: Use of Results to Improve Program/Unit Impact/Services[Closing the loop] (3-10):

The result demonstrates that students in all the three assessed science courses did poorly on the assignment with less than 50% success rate in all the four categories. With Scientific Procedure & Reasoning being ranked the highest with 48% and Scientific Concept and Related Content being the lowest at 35%.

In comparison to the 2009-2010 summary data, the overall average point of 13.43 points of this study is about 4.74% lower than the 14.95 points that was attained in the first year of the study. This information suggests that students are not mastering the required skills expected in these

classes.

The result of the two studies, the 2009-2010 Assessment Report, and the 2011-2012 Assessment Report both showed that students performance on all the four categories assessed from the laboratory assignments were very poor.

Data from 20110-2011 Assessment Report could not be used to compare with data from the two assessment reports because the assessment strategy employed in the 2010-2011 Assessment Report was summative. The 2010-2011 Assessment Report used course completion rates to answer the evaluation question.

In order to improve program/Unit Impact/Services (Closing the lop):

- Students must learn the general writing skills and scientific writing skills in particular before they start their firs Laboratory Report.
- Science faculty to collaborate with English Division or Language & Literature Division at their campus for English instructors to help teach students scientific report writing.
- Science instructors, especially those teaching the assessed classes to spend some portion of their laboratory time or class time, whichever is most appropriate, to teach students the common method of scientific report writing
- Incorporate more lab. assignments to improve students skills in scientific report writing
- Whichecker is the most appropriate and practical, the Math & Science Division, the Instructional Coordinator or the Department of Instructional Affairs need to provide science faculty with ways to help students to write better laboratory reports
- The overall rating on the science lab report need to be at 22.5 out of 32 (70%) to make a “Yes” answer to the evaluating question on this important student learning exercise.
- Each of the three general science education core courses (sc117, sc120, and sc130) must have a common lab assignment to be designed at the beginning of fall semester by a designated science instructor who will be the science assessment person for the general education science courses.

Second Means of Assessment for Evaluation Question Identified Above (from your approved assessment plan) (3-11):

2a. Means of Unit Assessment & Criteria for Success:

2b. Summary of Assessment Data Collected:

2c. Use of Results to Improve Program/Unit Impact/Services [Closing the loop]:

Third Means of Assessment for Evaluation Question Identified Above (from your approved assessment plan) (3-12):

3a. Means of Unit Assessment & Criteria for Success:

<i>3b. Summary of Assessment Data Collected:</i>
<i>3c: Use of Results to Improve Program/Unit Impact/Services[Closing the loop]:</i>

- The college course grade system is A, B, C, D, and F. The report author use a scale of 100-90 as A; 89-80 as B; 79-70 as C; 69-60 as D, and all numbers below 60 is F.