



## Lander University: Unit/Program Review Report

<b>UNIT/PROGRAM NAME</b>	General Education Competency D: Acquire an understanding of scientific concepts
<b>OFFICE OF PRIMARY RESPONSIBILITY</b>	Office of Academic Affairs
<b>ASSESSMENT COORDINATOR</b>	General Education Committee
<b>SUBMISSION DATE OF THIS REPORT</b>	May 15, 2009

I. **UNIT/PROGRAM GOAL:** Lander University desires its students have college-level knowledge associated with scientific concepts.

<b>Strategic Goal Supported</b>	1. Learning						
<b>Indicator of Success/ Student Learning Outcome</b>	Indicator/ Learning Outcome		AY 2007- 2008	AY 2008- 2009			
	1.	Juniors and Seniors will demonstrate the competencies examined through sub-test scores on a Lander-devised Competency Assessment.	Juniors: 52.1% (n = 186)  Seniors: 55.2% (n = 147)	N/A			
	2.	BIOL-101 students will demonstrate the competencies examined through sub-test scores on a Lander-devised Competency Assessment.	Q1: 75.8% Q2: 78.3% Q3: 93.3%	Q1: 83.4% Q2: 71.8% Q3: 80.5%			
<b>AND</b>							
<b>Summary of Data</b>	3.	Students opinions about their individual grasp of this competency	N/A	Item 11: 66.4% Item 12:			

				76.0% Item 13: 68.1% Item 14: 67.1%			
	4.	Rubric: "Understand the scientific method"	N/A	2.12			
	5.	Rubric: "Apply laboratory techniques for acquiring quantative scientific data"	N/A	2.01			
	6.	Rubric: "Apply laboratory techniques for acquiring qualitative scientific data"	N/A	2.14			
	7.	Rubric: "Apply scientific concepts and theories to explain, predict, or interpret natural phonomena"	N/A	1.97			
<b>Assessment Instrument(s) and Frequency of Assessment</b>	Instrument		Frequency				
	1.	Lander Competency Assessment (Competency D Sub-Test)	Each Spring Semester beginning Spring 2008				
	2.	BIOL-101 Sub-Test	Each Semester				
	3.	Student Opinion Survey	Every Second and Third Spring Semester (Spring 2008 and Spring 2009)				
	4.	Rubric used to evaluate student performance on a laboratory exercise in a selected number of general education lab science courses.	Annually				
	5.	Rubric used to evaluate student performance on a laboratory exercise in a selected number of general education lab science courses.	Annually				
	6.	Rubric used to evaluate student performance on a laboratory exercise in a selected number of general education lab science courses.	Annually				
	7.	Rubric used to evaluate student performance on a laboratory exercise in a selected number of general education lab science courses.	Annually				
<b>Expected Outcome</b>	Met (3)		Partially Met (2)		Not Met (1)		
	1.	The average scores of both Junior and Senior students are at least 50%	The average score of either the Junior or the Senior students is below 50%		The average score of both Junior and Senior students are		

				below 50%
	2.	Percent correct on each question is greater than or equal to 70%	N/A	Percent correct on each question is less than 70%
	3.	Responses to all Items indicate that 70% or more of the students Strongly Agree or Agree	Responses to only two or three Items indicate that 70% or more of the students Strongly Agree or Agree	Responses to no more than one Item indicates that 70% or more of the students Strongly Agree or Agree
	4.	The average of student scores on the rubric will be 2.00 or above.	The average of student scores on the rubric will be greater than or equal to 1.50 and less than 2.00	The average of student scores on the rubric will be below 1.50.
	5.	The average of student scores on the rubric will be 2.00 or above.	The average of student scores on the rubric will be greater than or equal to 1.50 and less than 2.00	The average of student scores on the rubric will be below 1.50.
	6.	The average of student scores on the rubric will be 2.00 or above.	The average of student scores on the rubric will be greater than or equal to 1.50 and less than 2.00	The average of student scores on the rubric will be below 1.50.
	7.	The average of student scores on the rubric will be 2.00 or above.	The average of student scores on the rubric will be greater than or equal to 1.50 and less than 2.00	The average of student scores on the rubric will be below 1.50.
<b>Review of Results and Actions Taken</b>	1.	<p>2009: This particular assessment methodology was discontinued in favor of a rubric that more accurately measures the learning outcome.</p> <p>2008: Students scored below 50% on items dealing with specific content but scored above 50% on items dealing with scientific reasoning. The General Education Committee has shared the data with faculty who teach courses dealing with scientific concepts and encouraged them to examine their courses for broader and more common elements that can be used in more meaningful assessment. The General Education Committee will facilitate faculty development of a common rubric to assess students' understanding of scientific concepts.</p>		
	2.	<p>2009: Recommend continuation of measure.</p> <p>2008: Recommend continuation of measure.</p>		
	3.	<p>009: (Scores from the Spring 2008 Student Opinion Survey are used here since those from the 2009 Survey have not yet been analyzed) It is disconcerting that such a large percentage of students (34%) perceive that this knowledge is not necessary for a complete college education.</p>		

		General Education Committee will charge faculty teaching courses that address this Competency to explore ways of making the content and skills meaningful to students.  Recommend continuation of this measure.	
	4.	2009: We met the target score for this indicator of success. Since this is the first year for this assessment, the science faculty will meet in September and review the assessment and detailed results to determine if revisions in the general education program or the assessment are needed. Also, the science faculty will determine a schedule for future administration of this assessment.	
	5.	2009: We met the target score for this indicator of success. Since this is the first year for this assessment, the science faculty will meet in September and review the assessment and detailed results to determine if revisions in the general education program or the assessment are needed. Also, the science faculty will determine a schedule for future administration of this assessment.	
	6.	2009: We met the target score for this indicator of success. Since this is the first year for this assessment, the science faculty will meet in September and review the assessment and detailed results to determine if revisions in the general education program or the assessment are needed. Also, the science faculty will determine a schedule for future administration of this assessment.	
	7.	2009: We partially met the target score for this indicator of success since the score of 1.97 is 0.03 points below the target value of 2.0. Since this is the first year for this assessment, the science faculty will meet in September and review the assessment and detailed results to determine the significance of this result and to determine if revisions in the general education program or the assessment are needed. Also, the science faculty will determine a schedule for future administration of this assessment.	
	<b>Sum</b>		
	<b>Outcomes</b>		Indicator of Success Evaluation
1.		Not Evaluated	Not Scored
2.		Met	3
3.		Not Met	1
4.		Met	3
5.		Met	3
6.		Met	3
7.		Partially Met	2

<b>Additional Resources Required to Achieve or Sustain Results</b>	\$0.00
	Explanation

**II. UNIT/PROGRAM SUMMARY**

Unit/Program Goal	Strategic Goal Supported	Unit/Program Goal Outcome		Additional Resources Required to Achieve or Sustain Results
		Score	Evaluation	
			Met: 3.00 – 2.01 Partially Met: 2.00 – 1.01 Not Met: 1.00 – 0.01 Not Evaluated: 0.00	
1. Lander University desires its students have college-level knowledge associated with scientific concepts.	1. Learning	2.50	Met	\$0.00
2.	Choose One	0.00	Choose One	\$0.00
3.	Choose One	0.00	Choose One	\$0.00
4.	Choose One	0.00	Choose One	\$0.00
5.	Choose One	0.00	Choose One	\$0.00
6.	Choose One	0.00	Choose One	\$0.00
7.	Choose One	0.00	Choose One	\$0.00
8.	Choose One	0.00	Choose One	\$0.00
9.	Choose One	0.00	Choose One	\$0.00
10.	Choose One	0.00	Choose One	\$0.00
<b>UNIT/PROGRAM TOTALS</b>		<b>2.50</b>	<b>Met</b>	<b>\$0.00</b>