### Colorado State University – Pueblo Academic Program Assessment Report for AY 2013-2014

Program:\_\_\_\_Biology\_\_\_\_\_

Completed by:\_Brian Vanden Heuvel\_\_\_\_\_

Assessment contributors (other faculty involved in this program's assessment): \_\_\_\_\_

Please complete this form for <u>each undergraduate, minor, certificate, and graduate program</u> (e.g., B.A., B.S., M.S.) in your department. Please copy any addenda (e.g., rubrics) and paste them in this document, and submit it to the dean of your college/school as per the deadline established. The dean will forward it to me as an email attachment before June 2, 2014. You'll also find the form at the assessment website at <u>http://www.colostate-pueblo.edu/Assessment/ResultsAndReports/Pages/default.aspx</u>.

Please describe the 2013-2014 assessment activities for the program in Part I. Use Column H to describe improvements planned for 2014-2015 based on the assessment process. In Part II, please describe activities engaged in during 2013-2014 designed to close-the-loop (improve the program) based on assessment activities and the information gathered in 2012-2013. Thank you.

I. Program student learning outcomes (SLOs) assessed in this cycle, processes, results, and recommendations.

A. Which of the program SLOs were assessed during this cycle? Please include the outcome(s) verbatim from the assessment	B. When was this SLO last assessed? Please indicate the semester and year.	C. What method was used for assessing the SLO? Please include a copy of any rubrics used in the assessment	D. Who was assessed? Please fully describe the student group(s) and the number of students or artifacts	E. What is the expected achievement level and how many or what proportion of students	F. What were the results of the assessment?	G. What were the department's conclusions about student performance?	H. What changes/improvements to the <u>program</u> are planned based on this assessment?
plan.		process.	involved.	should be at it?			
1) Students will develop a broad-based knowledge of	AY 2012- 2013	ETS Biology MFT Exam	All senior Biology majors enrolled in	Senior Biology majors enrolled	Biology mean overall score for	Results mostly met our expectations, although the	PROPEL Summer 2014 will continue to examine our entry-level core curriculum (BIOL

Date: \_May 29, 2014\_\_\_\_\_

Due: June 2, 2014

concepts and terminology in molecular, cellular, organismal and ecological			BIOL 493 Seminar for AY 2013-14.	in BIOL 493 mean score will be $\leq$ 50th percentile nationally.	2013-14 ranked nationally at 54th percentile	scores this year were a little lower than last year. Our students are learning biology knowledge and	181/BIOL 182). Given our lower than expected scores in plant biology, we expect to have discussions at the Department level about
biology.				(Overall and most subscores.) 60% of	13 Subscore means ranged from 25st-79th percentile,	concepts well compared to their peers. The lowest scoring subscore	re-inforcement of these topics throughout the core courses, especially upper division core courses.
				Biology students will score above 50th percentile.	with five <50th. Individually 65% of CSUP students scored above 50th percentile.	continues to be in plants, which is less emphasized in our core curriculum, so not surprising.	
2) Students will develop a supporting knowledge of concepts and terminology in the related fields of mathematics, physics and chemistry.	AY 2011- 2012	ACS exam on chemistry sequences administered in CHEM 302 (Organic Chem II) (Also see ETS MFT exam results above.)	Biology students completing CHEM 302 during Spring 2014 (N=31)	National percentiles should be near 50th percentile.	The average national percentile for Biology students was 54% in CHEM 302 61% of Biology Students scored above the 50 <sup>th</sup> percentile	Student results met and exceed Departmental expectations.	We will continue to work with first year advisors and the chemistry department to ensure correct placement into the introductory chemistry courses, and appropriate math placement prior to enrolling in chemistry courses. New pre-reqs within the chemistry curriculum will assist this effort as well.

### Comments:

We currently only examine Chemistry ACS scores for our SLO #2. We currently do not have an easy mechanism to measure knowledge of concepts in mathematics or physics beyond tangential results on questions in the MFT or ACS exams that may use math of physics concepts. Given that we do not get to examine individual questions on the MFT examine, we cannot reliably assess our students knowledge of mathematics and physics beyond grades earned in courses.

# II. Follow-up (closing the loop) on results and activities from previous assessment cycles. In this section, please describe actions taken during this cycle that were based on, or implemented to address, the results of assessment from previous cycles.

A. What SLO(s) did you address? Please include the outcome(s) verbatim from the assessment plan.	B. When was this SLO last assessed? Please indicate the semester and year.	C. What were the recommendations for change from the previous assessment?	D. Were the recommendations for change acted upon? If not, why?	E. What were the results of the changes? If the changes were not effective, what are the next steps or the new recommendations?
5) Student assignments in many core and elective courses will address scientific validity. This will culminate in the peer review process for the research proposal in Seminar.	AY 2010-11	Departmental discussions will be held to revise the tools (see attached form currently used in Seminar) or assessment to better measure the desired outcomes and give us more useful data regarding potential areas for improvement.	Revised Documents were created, but not utilized in Seminar every semester due to multiple instructors and last minute changes to instructor of record.	We will continue to revise these forms for at least two years of courses before we assess their effectiveness in gathering information. Revised Plan is to assess in May 2015.

Comments:

Name of individual writing this evaluation: \_\_\_\_\_

BIOL 493 – BIOLOGY SENIOR SEMINAR Instructor: Dr. M. M. Diawara Colorado State University – Pueblo

## SEMINAR EVALUATION SHEET

Name of Speaker: ..... Date of presentation: ..... Title of Seminar: .....

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## Evaluation

Excellent Good Poor

Subject knowledge
Quality of visual aids
Organization (Introd., Body, Summary)
Eye contact
Enthusiasm
Fielding of questions (Repeat, Answer, etc.)
Spontaneity
Clarity of Speech
Use of time
Appropriate Attire

Your numerical evaluation of the presentation: \_\_\_\_\_ / 100 Your constructive remarks: