Colorado State University – Pueblo Academic Program Assessment Report for AY 2014-2015 **Due: June 1, 2015**

Program: Physics **Date:** June 15, 2015

Completed by: Bruce Lundberg

Assessment contributors (other faculty involved in this program's assessment): Dr. Bill Brown and Dr. Frank Zizza consulted

Please complete this form for each undergraduate, minor, certificate, and graduate program (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 http://www.colostate-pueblo.edu/Assessment/ResultsAndReports/Pages/default.aspx.

Please describe the 2014-2015 assessment activities for the program in Part I. Use Column H to describe improvements planned for 2015-2016 based on the assessment process. In Part II, please describe activities engaged in during 2014-2015 designed to close-the-loop (improve the program) based on assessment activities and the information gathered in 2013-2014. 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 plan.**	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 process.**	D. Who was assessed? Please fully describe the student group(s) and the number of students or artifacts involved.	E. What is the expected achievement level and how many or what proportion of students should be at it?	F. What were the results of the assessment?	G. What were the department's conclusions about student performance?	H. What changes/improvements to the program are planned based on this assessment?
(SLO #3) Effectively communicate their results orally and in writing (SLO #4) Learn independently, locate and use appropriate	No report back to 2011 assesses these SLO's	The assessment method is my qualitative evaluation and judgements of student seminar presentations and	The two physics majors who completed Physics 493 & 499 this year (one graduated, the other will graduate AY 15-16).	Criterion: clear, organized and correct presentation slides; effective oral presentation, effective fielding of questions.	Both students had good presentations based on good work.	The results mainly show the quality and initiative of these particular students. Since the program has only one faculty member, who is not	The program, and the Physics service courses, desparately need an energetic and committed tenure-track Ph.D. physisict who can rebuild, recruit, and advise. ***Even the Physics service courses provided to Engineering, Chemistry, Mathematics, Biology and general educations, are not***

sources of technical material and make use of modern scientivic and computational tools		independent study work, informed by comments from Dr. Brown and faculty.		Substantive use of physics literature, use of computational tools, and physics modeling work. Independence, creativity and initiative in an open-ended physics question and exploration.	One bordered on excellent work.	a physicist (Ph.D. in Engineering), there is not adequate support for undergraduate research in physics. *These results depend on extra volunteer research supervision of Phy 493 and 499 on the part of a few mathematics faculty.*	***currently viable or sustainable without strong commitment by the University to rebuilding the physics faculty.*** The mathematics program in particular has suffered from this decline: its ability to recruit, and to educate students in applied work, has suffered. Some mathematics faculty have had to redirect their research supervison and teaching efforts to make up for the dreadful state of the physics program. **HELP!**

Comments: See comments below.

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?
	Results not included since MFAT scores have not yet arrived.	Need for a new faculty member with a physics Ph.D who is energetic, and a committed leader.	The physics program needed faculty to improve, and the AY13-14 budget crisis left the program with only one faculty member, who is not a physicist, putting the program and service teaching in a desparate condition.	Further devastation of the program and service course delivery. The program has been left in a truly desparate condition. It is not currently viable.

Comments: The one physics program faculty person does not have a Ph.D. in physics, has heavy teaching and research responsibilities, and shares the low morale of retiring. It is not surprising if this one faculty member is not active in program review or program assessment. The HLC requirement for 18 graduate hours in Physics for those who teach college physics is being looked at—since none of our current staff satisfy this requirement! A resignation from a math lecturer position may be replacable by a physics lecturer who can also handle some math, but this at best a partial, temporary and uncertain potential. The departure of Dr. Marta Wallin offers an opportunity to bring in a new, junior faculty member to lead the program, but not for another year – until a replacement for Dr. Wallin can be hired.