

CURRICULUM MAP
CORE COURSES PHYSICS MAJOR

		221	222	321	323	341	431	441	492	493
SLO										
1	Critical Thinking	I	I	II	I	II	II	II	III	III
2	Undergraduate Content									
	2.A Classical Mechanics and Relativity	I	I		I					
	2.B Electromagnetism						II			
	2.C Optics and Waves/Thermodynamics			I		II				
	2.D Quantum Mechanics/Atomic Physics							II		
3	Effective Communication				I		II		III	III
4	Independent Learning				I		II		III	III

Expected Stages of Learning

- I Knowledge and Comprehension
- II Application and Analysis
- III Synthesis and Evaluation

Physics Program Assessment 2014 Major Fields Test Cumulative Results

Last Name	First Name	Test	Score	Percentile	Date	Yearly	Cumulative
		Physics	181	96	4/25/2012 0:00		
		Physics	136	16	4/25/2012 0:00		
		Physics	136	16	4/25/2012 0:00		
		Physics	130	5	4/25/2012 0:00	1/4 = 25%	
		Physics	159	70	4/25/2013 0:00		
		Physics	154	58	4/25/2013 0:00		
		Physics	139	22	4/25/2013 0:00		
		Physics	128	3	4/25/2013 0:00	2/4 = 50%	3/8 = 38%

Colorado State University – Pueblo Academic Program Assessment Report for AY 2013-2014**Due: June 2, 2014****Program:** Physics**Date:** May 26, 2014**Completed by:** Frank Zizza**Assessment contributors (other faculty involved in this program's assessment):** _____

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 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 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 <u>program</u> are planned based on this assessment?
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(SLO #2) Understand and apply knowledge of the various subfields of physics at the undergraduate level.	Spring 2013 (This assessment will be performed every year.)	The assessment tool is a standardized examination.	All graduating physics majors.	Criterion: Overall and in the two breakdown areas of the MFT, ninety percent of CSU – Pueblo physics majors will score at or above the 50 th percentile on the MFAT standardized exam.	For the most recent testing, 50% of the students (2/4) met the criterion for achievement. Over the past two years, the cumulative results are 38% of the students (3/8) met the criterion.	The number of physics majors each year is very small. One student can represent 25% of the graduating class. Nonetheless, the number of students in the 50 th percentile is not close to the desired criterion.	The program underwent its normally scheduled five-year review this year. The lack of success of students on the MFT was discussed. This coming fall, the cumulative results of MFT scores will be delivered to the department. By that time, results of MFT taken this past April 2014 will be available. Of note is the loss of Dr. Marta Wallin. This departure leaves only one tenure-track faculty member in the department, with a 12 credit hour teaching load, in addition to significant research contributions. I have great concern over the continued viability of the physics program.

Comments:

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?

Comments: Physics program faculty have shown little interest in program review or program assessment. The departure of Dr. Marta Wallin offers an opportunity to bring in a new, junior faculty member to lead the program, but not for two years – until a replacement for Dr. Wallin can be hired.