Science Division Course Outcomes Assessment SP 14

Course Title: PHY 205 – Principles of Physics III, 4 credits

Program Team: Paul Jozik

Expected Learning Outcomes:

- 1. Use mathematical models as a medium for quantitative reasoning and describing physical reality.
- 2. Use graphical models to analyze laboratory data.
- 3. Apply the classical conservation laws as a basis of deriving and understanding physics principles.
- 4. Describe physics concepts verbally, graphically, and mathematically
- 5. Solve problems individually and collaboratively
- 6. Use software to analyze physics experiments
- 7. Access, process, analyze and synthesize scientific information.

Assessment (How do or will students demonstrate achievement of each outcome?)

four examinations* and a comprehensive final

*Each of the four examinations included points accrued for successful completion of laboratory and problem-solving activities.

Validation (What methods have you used or will you use to validate your assessment?)

Students passing with a 75% or better

Results (What do your assessment data show? If you have not yet assessed student achievement of your learning outcomes, when is assessment planned?

Follow-up (How have you used or how will you use the data to improve student learning?)

Budget Justification (What resources are necessary to improve student learning?)

No additional resources needed.

Course: PHY 205 SLOA Data Faculty Team: P. Jozik

JUZIK							
	SP 2010	SP 2011	SP 2012	FA 2012	SP 2013	SP 2014	SP 2015
# Active students	8	9	10	1	6	17	
%W	12%	33%	10%	0	0	5%	
*% walk-away Fs No final exam/grade = F	0	0	0	0	0	0	
% Success (A,B,C)	83%	67%	90%	100%	83%	76%	
Mean Common Lab Practical Score							
Common Comprehensive Final Exam Score	Median 71%	84%	76%	82%	80%	69%	
Median Score		88%	74%	82%	84%	69%	
Mean course grade	2.83	3.17	2.78	3.00	2.50	2.38	
Item Analysis Weakest Content Areas							

^{*%} Walk-away Fs = Did not take the final exam and received a grade of F.

Content Areas