

SCCC Program-Level Student Learning Outcomes Assessment Action Plan: *Year 1 of 5*

Program: *LAS: Sciences: Physics Option*

Degree or Certificate: *A.S. Degree*

Offered at (check all that apply): *Ammerman X*

East

Grant

Submitted: *April 26, 2013*

Program-Level Student Learning Outcome(s) (a)	Course-Level Student Learning Outcome(s) (b)	Assessment Tool or Activity (c)	Desired Performance (d)	Timeline (e)	Responsibility for Data Analysis – Key Findings (f)	Use of Results / Action Items and Dissemination (g)
PLO#1: Demonstrate knowledge of factual material essential to their discipline in science.	PHY130, CLO A: Apply the laws of classical mechanics in areas of linear kinematics and dynamics, force and work/energy concepts, conservation of linear and angular momentum, rotational kinematics and dynamics.	Embedded question on exam close to the end of the semester.	2/3 of our students will achieve a 70% or better on the embedded question.	PHY130 will be assessed by Dec/13 and May/14. Results and statistics will be available by May 2014.	Anindita Ghosh Glenda Denicolo	Results will be disseminated to faculty via email and then discussed at a follow-up college-wide meeting to be held early in the semester following the one in which the data were collected. Action plans will be determined at that time and changes made that semester.
	PHY230, CLO A: Solve word problems in the areas of gravity, electrostatics, DC circuits, capacitors, inductors and resistor, the effect of magnetics fields on charged particles and current elements and the origins of magnetic fields.	AP Physics C: Electricity and Magnetism Exam applied as final exam.	2/3 of our students will achieve a 70% or better on the exam.	PHY230 will be assessed by Dec/13 and/or May/14. Results and statistics will be available by May 2014.	Thomas Breeden Glenda Denicolo	
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Follow Up/Actions Taken:

SCCC Program-Level Student Learning Outcomes Assessment Action Plan: *Year 2 of 5*

Program: *LAS: Sciences: Physics Option*

Degree or Certificate: *A.S. Degree*

Offered at (check all that apply): *Ammerman X*

East

Grant

Submitted: *April 26, 2013*

Program-Level Student Learning Outcome(s) (a)	Course-Level Student Learning Outcome(s) (b)	Assessment Tool or Activity (c)	Desired Performance (d)	Timeline (e)	Responsibility for Data Analysis – Key Findings (f)	Use of Results / Action Items and Dissemination (g)
<p>PLO#2: Apply the scientific process, including designing and conducting experiments and testing hypotheses;</p> <p>PLO#4: Prepare written reports in a standard scientific format;</p> <p>PLO#5: Analyze and interpret quantitative scientific data;</p>	<p>PHY132, CLO B: Use various laboratory instruments including computer-based data acquisition.</p> <p>PHY132, CLO C: Interpret and manipulate graphical data including fits to linear and polynomial functions.</p> <p>PHY132, CLO D: Apply critical thinking skills in analyzing practical problems; take necessary data and formulate solutions.</p> <p>PHY132, CLO E: Present the results of experiments as coherent reports including error analysis.</p>	Laboratory report.	2/3 of our students will meet or exceed standards on each of the topics covered in the scoring rubric.	PHY132 will be assessed by Dec/14 and May/15. Results and statistics will be available by May 2015.	Anindita Ghosh Glenda Denicolo Thomas Breedon	Results will be disseminated to faculty via email and then discussed at a follow-up college-wide meeting to be held early in the semester following the one in which the data were collected. Action plans will be determined at that time and changes made that semester.
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Follow Up/Actions Taken:

SCCC Program-Level Student Learning Outcomes Assessment Action Plan: Year 3 of 5

Program: *LAS: Sciences: Physics Option*

Degree or Certificate: *A.S. Degree*

Offered at (check all that apply): *Ammerman X*

East

Grant

Submitted: *April 26, 2013*

Program-Level Student Learning Outcome(s) (a)	Course-Level Student Learning Outcome(s) (b)	Assessment Tool or Activity (c)	Desired Performance (d)	Timeline (e)	Responsibility for Data Analysis – Key Findings (f)	Use of Results / Action Items and Dissemination (g)
PLO#6: Perform laboratory skills specific to their discipline in science;	PHY132, CLO D: Apply critical thinking skills in analyzing practical problems; take necessary data and formulate solutions. PHY132, CLO B: Use various laboratory instruments including computer-based data acquisition.	A practical final laboratory exam.	2/3 of our students will meet or exceed standards on each of the topics covered in the scoring rubric.	PHY132 will be assessed by Dec/15 and May/16. Results and statistics will be available by May 2016.	Glenda Denicolo Anindita Ghosh Thomas Breeden	Results will be disseminated to faculty via email and then discussed at a follow-up college-wide meeting to be held early in the semester following the one in which the data were collected. Action plans will be determined at that time and changes made that semester.
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Follow Up/Actions Taken:

SCCC Program-Level Student Learning Outcomes Assessment Action Plan: Year 4 of 5

Program: *LAS: Sciences: Physics Option*

Degree or Certificate: *A.S. Degree*

Offered at (check all that apply): *Ammerman X*

East

Grant

Submitted: *April 26, 2013*

Program-Level Student Learning Outcome(s) (a)	Course-Level Student Learning Outcome(s) (b)	Assessment Tool or Activity (c)	Desired Performance (d)	Timeline (e)	Responsibility for Data Analysis – Key Findings (f)	Use of Results / Action Items and Dissemination (g)
PLO#7: Evaluate and discuss contemporary science-related social and ethical issues, both locally and globally, using scientific knowledge and reasoning.	No CLO fits this PLO at the moment.	Oral presentation on a contemporary science issue.	2/3 of our students will meet or exceed standards on each of the topics covered in the scoring rubric.	Assessment will occur by Dec/16 and May/17. Results and statistics will be available by May 2017.	Glenda Denicolo Anindita Ghosh Thomas Breeden	Results will be disseminated to faculty via email and then discussed at a follow-up college-wide meeting to be held early in the semester following the one in which the data were collected. Action plans will be determined at that time and changes made that semester.
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Follow Up/Actions Taken:

SCCC Program-Level Student Learning Outcomes Assessment Action Plan: *Year 5 of 5*

Program: *LAS: Sciences: Physics Option*

Degree or Certificate: *A.S. Degree*

Offered at (check all that apply): *Ammerman X*

East

Grant

Submitted: *April 26, 2013*

Program-Level Student Learning Outcome(s) (a)	Course-Level Student Learning Outcome(s) (b)	Assessment Tool or Activity (c)	Desired Performance (d)	Timeline (e)	Responsibility for Data Analysis – Key Findings (f)	Use of Results / Action Items and Dissemination (g)
PLO#3: Read, understand, and critically review scientific papers;	No CLO fits this PLO at the moment.	Oral presentation on a scientific article.	2/3 of our students will meet or exceed standards on each of the topics covered in the scoring rubric.	Assessment will occur by Dec/17 and May/18. Results and statistics will be available by May 2018.	Glenda Denicolo Anindita Ghosh Thomas Breeden	Results will be disseminated to faculty via email and then discussed at a follow-up college-wide meeting to be held early in the semester following the one in which the data were collected. Action plans will be determined at that time and changes made that semester.
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Follow Up/Actions Taken: