

Sciences and Engineering SLO Summary: Report 2011-2012

The SLOs of the following courses were performed using Curricunet.

Chem C101 This course has 8 SLOs. All were met by the students. Assessed in Fall 2011.

Chem C113 This course has 8 SLOs. The students met all of them, including- Demonstrate an understanding of and calculate the driving force behind electrochemical reactions. This is a complex topic. More time will continue to be spent balancing the electrochemical equations, and the role of oxidation states will continue to be introduced earlier and reviewed often. This is an improvement over Spring of 2011 (60%).

Assessed Spring 2012

Chem C113H This course has 9 SLOs. The students met/exceeded all of them, including- Demonstrate an understanding of and calculate the driving force behind electrochemical reactions. This is a complex topic. More time will continue to be spent balancing the electrochemical equations, and the role of oxidation states will continue to be introduced earlier and reviewed often. Consistently, 75 to 85% of the students in the Chem C113H class meet the SLOs common with the Chem C113 class. These percentages are slightly higher than those from students from the Chem C113 class—which is to be expected for Honors students. Assessed Spring 2012

PHSC C111 This course has 5 SLOs. The SLOs were met by 60 to 70 % off all students (depending upon the SLO). The underlying cause for this was determined to be the lack of math preparation (mathematical and set up errors) for the students. Assessed in Fall 2010 and Spring 2011 (ONL). This course was combined with PHSC C112 and an enforceable math prerequisite (Math C055) was established. The new course (PHSC C115) will be re-assessed in the Spring of 2013.

PHSC C112 This course has 7 SLOs. All but 2 SLOs were met. The underlying cause for this was determined to be the lack of math preparation (mathematical and set up errors) for the students. This course was combined with PHSC C111 and an enforceable math prerequisite (Math C055) was established. Assessed in Fall 2010 and Spring 2011 (ONL).

Closing the loop: We will continue to use our SLO data and success and retention to drive the establishment of enforceable prerequisites.

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The completed Assessment Worksheets are available in our Department archives.

Biology 112: This course has 6 SLOs. The students successfully met all but one of them. "80% of students will be able to relate important processes to plant form and function." Only 33% of students met this SLO. Due to its dry nature, plant structures may not be the best topic for the last section of the class. Try to move this back to middle.

Assessed Spring 2011

Biology 251: This course has 10 SLOs. The student successfully met the content SLOs, but "Identify microscopic and gross anatomical structures in laboratory setting" had slightly lower success than the target- 65% rather than 70% of students met this SLO. More lab experiences will be offered in the future. Student success could also be improved by increasing lab opportunities- more models and better slides.

Assessed Spring 2011

Chemistry 101: This course has 8 SLOs. All were met by the students.

Assessed Spring2011

Chemistry 113: This course has 8 SLOs. The students met all but one of them- Demonstrate an understanding of and calculate the driving force behind electrochemical reactions. This is a complex topic. More time will be spent balancing the electrochemical equations in future years. This is an improvement over Spring of 2010 (50%).

Assessed Spring 2011

PHSC 101: This course has 5 SLOs. Students successfully met all but one of them, and that one nearly- the target was 75%; successful students were 73%. We hope the change in prereq for this class will increase student success for this SLO and the others.

Assessed Spring 2011

PHSC 102: This course has 6 SLOs. Students successfully met all but two of them, and those nearly- the target was 75%; successful students were 73% for both. We hope the change in prereq for this class will increase student success for this SLO and the others.

Assessed Spring 2011

PHSC 111: This course has 5 SLOs. All were met by the students.

Assessed Spring2011

PHSC 102: This course has 6 SLOs. Students successfully met all but one of them, and it nearly- the target was 75%; successful students were 73% - mostly due to mathematical and set up errors. We hope the change in prereq for this class will increase student success for this SLO and the others.

Assessed Spring 2011

PHSC 125: This course has 8 SLOs. All were met and well exceeded by the students.
Assessed Spring2011

PHYS 111: This course has 5 SLOs. The students successfully met all but one of them “Understand and solve equations involving gravitation, fluid statics and dynamics, oscillation and simple harmonic motion.” It is assumed that the inabilities observed are due to the fact that appropriate level experiments in most of these areas are difficult to design and execute The use of on-line educational videos of these concepts may improve the students abilities to apply the requisite physics theory to problems in these areas.

Assessed Spring 2011, though the instructor was able to look back on exams for this course over 3 years.

PHYS 211: This course has 5 SLOs. The students successfully met all targets.
Assessed Spring 2011.