

Department of Chemistry
Program Assessment Matrix

May 2008

Chemistry Department Student Learning Outcomes:

1. Students will demonstrate general knowledge of the basic areas of chemistry that is appropriate for each successive chemistry course
2. Students will demonstrate basic laboratory skills appropriate to each chemistry course
3. Students will be able to communicate ideas and processes of chemistry, clearly and precisely, both orally and in writing
4. Students will demonstrate the processes and skills associated with chemistry research, including an integrated working knowledge of instrumentation and chemical processes. This will occur through participation in a research project as part of an upper-level chemistry course and/or as part of an individual research experience.

Course	Outcome 1	Outcome 2	Outcome 3	Outcome 4
210	X	X	X	
211	X	X		
310	X	X		
311	X	X		X
350	X	X		
391			X	
420	X		X	
421	X		X	
422		X		
423		X		
430	X	X		
450	X	X		
480	X	X	X	X
489			X	X
491			X	X

“X” indicates that outcome is assessed in that course.

Chemistry Program Assessment Matrix

Course	Outcome 1	Outcome 2	Outcome 3	Outcome 4
210	a	a, b	b	
211	a	a		
310	a	a		
311	a	a, e		e
350	a	a, h		
391			c	c
420	a	b, f	b, c, d	d, e
421	a	b, f	b, c, d	d, e
422		b		
423		b		
430	a	b, e, f, i		c, e, f, i
450	a	a, b	b	
480	a	b	b, c, d	c, d
489			c, f, i	c, f, i
491			c, d, f, i	c, d, f, i

Assessment Tools

- a) ACS standardized exam performance
- b) Performance on formal written laboratory reports
- c) Literature based technical writing assignment
- d) Formal oral presentation
- Other Assessment tools (Please list each tool and assign letter)
- e) Advanced synthesis project
- f) Research project
- g) Internship experience
- h) quant. analysis of unknowns in lab - assessment of lab technique
- i) Lab notebook

ASSESSMENT TIMELINE

The student learning outcomes in all the core courses will be assessed multiple times for five years starting from fall 2007 through the fall 2011 semesters to refine learning outcomes and course goals. The student learning outcomes for each lower division course will be assessed annually beginning with the fall 2007 semester. For the upper division courses, the learning outcomes will be assessed every three years from the assessment data collected annually.