

Department/Unit Chemistry and Biochemistry College/School CNSM

Chemistry B.S. program

NOTE: Document covers the 2010-11 Academic year through 2011-12. Please contact Bill Simpson or the Provost's office for prior years.

Table 4.1 Outcomes Assessment Implementation Summary			
Complete a separate table for each degree and certificate program			
	Academic Year		
	2010-11	2011-12	
Assessment information	<p><i>SLOA criteria 1) Instructors of 100-level courses met on 20 May 2011 to discuss curricular issues. In the 2010-11 Academic year, lower level ACS examinations were given for General Chemistry I and II and Organic Chemistry. All scores were near the national norms for these examinations.</i></p> <p><i>SLOA criteria 2) We gave the ACS Diagnostic of Undergraduate Chemical Knowledge 2008 (DUCK 08) examination to seven exiting Chemistry majors in Fall 2010. Average score was 89th</i></p>	<p><i>SLOA criteria 1) Instructors of 100-level courses met on 18 May 2012 to discuss curricular issues. In the 2011-12 Academic year, lower level ACS examinations were given for General Chemistry I and II and Organic Chemistry. All scores were near or above the national norms for these examinations. Lack of student success in some cases seemed to be related to student disengagement from the material.</i></p> <p><i>SLOA criteria 2) We gave the ACS Diagnostic of Undergraduate</i></p>	

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	<p>percentile on national norm data. Low was 74th percentile, high was 99th percentile -- See "UAF_DUCK08_Chem434W_30Nov2010.pdf"</p> <p>SLOA criteria 3) We collected and archived all reports from Chem F488. Redacted versions of the reports will be available to our ACS accreditation body. Abstracts of the work done are available at: http://www.uaf.edu/chem/research</p> <p>SLOA criteria 4) On 25 May 2011, we had a meeting of instructors of capstone writing and oral intensive courses. The meeting is documented in the file "SLOA_WandO_25May2011_v2.txt"</p> <p>SLOA criteria 5) We sent out exit interview paperwork for all exiting students. There were two BS students replying, and one was entering graduate school, one was seeking employment at the</p>	<p>Chemical Knowledge 2008 (DUCK 08) examination to two senior Chemistry majors in Fall 2011 and to seven senior Chemistry majors in Spring 2012. The median score was 70th percentile on national norm data. Low was 30th percentile, high was 84th percentile -- See "UAF_DUCK08_AY2011-12.pdf"</p> <p>SLOA criteria 3) We collected and archived all reports from Chem F488. Redacted versions of the reports will be available to our ACS accreditation body. Abstracts of the work done are available at: http://www.uaf.edu/chem/research</p> <p>SLOA criteria 4) On 17 May 2012, we had a meeting of instructors of capstone writing and oral intensive courses. One instructor's opinions / evaluation is documented in the file "upper lab writing assessment."</p> <p>SLOA criteria 5) We sent out exit interview paperwork for all exiting</p>	

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	<i>time of graduation.</i>	<i>students. There were two BS students replying, and both were entering graduate school at the time of graduation.</i>	
Conclusions drawn from the information collected above and how are faculty collectively involved in drawing conclusions	<p><i>SLOA criteria 1) The primary conclusion of those participating in the meeting was that more frequent examinations may give better student involvement. ACS national scores appear near national norms.</i></p> <p><i>SLOA criteria 2) The results of the exit examination were studied for knowledge across the curriculum, and all areas were good. The weakest area was analytical chemistry, so we consider how we can improve that area.</i></p> <p><i>SLOA criteria 3) Reports were of good quality. In Spring 2011, we implemented weekly "group meetings" of all students in the course, which was successful in keeping students on track.</i></p> <p><i>SLOA criteria 4) The writing and oral skills of our graduates was</i></p>	<p><i>SLOA criteria 1) More frequent examinations do NOT give better student involvement. There was discussion about ways to engage students further and ideas such as increasing connection between lecture and laboratory and possibly using some small group learning activities in lab emerged.</i></p> <p><i>SLOA criteria 2) The results of the exit examination were studied for knowledge across the curriculum, and all areas were good.</i></p> <p><i>SLOA criteria 3) Reports were of good quality.</i></p> <p><i>SLOA criteria 4) The writing and oral skills of our graduates was found to be of high quality and the courses were found to be effective. It was considered that students should be given more reading assignments with</i></p>	

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	<p><i>found to be of high quality and the courses were found to be effective. It was considered that the two capstone laboratory courses (434 and 413) might be consolidated to one capstone writing-intensive laboratory course.</i></p> <p><i>SLOA criteria 5) We feel we need a better way to get information about employment of our B.S. graduates.</i></p>	<p><i>scientific literature and they should write graded reviews of papers.</i></p> <p><i>SLOA criteria 5) We feel we need a better way to get information about employment of our B.S. graduates.</i></p>	
<p>Curricular changes resulting from conclusions drawn above</p>	<p><i>SLOA criteria 1) We will consider reconfiguring syllabi to give more frequent testing.</i></p> <p><i>SLOA criteria 2) We are considering changes to the analytical curriculum. Those changes will be discussed further and with a new faculty member being hired in the area of Analytical / Environmental Chemistry.</i></p> <p><i>SLOA criteria 3) We implemented "group meetings" to keep students on track in Spring 2011, and will</i></p>	<p><i>SLOA criteria 1) There will be attempts to increase connection between lecture and laboratory and plans to increase active learning in lab and lecture. We are also instituting the Chemistry Learning Center as a way to help students succeed in general chemistry.</i></p> <p><i>SLOA criteria 2) We are considering changes to the analytical curriculum. Those changes will be discussed further and with a new faculty member being hired in the area of</i></p>	

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	<p><i>continue that practice.</i></p> <p><i>SLOA criteria 4) We are considering consolidation of the two capstone writing-intensive courses (434 and 413) to one unified capstone.</i></p> <p><i>SLOA criteria 5) We are considering ways to get better information on student outcomes, but students we personally know the outcome of are all employed or continuing their education.</i></p>	<p><i>Analytical / Environmental Chemistry.</i></p> <p><i>SLOA criteria 3) There will be no changes to our undergraduate research course or practices.</i></p> <p><i>SLOA criteria 4) We are still considering consolidation of the two capstone writing-intensive courses (434 and 413) to one unified capstone.</i></p> <p><i>SLOA criteria 5) We are considering ways to get better information on student outcomes, but students we personally know the outcome of are all employed or continuing their education.</i></p>	