

**Assessment and Evaluation Plan for the BS Chemistry Program
(Certified by the American Chemical Society)**

Program Objective	Performance Criteria	Evaluation Method
<i>What are the program objectives? What should our students know and be able to do?</i> <i>[Mission Goals]</i>	<i>How will we know that the objectives have been met? What level of performance meets each objective?</i>	<i>What assessment methods will be use to collect data? How will we interpret and evaluate data?</i>
I. Competence in the basic content of organic, inorganic, physical, analytical, instrumental, chemistry, and biochemistry. [Goals: 1, 2, and 3]	Students will score within a standard deviation of the national average on the ACS exams given. The institution will maintain ACS program certification.	ACS exams to be assessed & interpreted annually. Stats are available relative to national standard by question, subject area, and overall score.
II. The ability to carry out experimental protocols, use scientific instrumentation to collect, analyze, and interpret data. [Goals: 2 – 5]	A capstone laboratory course will test their knowledge and experience of lab skills including synthetic and instrumental knowledge. Students will submit informal and formal lab reports. They will maintain lab notebooks summarizing procedures, data collected and analyzed in tables and/or graphs.	Continuous assessment during experimentation and on lab reports in order to improve lab procedures and other lab skills.
III. The ability to communicate effectively in both oral and written presentations. [Goals: 2 – 5]	Students must pass several DSW courses with at least a C. Oral exams will be used to assess the students' understanding of scientific principles in the capstone lab course.	Continuous assessment and feedback during oral exams and on all written reports will be provided to help students improve oral and written communication skills.
IV. Proficiency in the use of appropriate computer applications and information technology as applied to chemistry. [Goals: 2 – 5]	Library database searches will be required. Basic computer programs (Word, Excel) will be required. IT tools such as the Internet and computer-based and printed literature searches to locate and retrieve scientific information including safety information (MSDS). Students will carry out data collection and analysis using computers.	Continuous assessment and feedback during oral exams, written reports and research papers will be provided to help students improve computer and technology skills.
V. Aptitude in advanced laboratory techniques [Goals: 2 – 5]	Learning techniques in quantification, isolation analysis, and spectroscopy as appropriate to the specific research project.	Continuous assessment via lab reports and regular meeting with supervisor. A research presentation and thesis are required for the BS degree.

<p>VI. Adequate preparation to compete successfully in a professional school or a science-related career. [Goals: 1, 2, 4, 5 and 7]</p>	<p>50 % of our students will be accepted to professional or graduate school. The rest will be employed in a science-related job.</p>	<p>Survey of graduates. Acceptance rates at graduate/professional schools.</p>
<p>VII. Students will indicate they are satisfied with their general experience, specific skills and knowledge learned in the program. [Goals: 1 – 9]</p>	<p>90% of Chemistry majors will indicate they were “satisfied” or “very satisfied” on the student survey</p>	<p>Data will be collected each spring semester in senior seminar and compiled every five years.</p>