



*DEPARTMENTAL PLAN FOR ASSESSMENT OF STUDENT LEARNING
2005–2006 ACADEMIC YEAR*

Department: Chemistry

Program: Master of Science; Doctor of Philosophy

Mission Statement

The mission of the Department of Chemistry graduate program is to provide quality learning experiences in classroom and hands-on laboratory research settings to post-baccalaureate students. These experiences will promote critical thinking and creative skills based on the theory, principles, and techniques of chemistry. Graduates will be prepared to become professional chemists in a variety of situations, including academic and industrial positions.

Student Learning Goals

Student Learning Goal 1: Learning Chemistry

- Objective 1.1: Students will increase their knowledge of chemistry facts and relationships, both theoretical and practical.
- Objective 1.2: Students will improve their logical and critical thinking skills, including design and interpretation of experiments.
- Objective 1.3: Students will take responsibility for continuing self-education (life-long learning). This will include learning to use multiple sources of information, especially the chemical literature.

Student Learning Goal 2: Communicating Chemistry

- Objective 2.1: Communicate effectively in writing.
- Objective 2.2: Communicate effectively in oral presentations.

Student Learning Goal 3: Acting professionally

- Objective 3.1: Determine the most appropriate way to get a job done.
- Objective 3.2: Learn how to act ethically as a professional.
- Objective 3.3: Become capable of independent operation (Ph.D. only).

Student Learning Goals & Objectives	Educational Experiences	Assessment Methods	Timeline	Responsibilities	Use of Results and Process for Documentation & Decision-Making
<p>Goal 1 Learning Chemistry</p> <p>Objective 1.1: Students will increase their knowledge of chemistry facts and relationships, both theoretical and practical.</p> <p>Objective 1.2 Students will improve their logical and critical thinking skills, including design and interpretation of experiments.</p> <p>Objective 1.3: Students will take responsibility for continuing self education (life-long learning). This will include learning to use multiple sources of information, especially the chemical literature.</p>	<p>Chemistry graduate courses and research</p> <p>Chemistry graduate courses and research</p> <p>Proposal (Ph.D.)</p> <p>Research</p> <p>Departmental seminar(s)</p>	<p>Cumulative exams</p> <p>Course exams</p> <p>Grade on research progress</p> <p>Oral progress reports</p> <p>Thesis or dissertation</p> <p>Proposal defense</p> <p>Advisor grade</p> <p>Oral progress reports</p> <p>Faculty grading</p>	<p>4 per semester</p> <p>Every semester</p> <p>Every semester</p> <p>Annually</p> <p>End of program</p> <p>Third year</p> <p>Every semester</p> <p>Annually</p> <p>Once (M.S.) or twice (Ph.D.)</p>	<p>Individual faculty</p> <p>Individual faculty</p> <p>Faculty Advisor</p> <p>Faculty advisory committee</p> <p>Faculty advisory committee</p> <p>Faculty advisory committee</p> <p>Individual faculty</p> <p>Faculty advisory committee</p> <p>Seminar grading committee</p>	<p>Analysis by department chair in conjunction with Chair Advisory Committee</p> <p>Discussion at annual department retreat</p>

Student Learning Goals & Objectives	Educational Experiences	Assessment Methods	Timeline	Responsibilities	Use of Results and Process for Documentation & Decision-Making
<p>Goal 2 Communicating Chemistry</p> <p>Objective 2.1: Communicate effectively in writing.</p> <p>Objective 2.2: Communicate effectively in oral presentations.</p>	<p>Research publications Departmental seminar(s) Proposal (Ph.D.)</p> <p>Research presentations at meetings Departmental seminar(s)</p>	<p>Oral Progress Report Faculty grading</p> <p>Proposal defense</p> <p>Oral Progress Report Faculty grading</p>	<p>Annually (MS) 2nd year (PhD) 2nd & 3rd Third year</p> <p>Annually (MS) 2nd year (PhD) 2nd & 3rd</p>	<p>Faculty advisory committee Seminar grading committee Faculty advisory committee Faculty advisory committee</p> <p>Seminar grading committee</p>	<p>Analysis by department chair in conjunction with Chair Advisory Committee</p> <p>Discussion at annual department retreat</p>
<p>Goal 3 Acting Professionally</p> <p>Objective 3.1: Determine the most appropriate way to get a job done.</p> <p>Objective 3.2: Learn how to act ethically as a professional.</p> <p>Objective 3.3: Become capable of independent operation (Ph.D. only).</p>	<p>Research</p> <p>Research</p> <p>Research</p>	<p>Oral Progress Report</p> <p>Oral Progress Report</p> <p>Oral Progress Report</p>	<p>Annually</p> <p>Annually</p> <p>Annually</p>	<p>Faculty Advisory Committee</p> <p>Faculty Advisory Committee</p> <p>Faculty Advisor</p>	<p>Analysis by department chair in conjunction with Chair Advisory Committee</p> <p>Discussion at annual department retreat</p>