

Graduate Program in Medicinal Chemistry Master's Degree Learning Goals and Assessment

The Graduate Program in Medicinal Chemistry trains Master of Science students at an advanced level in all aspects of Medicinal Chemistry and prepares them for positions in industry and government.

Learning Goal 1 for Graduate Students: Attain mastery of the essential aspects of practice and research (for M.S. degrees with thesis option) in the field of Medicinal Chemistry

Assessment of student achievement of Goal 1:

- Grades in graduate courses
- Review by faculty of student progress with close advising and mentoring
- Comprehensive examination assessing depth and breadth of knowledge or a capstone paper or a research thesis
 - Assessment of student's performance by committee of graduate faculty members
- Presentation of research results at group meetings (for thesis option)
- Presentation of one seminar in an area of Medicinal Chemistry unrelated to the student's research

Roles of the program in helping students to achieve Goal 1:

- Close advising to assure that students are being prepared in a coherent and academically rigorous way
- Effective monitoring of student progress
 - Includes annual reports on academic and research progress from both the student and the student's committee chair
 - Hold regular group meetings to discuss research projects
- Periodic review of curricular offerings, degree requirements and assessment tools
 - By program faculty

Learning Goal 2 for Graduate Students: Engage in and conduct original research (for Master's degrees with thesis)

Assessment of graduate student achievement of Goal 2:

- Assessment of quality of Master's thesis
 - Public defense of thesis
 - Critical reading of thesis by committee of graduate faculty members
 - Submission and acceptance of peer-reviewed articles and conference papers
- Achievement of students as evidenced by continuation of graduate studies or professional placement.

Role of the program in helping graduate students to achieve Goal 2:

- Provide early introduction to research methods and opportunities for research
- Provide opportunities to present research and receive feedback
- Maintain adequate funding levels to support the research
- Provide adequate facilities, instrumentation, and research environment for research projects
- Provide comprehensive advising and assist in the identification of mentors

Learning Goal 3 for Students: Prepare to be professionals in Medicinal Chemistry

Assessment of graduate student achievement of Goal 3:

- Review evidence of papers presented, publication, and professional networking
- Collection of data on professional placement data or continuation of graduate studies
- Review by external advisory committees, both inside of and external to the academy.
- Survey alumni

Role of the program in helping students achieve Goal 3:

- Provide students with ample opportunities to present research findings
- Provide opportunities for students to meet with guest speakers from industry, academia, and government laboratories
- Encourage participation in professional development programs in such areas as interview skills, presentation skills, development of CVs, use of research tools, and training in the responsible conduct of research.
- Acquaint students with career opportunities in industry and government laboratories

The leadership of the Medicinal Chemistry graduate program will regularly review the structure and content of the program and the feedback received from assessments and surveys. These reviews will be used to provide the best possible education to students that meet current needs for professionals in Medicinal Chemistry.