

College of Arts & Sciences Chemistry, MS

Broad Learning Goals

- A. The student will develop a broad understanding of the major areas of chemistry with an understanding and awareness of the professional, ethical and safe applications of their knowledge.
- B. The student will acquire a significant and deep-rooted knowledge in their chosen sub-discipline in chemistry.
- C. The student will be able to report, present and/or publish the results of their research and independently solve research problems.
- D. The student will be prepared for entry into academe or industry.

Student Learning Outcomes

- A1. Students will possess broad factual knowledge at an advanced level in multiple areas of chemistry.
- A2. Students will actively participate in the weekly departmental seminars.
- B1. Students will learn subject specific content such as synthesis and characterization, reaction mechanisms, thermodynamics, quantum mechanics, kinetics, spectroscopy, equilibrium and quantitative methods.
- B2. Students will attend divisional student seminars in their chosen area of chemistry.
- C1. Students will present independently researched topics in their divisional seminar.
- C2. Students will publish their research findings in peer reviewed scientific journals with their research advisor(s).
- C3. Students will write coherent masters theses or written final projects covering their specific contributions to the discipline of chemistry.

- D1. Students will be members of at least one professional scientific organization.
- D2. Students will engage in collaborative research with other scientists in their field.
- D3. Students will solve research problems independently or as a small team.