

# Roadmap for MS Degree in Chemistry

## Department of Chemistry & Biochemistry

### 2019-2020

The Chemistry & Biochemistry MS program generates individualized roadmaps for each graduate student in consultation with the student's graduate committee. There are three tracks that can be followed, with the required coursework outlined below. Completion of coursework early in the program is encouraged. Note that most graduate courses are taught once every two years.

#### **MS Chemistry**

The MS in Chemistry program does not have specific course requirements other than completing the general university/MS degree requirements and selecting coursework appropriate for an MS in Chemistry. Successful completion of 30 semester credits is required, of which 21 credits must be at the graduate level. The MS degree requires a research-based thesis.

Complete the seminar series, CHEM F688 Biochemical and Molecular Biology Seminar (offered every semester) and/or CHEM 691 Research Presentation Techniques (offered Spring) at least twice; 2 credits.

#### **MS with Biochemistry and Neuroscience Concentration**

In addition to the general university and MS degree requirements, complete three from the following:

CHEM F654; Protein Structure and Function; 3 credits; offered Spring even years,  
CHEM F657; Molecular Foundations of Gene Expression; 3 credits, offered Spring even years  
CHEM F674; Membrane Biochemistry and Biophysics; 3 credits; offered Fall even years  
CHEM F670; Cellular and Molecular Neuroscience; 3 credits; offered Fall even years.  
CHEM F675; Cellular Signaling; 3 credits; offered Spring odd years.

Complete the seminar series, CHEM F688, Biochemical and Molecular Biology Seminar at least twice; 2 credits, offered every semester.

#### **MS with Environmental Chemistry Concentration**

In addition to the general university and MS degree requirements, complete two of the following:

CHEM F609; Aquatic and Environmental Geochemistry; 3 credits; offered Spring odd years.  
CHEM F606; Atmospheric Chemistry; 3 credits; offered Fall even years  
CHEM F631; Environmental Fate and Transport, 3 credits, offered Spring even years.  
CHEM F655; Environmental Toxicology, 3 credits, offered Fall odd years.  
Complete CHEM F691; Research Presentation Techniques, at least twice; 2 credits; offered Spring