Chemistry M.S.  
2016-2017

Chemistry Core Requirements
Students must successfully complete a minimum of 18 hours of graduate career chemistry courses, 12 hours of which must be taken at UHCL. All core requirements and chemistry electives must be completed with a grade of "B-" or better.

A minimum of three hours must come from each of the following areas:

*Organic Chemistry*
  - **CHEM 5134** Synthetic Organic Chemistry
  - **CHEM 5336** Organometallic Chemistry
  - **CHEM 5337** Physical Organic Chemistry

*Analytical Chemistry*
  - **CHEM 5133** Spectroscopic Identification of Organic Compounds
  - **CHEM 5636** Gas Chromatography - Mass Spectrometry

*Physical Chemistry*
  - **CHEM 5130** Mathematical Methods and Physical Concepts in Chemistry
  - **CHEM 5235** Kinetics of Chemical Reactions
  - **CHEM 5637** Modern Spectroscopy
  - **CHEM 5639** Symmetry in Chemistry

*Inorganic Chemistry*
  - **CHEM 5335** Advanced Inorganic Chemistry
  - **CHEM 5336** Organometallic Chemistry

*Graduate Seminar*
  - **CHEM 6731** Graduate Seminar
  
  and
  
  Extended Course work option courses
  
  (or)
  
  Thesis option courses

Chemistry Extended Course Work Option
Under the extended course work option, a minimum of 30 hours of formal course work (including three hours **CHEM 6731** Graduate Seminar) must be completed. In addition, students
must choose an adviser and complete a total of six hours credit in the two Research Project and Seminar courses (CHEM 6837 and CHEM 6838).

**Chemistry Thesis Option**
Under the thesis option, a minimum of 24 hours of formal course work (including three hours of CHEM 6731 Graduate Seminar) must be completed. In addition, students must complete a minimum of six hours of CHEM 6939, Master’s Thesis Research. A maximum of nine hours of CHEM 6939 can be applied toward graduation requirements. Remaining course work for a total of 36 hours may come from CHEM 6838 Research Project and Seminar or additional formal courses.

**Chemistry Specializations**
Students in the Specialization Area must complete the required courses with grades of "B-" or better.

**Specialization in Biochemistry and Medicinal Chemistry**
In addition to the M.S. Chemistry core requirements, students are required to take the following courses:

- **CHEM 5134** Synthetic Organic Chemistry
- **CHEM 5136** Biofuel
- **CHEM 5931** Research Topics in Chemistry

And choose one of the following:

- **CHEM 5931** Research Topics in Chemistry
- **CHEM 5939** Independent Study in Chemistry
- **CHEM 5919** Independent Study in Chemistry

**Specialization in Petrochemical & Process Chemistry**
In addition to the M.S. Chemistry core requirements, the following courses must be selected:

- **CHEM 5931** Research Topics in Chemistry
- **CHEM 5635** Introduction to Polymer Chemistry
- **CHEM 5235** Kinetics of Chemical Reactions