MASTER OF SCIENCE IN CHEMISTRY

Program Description

The Master of Science in Chemistry is designed to train chemists for careers in business, industry, or academics. This degree is also appropriate for those students planning to continue their training in Ph.D. programs at other institutions.

Admissions

Applicants seeking admission to the graduate program in chemistry must submit the following directly to the Office of Graduate Admissions:

1. Graduate Application (http://www.shsu.edu/admissions/apply-texas.html)
2. Application fee (http://www.shsu.edu/dept/graduate-studies/application-fee.html)
3. Official transcript(s) of all previous college work
4. Official GRE scores
5. Three letters of recommendation

Applicants must have a major or minor in chemistry (with at least a 2.5 GPA in their undergraduate chemistry courses typically including Analytical or Quantitative Chemistry, Instrumental Methods, one year of calculus-based Physical Chemistry, and Inorganic Chemistry) or commensurate industrial experience.

For a final admissions decision, a holistic review of each student's application file will be completed on a competitive basis. Currently a 3.0 GPA is required for financial support.

The Department of Chemistry offers classes in a wide variety of chemical subjects including analytical, forensic, inorganic, organic, and physical chemistry, toxicology, and biochemistry.

Degree Requirements

Master of Science, 31 Semester Hours with Minor and Thesis

Course Area	
Chemistry	13
Research and Thesis	6
Minor field that logically supports the major (Computing Science, Mathematics, Physics, Biology, etc.)	12
Total Hours	31

Plan 1 - MS in Chemistry (Thesis Option)

Master of Science, 31 Semester Hours with Minor and Thesis		
Specified Course		
CHEM 5100	Chemical Literature & Seminar	1
CHEM 6398	Graduate Research In Chemistry [1]	3
Restricted Electives		
Select four of the following: [2]		12
CHEM 5361	Physical Organic Chemistry	
CHEM 5362	Organic Reaction Mechanisms	
CHEM 5368	Analytical Spectroscopy	
CHEM 5372	Advanced Biochemistry I	
CHEM 5374	Chem Of Coordination Compounds	
CHEM 5381	Adv Physl Chem Thermodynamics	
CHEM 5385	Selected Topics In Adv Chem	
Secondary Field		
Select four graduate courses in a field that logically supports the major [3]		12
Thesis		
CHEM 6099	Thesis [4]	3
Total Hours		31

[1] Usually taken every semester and receives a grade of "IP" until the final semester the research project is completed.

2 One course from 4 different areas (Analytical Chemistry, Biochemistry, Inorganic Chemistry, Organic Chemistry, and Physical Chemistry) is required.

3 Courses should be selected in consultation with the Graduate Advisor.

4 Once enrolled in CHEM 6099, the student must enroll in this course every semester until graduation.

Master of Science, 30 Semester Hours without Minor and with Thesis

Course Area	
Chemistry	24
Research and Thesis	6
Total Hours	30

Plan 2 - MS in Chemistry (Thesis Option)

Master of Science, 30 Semester Hours without Minor and with Thesis

Specified Course		
CHEM 5100	Chemical Literature & Seminar	1
CHEM 6398	Graduate Research In Chemistry [1]	3
Restricted Electives		
Select four of the following:		12
CHEM 5361	Physical Organic Chemistry	
CHEM 5362	Organic Reaction Mechanisms	
CHEM 5368	Analytical Spectroscopy	
CHEM 5372	Advanced Biochemistry I	
CHEM 5374	Chem Of Coordination Compounds	
CHEM 5381	Adv Physl Chem Thermodynamics	
Electives		
Select four graduate courses in CHEM [2]		11
Thesis		
CHEM 6099	Thesis [3]	3
Total Hours		30

1 Usually taken every semester and receives a grade of "IP" until the final semester the research project is completed.

2 Courses should be selected in consultation with the Graduate Advisor. One course from 4 different areas (Analytical Chemistry, Biochemistry, Inorganic Chemistry, Organic Chemistry, and Physical Chemistry) is required. The student may take CHEM 5100 two additional times for a total of three credit hours.

3 Once enrolled in CHEM 6099, the student must enroll in this course every semester until graduation.

Master of Science, 36 Semester Hours with Minor, Non-Thesis

Course Area	
Chemistry	24
Minor field that logically supports the major (Computing Science, Mathematics, Physics, Biology, etc.)	12
Total Hours	36

Plan 3 - MS in Chemistry (Non-Thesis Option)

Master of Science, 36 Semester Hours with Minor, Non-Thesis

Specified Courses		
CHEM 5100	Chemical Literature & Seminar [1]	3
CHEM 6398	Graduate Research In Chemistry	3
Restricted Electives		
Select four of the following:		12
CHEM 5361	Physical Organic Chemistry	
CHEM 5362	Organic Reaction Mechanisms	
CHEM 5368	Analytical Spectroscopy	
CHEM 5372	Advanced Biochemistry I	
CHEM 5374	Chem Of Coordination Compounds	

CHEM 5381	Adv Physl Chem Thermodynamics	
CHEM 5385	Selected Topics In Adv Chem	
Electives		
Select two graduate courses in CHEM		6
Secondary Field		
Select four graduate courses in PHYS, BIOL, or MATH [2]		12
Total Hours		36

[1] CHEM 5100 must be taken three times for a total of three credit hours.

[2] Courses should be selected in consultation with the Graduate Advisor.

Master of Science, 36 Semester Hours without Minor, Non-Thesis

Course Area	
Chemistry	36
Total Hours	36

Plan 4 - MS in Chemistry (Non-Thesis Option)

Master of Science, 36 Semester Hours without Minor, Non-Thesis

Specified Courses		
CHEM 5100	Chemical Literature & Seminar [1]	3
CHEM 6398	Graduate Research In Chemistry	3
Restricted Electives		
Select four of the following:		12
CHEM 5361	Physical Organic Chemistry	
CHEM 5362	Organic Reaction Mechanisms	
CHEM 5368	Analytical Spectroscopy	
CHEM 5372	Advanced Biochemistry I	
CHEM 5374	Chem Of Coordination Compounds	
CHEM 5381	Adv Physl Chem Thermodynamics	
CHEM 5385	Selected Topics In Adv Chem	
Electives		
Select six graduate courses in CHEM		18
Total Hours		36

[1] CHEM 5100 must be taken three times for a total of three credit hours.