

Chemistry, MS

Master of Science in Chemistry Degree Program Requirements

It is recommended that students who plan to qualify for the MS in Chemistry spend at least one year in residence and students who plan to study during the summer periods plan to devote at least one summer to research.

Each candidate is expected to successfully complete a minimum of 24 semester hours of course work exclusive of research.

Core Classes

CHEM 5232	Instrumental Lab	2
CHEM 5240	Advanced Organic Chemistry	2
CHEM 5332	Instrumental Analysis	3
CHEM 5453	General Biochemistry	4

Electives

Select one from the following courses:

BIOL 5402	Microscopic Anatomy	
CHEM 5321	Polymer Chemistry	
CHEM 5441	Identification of Organic Compounds	

Thesis 6

Select one concentration from below 9

Total Hours 30

Chemistry Concentration

CHEM 5331	Advanced Analytical Chemistry	3
CHEM 5361	Advanced Inorganic Chemistry	3
CHEM 5378	Advanced Physical Chemistry	3

Total Hours 9

Chemical Biology Concentration

BIOL 5301	Genomics	3
BIOL 5306	Micro Activ Toxicology	3
BIOL 5312	Cell Biology	3

Total Hours 9

Master of Science in Chemistry-Chemistry Concentration Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CHEM 5453		4 CHEM 5441	4
CHEM 5332		3 or BIOL 5402	
CHEM 5232		2 CHEM 5331	3
CHEM 5240		2 CHEM 5378	3
Total		11 Total	10

Total Hours: 21

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CHEM 5361		3 CHEM 5602	6
Total		3 Total	6

Total Hours: 9

Name	Unit
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Total Semester Credit Hours: 30

MS Chemistry-Chemical Biology Concentration

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CHEM 5453		4 CHEM 5441	4
CHEM 5332		3 or BIOL 5402	
CHEM 5232		2 BIOL 5301	3
CHEM 5240		2 BIOL 5306	3
Total		11 Total	10

Total Hours: 21

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
BIOL 5312		3 CHEM 5602	6
Total		3 Total	6

Total Hours: 9

Name	Unit
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Total Semester Credit Hours: 30

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

MS Chemistry

Degree Skills

1. Ability to utilize advanced chemical synthesis methods
2. Pharmaceutical manufacturing
3. Environmental analysis
4. Forensic analysis