

CHEMISTRY, BS

Program Description

The Bachelor of Science in Chemistry equips graduates with the skills necessary to proceed to graduate or professional programs, and to gain employment in academic, government, and industry sectors. Chemistry graduates earn over 600 hours of hands-on, laboratory experience to prepare them for a career as a chemist. Chemists graduate having been trained on state-of-the-art instrumentation and in techniques that are industry standards.

The LSSU chemistry program has been approved by the American Chemical Society, and may provide certified degrees in Chemistry, Chemistry in Secondary Education, Biochemistry Pre-Professional, and Forensic Chemistry. Students pursuing the ACS certified degree will participate in an applied research project in close collaboration with faculty members to address meaningful chemical-based problems.

Program Learning Outcomes

- Demonstrate proficiency in the five Chemistry sub disciplines defined by the American Chemical Society, including analytical chemistry, biochemistry, inorganic chemistry, organic chemistry, and physical chemistry.
- Demonstrate readiness for employment as a chemist, science technician, or chemical technician at the baccalaureate level or graduate and professional level study.
- With the guidance of a faculty mentor, develop a well-designed, well-executed, and clearly communicated research project that contributes to scientific knowledge in the field of Chemistry.

Bachelor of Science Chemistry

Code	Title	Hours
Chemistry Degree Requirements		
CHEM 115	General Chemistry I	5
CHEM 116	General Chemistry II	5
CHEM 199	Chemistry First Year Seminar	1
CHEM 225	Organic Chemistry I	4
CHEM 231	Quantitative Analysis	4
CHEM 261	Inorganic Chemistry	4
CHEM 299	Chemistry Sophomore Seminar	1
CHEM 326	Organic Chemistry II	4
CHEM 332	Instrumental Analysis	4
CHEM 351	Introductory Biochemistry	4
CHEM 361	Physical Chemistry I	4
CHEM 363	Phy Chem Lab:Kinetic/Reac Dy	1
CHEM 410	Molecular Spectroscopy	4
Choose Research or Course Option:		
Research Option		
CHEM 395	Junior Seminar	1
CHEM 49X	Senior Research ¹	2
CHEM 499	Senior Seminar	1
10 Credits of CHEM/CCHM Electives 300 level or higher		10
Course Option		
14 Credits of CHEM/CCHM Electives 300 level or higher		14
Support Courses		

MATH 151	Calculus I	4
MATH 152	Calculus II	4
MATH 207	Prin of Statistical Methods	3
PHYS 2X1	Physics I	4
PHYS 2X2	Physics II	4

Required for American Chemical Society Certified Degree

CHEM 495	Senior Laboratory Research ¹	
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Total Hours 92

¹ For American Chemical Society certified degree, additionally required (total lab hours must be at least 400 hours). See Department Chair for special rules regarding ACS certification.

General Education: All LSSU bachelor's degree candidates must complete the LSSU General Education Requirements.

A minimum of 124 credits (at the 100 level or higher) must be earned for graduation with a cumulative gpa of 2.00 or higher. A gpa of 2.00 or higher is also required in your Major, and a gpa of 2.00 is required in your General Education Requirements.

Bachelor of Science Chemistry, Secondary Teaching

Code	Title	Hours
Chemistry Requirements		
CHEM 115	General Chemistry I	5
CHEM 116	General Chemistry II	5
CHEM 225	Organic Chemistry I	4
CHEM 231	Quantitative Analysis	4
CHEM 261	Inorganic Chemistry	4
CHEM 326	Organic Chemistry II	4
CHEM 332	Instrumental Analysis	4
CHEM 351	Introductory Biochemistry	4
CHEM 361	Physical Chemistry I	4
CHEM 362	Physical Chemistry II	3
CHEM 363	Phy Chem Lab:Kinetic/Reac Dy	1
CHEM 395	Junior Seminar	1
CHEM 499	Senior Seminar	1

Required for American Chemical Society Certified Degree

Select CHEM Elective 300 or higher ¹		
CHEM 495	Senior Laboratory Research ¹	

Methods Course

EDUC 443	Science Meth Secondary Teacher	3
or EDUC 453	Dir St Science Meth Sec Teach	

Support Courses

MATH 151	Calculus I	4
MATH 152	Calculus II	4
BUSN 211	Business Statistics	3
or MATH 207	Prin of Statistical Methods	
PHYS 221	Principles of Physics I	4
or PHYS 231	Appl Phys Engineer/Scientist I	
PHYS 222	Principles of Physics II	4

or PHYS 232 App Phy Engineer Scientist II

Total Hours **66**

¹ For American Chemical Society certified degree, additionally required (total lab hours must be at least 400 hours). See Department Chair for special rules regarding ACS certification.

Professional Education Requirements and Education Cognates– see Secondary Education.

Approved Teaching Minor Recommended – see Secondary Education.

General Education: All LSSU bachelor's degree candidates must complete the LSSU General Education Requirements.

A minimum of 124 credits (at the 100 level or higher) must be earned for graduation with a cumulative gpa of 2.70 or higher. A gpa of 2.70 or higher is also required in your Major, and a gpa of 2.00 or higher is required in your General Education Requirements.