



Chemistry

College of Arts and Sciences

Degree Options

Bachelor of Science in Chemistry
Professional Chemistry

Materials Chemistry

Bachelor of Arts in Chemistry
Standard Option

Teacher Preparation

Program Strengths

- Faculty publish their research in journals and attract more than \$6 million in external funding each year.
- Learn from a faculty of recognized scientists who provide opportunities for students to conduct independent research and present work at national meetings. Bachelor of Science Chemistry majors are required to participate in research.
- WSU's Chemistry Department is a premier research programs in Nuclear and Radiochemistry.
- The department has produced several winners of the prestigious national Goldwater Scholarship.
- Graduates have a high success rate in obtaining employment or being accepted into prestigious graduate and professional schools.
- The department is nationally known for its excellent undergraduate preparation and state-of-the-art lab facilities.
- Students can join a math, science, and engineering residence hall and share classes with neighbors, study together, and use the hall's computer lab.
- The Chemistry Learning Center is located on the third floor of Troy Hall.

Student Club

Chemistry Club

Admission to the Major Requirements

Students may be admitted as Chemistry majors upon declaring their intent to the department.

Suggested Classes for Freshmen

Chem 105: Principles of Chemistry I

Chem 106: Principles of Chemistry II

Suggested Classes for Transfer Students

If transferring in as a junior (two years of CC):

One year (3 terms) organic chemistry

One year (3 terms) calculus-based physics and multi-variable calculus (equivalent of Math 273)

If transferring in after freshman year (one year of CC):

One year (3 terms) of general chemistry

At least the equivalent of Math 171

Math Requirement

Math 171: Calculus I (BS & BA)

Math 172: Calculus II (BS)

Math 273: Calculus III (BS)

Math 220: Introductory Linear Algebra (BS)

Career Options

- Medical professions
- Science teaching
- Chemical engineering
- Industrial research and development
- Research chemistry
- Industrial sales, marketing, and technical service
- Government laboratory chemistry
- Forensic science
- Science writing
- Medical and pharmaceutical sales and research



Core Courses BA & BS

Chem 105, 106: Principles of Chemistry I & II
Chem 220, 222: Quantitative Analysis & Lab
Chem 345, 348: Organic Chemistry I, II & Lab
Chem 370: Chemical Biology
Chem 398: Undergraduate Seminar
Chem 485: Senior Thesis in Chemistry

BA Degree Courses

Chem 301: Descriptive Inorganic Chemistry
Chem 338: Physical Chemistry for Chemical Biology
5 Credits of 300 or 400 level course work from BS Courses
Biology 106: Introductory Biology: Organismal Biology
Biology 107: Introductory Biology: Cell Biology & Genetics
Stat 212: Introduction to Statistical Methods
Physics 101/111, 102/112: General Physics I & II

BS Degree Courses

Chem 330: Problem Solving in Physical Chemistry
Chem 331, 333: Physical Chemistry: Thermodynamics & Lab
Chem 332, 334: Physical Chemistry: Quantum Mechanics & Lab
Chem 347: Organic Qualitative Analysis Laboratory
Chem 425, 426: Quantitative Instrumental Analysis & Lab
Chem 401: Modern Inorganic Chemistry

Chem 410: Advanced Synthesis and Characterization

Chem 495: Directed Research

Chem 499: Special Problems

Biology 102: General Biology

OR

Biology 106: Introductory Biology: Organismal Biology

OR

Biology 107: Introductory Biology: Cell Biology and Genetics

Physics 201/211, 202/212: Physics for Scientists and Engineers I & II

For more information:

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Notes: