B.S. in Chemistry
Ignite your future!

Chemistry Department Full-time Faculty
Andreas Gebauer, Associate Professor and Department Chair
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Carl R. Kemnitz, Professor and Interim AVP Academic Programs
Tiffany L. Pawluk, Lecturer
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Laura Serbulea, Lecturer
Danielle Solano, Assistant Professor

Career Opportunities In Chemistry
Most graduates with a B.S. degree in Chemistry go on to graduate school or pursue successful careers in a wide range of venues such as academia, industry, or government. These include:

• Biochemistry
• Chemical Engineering
• Education
• Medicine
• Dentistry
• Veterinary Medicine
• Pharmacology
• Chiropractic Medicine
• Physical Therapy
• Clinical Research
• Environmental Protection
• Instrumentation
• Forensic Chemistry
• Petroleum
Bachelor of Science (B.S.) in Chemistry | Course requirements

B.S. in Chemistry with ACS Certification

This program meets the requirements set forth by the American Chemical Society (ACS) for completing the B.S. degree in Chemistry.

1. A minimum of 70 units in Chemistry:
   - CHEM 211 General Chemistry I
   - CHEM 212 General Chemistry II
   - CHEM 213 General Chemistry III
   - CHEM 331 Organic Chemistry I
   - CHEM 332 Organic Chemistry II
   - CHEM 333 Organic Chemistry III
   - CHEM 340 Biochemistry
   - CHEM 350 Quantitative Analysis
   - CHEM 361 Thermodynamics
   - CHEM 362 Kinetics
   - CHEM 363 Quantum Mechanics
   - CHEM 390 Chemical Literature
   - CHEM 451 NMR
   - CHEM 452 Spectroscopy
   - CHEM 453 Separations

2. An additional 6 units of upper division course work selected with the pre-approval of the academic advisor.

3. The following Physics courses:
   - PHYS 201 Newtonian Physics
   - PHYS 202 Maxwellian Physics
   - PHYS 203 Contemporary Physics
   - PHYS 221 Classical Physics I
   - PHYS 222 Classical Physics II
   - PHYS 223 Optics & Modern Physics

4. The following Mathematics courses:
   - MATH 201 Calculus I
   - MATH 202 Calculus II
   - MATH 203 Calculus III
   - MATH 211 Calculus I for Life Sciences
   - MATH 212 Calculus II for Life Sciences

B.S. in Chemistry with concentration in Biochemistry

1. A minimum of 56 units in Chemistry:
   - CHEM 211 Chemistry Principles I
   - CHEM 212 Chemistry Principles II
   - CHEM 213 Chemistry Principles III
   - CHEM 331 Organic Chemistry I
   - CHEM 332 Organic Chemistry II
   - CHEM 333 Organic Chemistry III
   - CHEM 340 Biochemistry
   - CHEM 361 Thermodynamics
   - CHEM 362 Kinetics
   - CHEM 390 Chemical Literature
   - CHEM 490 Senior Seminar

2. Two Biology courses from:
   - BIOL 201 Intro Biology - Cell
   - BIOL 202 Intro Biology - Animals or
   - BIOL 203 Intro Biology - Plants

3. Additional 13 units (three courses) of upper division course work selected from Chemistry and/or Biology.

4. The following Physics courses:
   - PHYS 201 Newtonian Physics
   - PHYS 202 Maxwellian Physics
   - PHYS 203 Contemporary Physics
   - PHYS 221 Classical Physics I
   - PHYS 222 Classical Physics II
   - PHYS 223 Optics & Modern Physics

5. The following Mathematics courses:
   - MATH 201 Calculus I
   - MATH 202 Calculus II

6. Optional courses that are often required by professional schools:
   - **Chiropractic, Physical Therapy:**
     - BIOL 357 Human Physiology
     - PSYC 315 Abnormal Psychology
   - **Pharmacy:**
     - CHEM 350 Quantitative Analysis

   BIOL 357 and CHEM 350 could be used to fulfill part of requirement 3. Many medical schools also require at least one biochemistry course. Biochemistry is also a subject area taught at all medical schools during the first year.

B.S. in Chemistry with concentration in Management & Marketing

1. Chemistry Courses (55 units):
   - CHEM 211 General Chemistry I
   - CHEM 212 General Chemistry II
   - CHEM 213 General Chemistry III
   - CHEM 331 Organic Chemistry I
   - CHEM 332 Organic Chemistry II
   - CHEM 350 Quantitative Analysis
   - CHEM 340 Biochemistry
   - CHEM 361 Thermodynamics
   - CHEM 362 Kinetics
   - CHEM 390 Chemical Literature
   - CHEM 490 Senior Seminar
   - MGMT 302 Intro to Operational Management

2. Management and Marketing Concentration (25 units):
   - Required Courses (15 units):
     - MGMT 309 Career & Management Skills
     - MGMT 430 Negotiation, ADR & Conflict Management
   - Elective Courses (10 units):
     - **Management Focus:**
       - MGMT 309 Career & Management Skills
       - MGMT 430 Negotiation, ADR & Conflict Management
     - **Logistics/Operations Focus:**
       - MGMT 302 Intro to Operational Management
       - MKTG 406 Marketing Channels and Logistics
     - **Marketing/Sales Focus:**
       - MKTG 301 Consumer Behavior
       - MKTG 302 Advertising & Public Relations Strategy

3. The following Physics courses:
   - PHYS 201 Newtonian Physics
   - PHYS 202 Maxwellian Physics
   - PHYS 203 Contemporary Physics

4. The following Math courses:
   - MATH 201 Calculus I
   - MATH 202 Calculus II

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