Degree Requirements for the BS in Chemical Physics

The Chemical Physics major leading to a BS degree is offered in conjunction with the Department of Physics and Astronomy. Students take upper-level courses in both chemistry and physics, focusing on the applications of physics to chemical systems. Students majoring in Chemical Physics must complete the following courses:

General Chemistry:
- CHEM 151 Honors Chemistry I or CHEM 121 General Chemistry I
- CHEM 152 Honors Chemistry II or CHEM 122 General Chemistry II

Chemistry:
- CHEM 211 Organic Chemistry I
- CHEM 310 Physical Chemistry
- CHEM 360 Inorganic Chemistry
- CHEM 420 Classical and Statistical Thermodynamics or PHYS 425 Statistical and Thermal Physics

Physics:
- PHYS 101 or 111 Mechanics (with lab)
- PHYS 102 or 112 Electricity and Magnetism (with lab)
- PHYS 201 Waves and Optics
- PHYS 202 Modern Physics
- PHYS 231 Elementary Physics Laboratory II
- PHYS 301 Intermediate Mechanics
- PHYS 302 Intermediate Electrodynamics
- PHYS 311 Introduction to Quantum Physics I
- PHYS 312 Introduction to Quantum Physics II or CHEM 430 Quantum Chemistry

Mathematics*:
- MATH 101 Single Variable Calculus I
- MATH 102 Single Variable Calculus II
- MATH 211 Ordinary Differential Equations and Linear Algebra or MATH 221 Honors Calculus III
- MATH 212 Multivariable Calculus or MATH 222 Honors Calculus IV

Introductory Laboratory Modules:
- CHEM 231 or CHEM 351 Introductory Module in Inorganic Chemistry
- CHEM 232 or CHEM 352 Introductory Module in Organic Chemistry
- CHEM 353 Introductory Module in Analytical Methods

Six additional credit hours from*:
- CHEM 215 Organic Chemistry Laboratory
- CHEM 231 Introductory Module in Inorganic Chemistry
- CHEM 232 Introductory Module in Organic Chemistry
- CHEM 353 Introductory Module in Analytical Methods
- CHEM 372–395 Advanced Module
- PHYS 331 Junior Physics Laboratory I
- PHYS 332 Junior Physics Laboratory II
- Up to two hours of CHEM 491 Research for Undergraduates or PHYS 491/ PHYS 492 Undergraduate Research may be counted toward this requirement

*Select which courses you have chosen to track your progress.

Six credit hours of Math or CAAM courses at or above the 300 level:
- Course number and name
- Course number and name
- Course number and name