

# I want to be a chemistry major! What courses do I need?

## START HERE! Required Courses

CHEM 121-122 (Principles of Chemistry I and II) with labs  
CHEM 221-222 (Organic Chemistry I and II) with labs  
Either CHEM 311 (Thermodynamics) or CHEM 312 (Quantum Chemistry)\*  
CHEM 332 (Analytical Chemistry)  
CHEM 324 (Biochemistry)  
CHEM 342 (Bio-Inorganic Chemistry)  
CHEM 361-362 (Advanced Lab I and II)

**Supporting Courses**  
PHYS 121/122 with labs and  
MATH 131/132 or 133

Chemistry research  
(CHEM 485) is encouraged!  
*Ask your adviser about options.*

## Interested in Biological Chemistry? B.S. Degree with a Concentration in Biochemistry

CHEM 311 (Thermodynamics)  
CHEM 424 (Advanced Biochemistry)

You will also need BIO 155/157 (Foundation courses), and an upper division BIO courses (such as Genetics, Physiology, or Microbiology).

## Chemistry and a Job? B.S. Chemistry Degree

One from the following that has not already been taken:  
CHEM 311 (Thermodynamics)  
CHEM 312 (Quantum Chemistry)\*  
CHEM 424 (Advanced Biochemistry)  
CHEM 431 (Advanced Inorganic Chemistry)†

## Chemical Engineering? B.S. Chemistry Degree

CHEM 312 (Quantum Chemistry)\*  
  
ND courses that count for CHEM 311:  
CBE 20260 (Thermodynamics I)  
CBE 30367 (Thermodynamics II)

Specific courses may be recommended.  
Consult with the Saint Mary's Engineering Program Director

## Want to Teach High School? Double Major in Chemistry and Secondary Education

One from the following that has not already been taken:  
CHEM 311 (Thermodynamics)  
CHEM 312 (Quantum Chemistry)\*  
CHEM 431 (Advanced Inorganic Chemistry)†  
CHEM 424 (Advanced Biochemistry)

You will also need ENVS 171 (Introduction to Environmental Science) and your education courses. Second semester your senior year is all student teaching.

## Graduate School Bound? ACS-certified degree

MATH 231 (Calculus III)  
CHEM 312 (Quantum Chemistry)\*  
CHEM 424 (Advanced Biochemistry)  
CHEM 431 (Advanced Inorganic Chemistry)†  
CHEM 485 - Research

## What else?

Forensic Science, Law School,  
Pharmacy School, etc...

**See your adviser!**

\*CHEM 312 has a pre-req of MATH 231 (Calculus III)

†CHEM 431 has a pre- or co-req of CHEM 312