

## Chemistry BS / Accelerated 3-Year Plan (Sample)

This academic map is a sample 3-year schedule to complete your major in an accelerated format. \*This map assumes students have Advanced or AP Credit for Chem 1111 and Math placement into MATH 1800.

This map is not a substitute for academic advisement. Contact your advisor when making final selections.

**Courses in red text should be taken in the semester shown. This will help you graduate on time.**

\* Recommended course to fulfill elective requirement. You may choose a different course as you prefer.

# 1

### Fall Year 1

**CHEM 1121: Introductory Chemistry II**  
**MATH 1800: Analyt. Geom & Calculus I**  
**ENGL 1100: First-Year Writing**  
**INTDSC 1003: First-Year Experience**  
**CHEM 1000: Chem., the Central Science**

15 Total Credit Hours

### Spring Year 1

**CHEM 2612: Organic Chemistry I**  
**MATH 1900: Analyt. Geom & Calculus II**  
**PHYSICS 2111: Phys: Mechanics & Heat**

15 Total Credit Hours

### Summer Year 1

GEN ED: Social Sciences\*  
 GEN ED: Humanities and Fine Arts\*  
 Cultural Diversity Requirement  
 HIST 1001: American Civ before 1865  
 Elective\*

15 Total Credit Hours

# 2

### Fall Year 2

**CHEM 3312: Physical Chemistry I**  
**CHEM 2622: Organic Chemistry II**  
**MATH 2000: Analyt. Geom & Calc III**  
**CHEM 2223: Quant. Analysis in Chem.**  
 Elective

17 Total Credit Hours

### Spring Year 2

**CHEM 3322: Physical Chemistry II**  
**CHEM 3333: Physical Chemistry Lab I**  
**CHEM 2633: Organic Chemistry Lab**  
**CHEM 4612: Intro to Macromolecular, Supramolecular, and Nanoscale Chem**  
**CHEM 3412: Basic Inorganic Chemistry**  
 ENGL 3100: Junior-Level Writing  
 Elective

17 Total Credit Hours

### Summer Year 2

GEN ED: Social Science\*  
 GEN ED: Social Science\*  
 GEN ED: Communication Proficiency\*  
 GEN ED: Humanities and Fine Arts\*

12 Total Credit Hours

# 3

### Fall Year 3

**CHEM 4212: Instrumental Analysis**  
**CHEM 3643: Adv. Organic Chem Lab**  
**CHEM 3022: Intro to Chemical Lit**  
**CHEM 4343: Physical Chem Lab II**  
**CHEM 3905: Chemical Research**

15 Total Credit Hours

### Spring Year 3

**CHEM 4433: Inorganic Chemistry Lab**  
**CHEM 4233: Lab in Instrumental Analys.**  
**CHEM 3905: Chemical Research**  
**CHEM 4897: Seminar in Chemistry**  
 PHYSICS 2112: Electricity, Magnetism, and Optics  
 Elective\*

15 Total Credit Hours



**Degree Complete!**



**\*Control the pace** by taking courses in the two-week January term or as Advanced Credit (ACP) courses in high school to lighten the load.

## CAREER OUTLOOK



Our graduates are heavily recruited by the chemical and life sciences industry. Our alumni have led innovation at large companies in the St. Louis region. Our graduates are regularly accepted into many of the top 20 chemistry graduate programs and into medical or dental schools. Still others have forged their own way in business and law. This breadth reflects the value of chemistry training in a wide array of professional settings.

### Example Career Pathways

- Research & Development
- Applied Research and Product Development
- Cheminformatics
- Chemical Engineering
- Chemical Technology
- Crystallography
- Dyes, Pigments and Inks
- Industrial Management
- Laboratory Management
- Project Management

## SKILLS

- Understand essential principles of the foundational areas of chemistry and apply them to solve chemical problems
- Employ investigative and quantitative methods for chemistry research
- Critically evaluate existing scientific studies
- Design studies to test hypotheses addressing unsolved problems in chemistry
- Know scientific software, and statistical and regression analysis
- Perform and document laboratory experiments
- Work independently or as part of a small team
- Identify the need for, gather and analyze information



## TAKE THE NEXT STEP

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