

CHEMISTRY PROGRAM

OVERVIEW OF THE PROGRAM:

The mission of the Chemistry Program at Fairmont State University is to help students learn chemistry, make connections to other sciences, and prepare for professional fields including medicine, pharmacy and engineering. We support students in developing the analytical, problem solving and teamwork skills necessary to successfully pursue chemistry and other science-based careers through our small class sizes, innovative teaching approaches and access to research-quality instrumentation. Undergraduate research opportunities are available and strongly encouraged. Many of our students are first generation to college, and our students develop strong mentoring relationships with faculty and peers. Programs available for students who wish to specialize in chemistry include a B.S. degree in chemistry (American Chemical Society approved) and a B.A. in education with a chemistry teaching field. A chemistry minor is also available.

EMPLOYMENT OPPORTUNITIES:

A student completing the B.S. degree with a major in chemistry will be competitive for graduate study in chemistry or chemical engineering, and laboratory positions in the chemical, pharmaceutical industry, government agencies, or law school. Students completing a B.S. degree in chemistry along with a few additional requirements will be prepared for application to a variety of professional and graduate schools, including medical school, dental school, veterinary school, pharmacy school, physical and occupational therapy programs, toxicology, pharmaceutical science and forensic science graduate programs. Fairmont State chemistry graduates have been accepted to chemistry graduate programs and professional programs at schools such as Johns Hopkins, Penn State, West Virginia University, Marshall University, WV School of Osteopathic Medicine, University of North Carolina at Chapel Hill, Texas A&M, and Georgia Tech, and have found employment as chemical professionals at institutions such as Dupont/Chemours, Mylan/Viatris, NIOSH (National Institutes of Occupational Safety and Health), Dow Chemical, Stockmeier Polyurethanes, and environmental testing laboratories.

The annual median wage for a Chemist is \$80,670.00.



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College of Science & Technology

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BACHELOR OF SCIENCE IN CHEMISTRY

- Math ACT requirements may be satisfied by SAT, Compass or Accuplacer score equivalents, per Fairmont State University policy found in the Academic Catalog.
- Please talk to a chemistry faculty advisor as soon as possible. We can provide much more specific advice.

MODEL SCHEDULE - ENTERING IN AN ODD YEAR

FRESHMAN FIRST SEMESTER	
ENGL 1101 WRITTEN ENGLISH I	3
MATH 1530 ALGEBRA	3
CHEM 1105 CHEMICAL PRINCIPLES	5
SOAR 1100 FIRST YEAR SEMINAR	1
CORE CURRICULUM	3

TOTAL 15

FRESHMAN SECOND SEMESTER	
ENGL 1102 WRITTEN ENGLISH II	3
CHEM 2200 FOUNDATIONAL BIOCHEMISTRY	4
MATH 1540 TRIGONOMETRY (or higher)	3
CORE CURRICULUM	6

TOTAL 16

SOPHOMORE FIRST SEMESTER	
MATH 2501 CALCULUS I	4
CHEM 2201 ORGANIC CHEMISTRY I	4
PHYS 1101 INTRODUCTION TO PHYSICS I	4
CORE CURRICULUM	3

TOTAL 15

SOPHOMORE SECOND SEMESTER	
PHYS 1102 INTRODUCTION TO PHYSICS II	4
CHEM 2202 ORGANIC CHEMISTRY II	4
MATH 2502 CALCULUS II	4
CORE CURRICULUM	3

TOTAL 15

JUNIOR FIRST SEMESTER	
CHEM 3301 PHYSICAL CHEMISTRY I	4
CORE CURRICULUM/FREE ELECTIVES	12

TOTAL 16

JUNIOR SECOND SEMESTER	
CHEM 2205 ANALYTICAL CHEMISTRY	4
CHEM 4412 PHYSICAL CHEMISTRY II	4
CORE CURRICULUM /FREE ELECTIVES	6

TOTAL 14

SENIOR FIRST SEMESTER	
CHEM 3315 INSTRUMENTAL ANALYSIS	4
CHEM 3304 INORGANIC CHEMISTRY	4
CORE CURRICULUM/FREE ELECTIVES	7

TOTAL 15

SENIOR SECOND SEMESTER	
BIOL 3360 BIOCHEMISTRY	4
CHEM 4404 SYNTHETIC METHODS AND MATERIALS	4
CORE CURRICULUM /FREE ELECTIVES	6

TOTAL 14

MODEL SCHEDULE - ENTERING IN AN EVEN YEAR

FRESHMAN FIRST SEMESTER	
ENGL 1101 WRITTEN ENGLISH I	3
MATH 1530 ALGEBRA	3
CHEM 1105 CHEMICAL PRINCIPLES	5
SOAR 1100 FIRST YEAR SEMINAR	1
CORE CURRICULUM	3

TOTAL 15

FRESHMAN SECOND SEMESTER	
ENGL 1102 WRITTEN ENGLISH II	3
CHEM 2200 FOUNDATIONAL BIOCHEMISTRY	4
MATH 1540 TRIGONOMETRY	3
CORE CURRICULUM	6

TOTAL 16

SOPHOMORE FIRST SEMESTER	
MATH 2501 CALCULUS I	4
CHEM 2201 ORGANIC CHEMISTRY I	4
PHYS 1101 INTRODUCTION TO PHYSICS I	4
CORE CURRICULUM	3

TOTAL 15

SOPHOMORE SECOND SEMESTER	
CHEM 2202 ORGANIC CHEMISTRY II	4
MATH 2502 CALCULUS II	4
PHYS 1102 INTRODUCTION TO PHYSICS II	4
CORE CURRICULUM	3

TOTAL 15

JUNIOR FIRST SEMESTER	
CHEM 3304 INORGANIC CHEMISTRY	4
CORE CURRICULUM/FREE ELECTIVES	12

TOTAL 16

JUNIOR SECOND SEMESTER	
CHEM 2205 ANALYTICAL CHEMISTRY	4
CHEM 4404 SYNTHETIC METHODS AND MATERIALS	4
CORE CURRICULUM/FREE ELECTIVES	6

TOTAL 14

SENIOR FIRST SEMESTER	
CHEM 3301 PHYSICAL CHEMISTRY	4
CHEM 3315 INSTRUMENTAL ANALYSIS	4
CORE CURRICULUM/FREE ELECTIVES	7

TOTAL 15

SENIOR SECOND SEMESTER	
CHEM 4412 PHYSICAL CHEMISTRY II	4
BIOL 3360 BIOCHEMISTRY	4
CORE CURRICULUM/FREE ELECTIVES	6

TOTAL 14



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CONTACT INFORMATION

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