OVERVIEW OF THE PROGRAM:

The mission of the Chemistry Program at Fairmont State University is to educate students about chemistry and its connection to other sciences. We support students in developing the analytical, problem solving and teamwork skills necessary to successfully pursue science-based careers through our small class sizes, innovative teaching approaches and access to research-quality instrumentation.

Programs available for students who wish to specialize in chemistry include a B.S. degree in chemistry, a B.S. degree in chemistry with an emphasis in biotechnology, and a B.A. in education with a chemistry teaching field.

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, laboratory positions in the chemical or pharmaceutical industry or government agencies, or law school. FSU chemistry graduates have been accepted to chemistry graduate programs at schools such as Northwestern, Penn State, West Virginia University, University of North Carolina at Chapel Hill, Texas A&M, Georgia Tech, and Johns Hopkins, and have found employment as chemical professionals at institutions such as Mylan Pharmaceuticals, NIOSH (National Institutes of Occupational Safety and Health), Dupont, Dow Chemical, and environmental testing laboratories. By electing two additional biology classes and/or taking the further steps to complete the biotechnology emphasis, students completing a B.S. degree in chemistry will be prepared for application to a variety of professional and graduate schools, including medical school, dental school, veterinary school, physical therapy programs, toxicology, pharmaceutical science and forensic science graduate programs.

The annual median wage for a Chemist is $72,350.00.

FAIRMONTSTATE.EDU/collegeofscitech
BACHELOR OF SCIENCE IN CHEMISTRY

MODEL SCHEDULE – MATH ACT 21-UP ***

Entering in an ODD year Fall:

FRESHMAN FIRST SEMESTER
CHEM 1105 CHEMICAL PRINCIPLES .............................................. 5
MATH 1530 COLLEGE ALGEBRA (OR HIGHER***) ......................... 3
ENGL 1101 WRITTEN ENGLISH I .................................................. 3
G.S./ELECTIVE ............................................................................... 5

FRESHMAN SECOND SEMESTER
CHEM 2200 FOUNDATIONAL BIOCHEMISTRY .............................. 4
MATH 1540 TRIGONOMETRY (OR HIGHER***) .............................. 3
ENGL 1102 WRITTEN ENGLISH II ................................................. 3
G.S./ELECTIVE ............................................................................ 6

SOPHOMORE FIRST SEMESTER
CHEM 2201 ORGANIC CHEMISTRY I ........................................... 4
MATH 2501 CALCULUS I (OR MATH 1190) .................................... 4
PHYS 1105 PRINCIPLES OF PHYSICS I (OR PHYS 1101) ............. 5
G.S./ELECTIVE ............................................................................ 3

SOPHOMORE SECOND SEMESTER
CHEM 2202 ORGANIC CHEMISTRY II ......................................... 4
PHYS 1106 PRINCIPLES OF PHYSICS II (OR PHYS 1102) .......... 5
MATH 2502 CALCULUS II (OR MATH 3315) .................................. 4
G.S./ELECTIVE ............................................................................ 3

JUNIOR FIRST SEMESTER
CHEM 3301 PHYSICAL CHEMISTRY I ........................................... 4
CHEM 3304 INORGANIC CHEMISTRY ........................................... 4
G.S./ELECTIVE ............................................................................ 6

JUNIOR SECOND SEMESTER
CHEM 2205 ANALYTICAL CHEMISTRY ...................................... 4
CHEM 4412 PHYSICAL CHEMISTRY II ........................................ 4
G.S./ELECTIVE ............................................................................ 3
G.S. .......................................................................................... 3

SENIOR FIRST SEMESTER
CHEM 3315 INSTRUMENTAL ANALYSIS ..................................... 4
CHEM 4404 SYNTHETIC METHODS AND MATERIALS ............. 4
G.S./ELECTIVE ............................................................................ 6
G.S./ELECTIVE ............................................................................ 3
G.S./ELECTIVE ............................................................................ 3

SENIOR SECOND SEMESTER
BIOL 3360 BIOCHEMISTRY ......................................................... 4
G.S./ELECTIVE ............................................................................ 10

Note: Math ACT requirements may be satisfied by SAT, Compass or Accuplacer score equivalents, per Fairmont State University policy found in the Academic Catalog.

Entering in an EVEN year Fall:

FRESHMAN FIRST SEMESTER
CHEM 1105 CHEMICAL PRINCIPLES .............................................. 5
MATH 1530 COLLEGE ALGEBRA (OR HIGHER***) ......................... 3
ENGL 1101 WRITTEN ENGLISH I .................................................. 3
G.S./ELECTIVE ............................................................................ 5

FRESHMAN SECOND SEMESTER
CHEM 2200 FOUNDATIONAL BIOCHEMISTRY .............................. 4
MATH 1540 TRIGONOMETRY (OR HIGHER***) .............................. 3
ENGL 1102 WRITTEN ENGLISH II ................................................. 3
G.S./ELECTIVE ............................................................................ 6

SOPHOMORE FIRST SEMESTER
CHEM 2201 ORGANIC CHEMISTRY I ........................................... 4
CHEM 3304 INORGANIC CHEMISTRY ........................................... 4
MATH 2501 CALCULUS I (OR MATH 1190) .................................... 4
G.S./ELECTIVE ............................................................................ 4

SOPHOMORE SECOND SEMESTER
CHEM 2202 ORGANIC CHEMISTRY II ......................................... 4
MATH 2502 CALCULUS II (OR MATH 3315) .................................. 4
G.S./ELECTIVE ............................................................................ 6

JUNIOR FIRST SEMESTER
CHEM 4404 SYNTHETIC METHODS AND MATERIALS ............. 4
PHYS 1105 PRINCIPLES OF PHYSICS I (OR PHYS 1101) ............. 5
G.S./ELECTIVE ............................................................................ 3
G.S./ELECTIVE ............................................................................ 3

JUNIOR SECOND SEMESTER
CHEM 2205 ANALYTICAL CHEMISTRY ...................................... 4
PHYS 1106 PRINCIPLES OF PHYSICS II (OR PHYS 1102) .......... 5
G.S./ELECTIVE ............................................................................ 3
G.S. .......................................................................................... 3

SENIOR FIRST SEMESTER
CHEM 3301 PHYSICAL CHEMISTRY I ........................................... 4
CHEM 3315 INSTRUMENTAL ANALYSIS ..................................... 4
G.S./ELECTIVE ............................................................................ 6

SENIOR SECOND SEMESTER
CHEM 4412 PHYSICAL CHEMISTRY II ........................................ 4
BIOL 3360 BIOCHEMISTRY ......................................................... 4
G.S./ELECTIVE ............................................................................ 7

Note: Math ACT requirements may be satisfied by SAT, Compass or Accuplacer score equivalents, per Fairmont State University policy found in the Academic Catalog.