



## BACHELOR OF SCIENCE IN CHEMISTRY (Pre-Med & Pre-Pharm OPTION)

First Semester	Hours	Milestone(s)	Milestone Note	Term
CHEM 105 - General Chemistry I	3	Milestone Course	Core course. Prerequisite for CHEM 106	
CHEM 107 - General Chemistry Laboratory I	2	Milestone Course	Core course. Prerequisite for CHEM 108	
ENGL 101 - English Composition I	3			
PYSC 151 or another G ED Social Science ☞	3			
G ED 101 (NSM)	3			
<b>Semester Total</b>	<b>14</b>			

Second Semester	Hours	Milestone(s)	Milestone Note	Term
CHEM 106 - General Chemistry II	3	Milestone Course	Core course. Prerequisite for CHEM 206, CHEM 211	
CHEM 108 - General Chemistry Laboratory II	2	Milestone Course	Core course. Prerequisite for CHEM 207, CHEM 211	
MATH 206 - Analytic Geometry and Calculus I	4	Milestone Course	Prerequisite for CHEM 301	
ENGL 102 or ENGL 112 - English Composition II or Technical Writing	3			
ART 101 or another G ED Arts ☞	3			
<b>Semester Total</b>	<b>15</b>			

Third Semester	Hours	Milestone(s)	Milestone Note	Term
CHEM 205 - Organic Chemistry I	3	Milestone Course	Core course. Prerequisite for CHEM 206	
CHEM 207 - Organic Chemistry Laboratory I	2	Milestone Course	Core course. Prerequisite for CHEM 208	
BIOL 120 - Fundamentals of Biology	4	Milestone Course	Prerequisite for CHEM 331	
PHYS 201 or 231 - Gen Phys I or Phys for Scientists or Engineers I	4	Milestone Course	Prerequisite for CHEM 301	
PHYS 203 - General Physics Laboratory I	1			
COMM 100 or ENGL 201 - Speech Comm or Adv. Effective Comm	3			
<b>Semester Total</b>	<b>17</b>			

Fourth Semester	Hours	Milestone(s)	Milestone Note	Term
CHEM 206 - Organic Chemistry II	3	Milestone Course	Core course. Prerequisite for CHEM 301, CHEM 305, CHEM 331, CHEM 350, CHEM 425, CHEM 429	
CHEM 208 - Organic Chemistry Laboratory II	2	Milestone Course	Core course. Prerequisite for CHEM 301, CHEM 305	
CHEM 202 - Computer Chemistry	2	Milestone Course	Core course. Prerequisite for CHEM 301	
PHYS 202 or 232 - Gen Phys II or Phys for Scientists or Engineers II	4	Milestone Course	Prerequisite for CHEM 302	
PHYS 204 - General Physics Laboratory II	1			
Free Elective	3			
<b>Semester Total</b>	<b>15</b>			

Fifth Semester	Hours	Milestone(s)	Milestone Note	Term
CHEM 211 - Introductory Analytical Chemistry	4	Milestone Course	Core course. Prerequisite for CHEM 416	
CHEM 301 - Physical Chemistry I	3	Milestone Course	Core course. Prerequisite for CHEM 302, CHEM 416, CHEM 425. Pre- or Co-requisite for CHEM 411	
CHEM 303 - Physical Chemistry Laboratory I	2	Milestone Course	Core course. Prerequisite for CHEM 304	
CHEM 350 - Junior Seminar	1	Milestone Course	Prerequisite for CHEM 450	
CHEM 331 - Biochemistry	3	Milestone Course	Core course.	
CHEM 333 - Biochemistry Laboratory	2	Milestone Course	Core course.	
<b>Semester Total</b>	<b>15</b>			

Sixth Semester	Hours	Milestone(s)	Milestone Note	Term
BIOL 331 - Human Anatomy and Physiology	4	Milestone Course		
HHP 157 or another G ED Wellness ☞	2			
PHYS 120 or another G ED Scientific Reasoning ☞	3-4			
Free Elective	3			
POSC 210 or another G ED International Perspectives ☞	3			
<b>Semester Total</b>	<b>15-16</b>			

Seventh Semester	Hours	Milestone(s)	Milestone Note	Term
CHEM 411 - Inorganic Chemistry	3	Milestone Course	Core Course	
CHEM 462 - Directed Student Research	3	Milestone Course	At least 3 hours if Research credit is required of all majors	
BIOL 332 or 341 or 385	4	Milestone Course	332 Human Anatomy and Physiology or 341 Microbiology or 385 Cell Biology	
ENGL 150 or another G ED Humanities ☞	3			
HIST 208 or another G ED History ☞	3			
<b>Semester Total</b>	<b>16</b>			

Eighth Semester	Hours	Milestone(s)	Milestone Note	Term
CHEM 416 - Instrumental Analysis	3	Milestone Course	Core course	
CHEM 418 - Instrumental Analysis Laboratory	2	Milestone Course	Core course	
CHEM 429 - Spectroscopic Methods	3	Milestone Course	Core course	
CHEM 450 - Senior Seminar	1	Milestone Course	Core course	
Free Elective	3-4			
<b>Semester Total</b>	<b>12-13</b>			

☞ See reverse of this page for General Education coursework options

## GENERAL EDUCATION COMPONENT AND COURSEWORK OPTIONS

Courses with a indicate that the course is recommended from a list of courses within a specific General Education Component. Students may choose to take another course within the same General Education Component in place of the recommended course. For descriptions of these courses, consult the online West Virginia State University Catalog.

Some prerequisite requirements are listed in the course schedule; others are at the end of the course descriptions in the University Catalog. Be sure you meet the prerequisites for a particular course before enrolling in the course.

Arts (3 credit hours)	Scientific Reasoning (3-4 credit hours)
ART 101 Studio I - Introduction to Art	BIOL 101 Principles of Biology (4 credits)
ART 101H Studio I – Introduction to Art (Honors)	BIOL 101H Principles of Biology (Honors) (4 credits)
COMM 170 The Art of the Theater	BIOL 108 Environmental Biology (4 credits)
MUSIC 107 Appreciation of Music	BIOL 110 Economic Biology (4 credits)
	BIOL 120 Fundamentals of Biology (4 credits)
International Perspectives (3 credit hours)	Natural Science (3 - 4 credit hours)
COMM 446 International Cinema	CHEM 100 Consumer Chemistry (3 credits)
INTS 210 Introduction to International Perspectives	CHEM 100H Consumer Chemistry (Honors) (3 credits)
INTS 250 Diversity in Africana Studies	CHEM 132 Introductory Environmental Chemistry (3 credits)
ECON 109 Intro to World Economy	PHYS 101 Physical Science Survey I (3 credits)
ENGL 350 World Literature Classical Era	PHYS 102 Physical Science Survey II (4 credits)
ENGL 351 World Literature Modern Era	PHYS 103 Elements of Physical Science (3 credits)
ENGL 440 Interpreting the Holocaust	PHYS 106 Intro. to Physical Geology (4 credits)
FREN 101 Beginning French	PHYS 107 Historical Geology (4 credits)
FREN 102 Elementary French	PHYS 110 Weather and Climate (4 credits)
FREN 205 A View of Changing Culture	PHYS 111 Energy and the Environment (4 credits)
FREN 443 West African Culture	PHYS 120 Astronomy (3 credits) (& (optional) PHYS 121 Astronomy Lab)
GERM 101 Beginning German	PHYS 121 Astronomy Lab (1 credit)
GERM 102 Elementary German	
SPAN 101 Beginning Spanish	BIOL 101 Principles of Biology (4 credits)
SPAN 102 Elementary Spanish	BIOL 101H Principles of Biology (Honors) (4 credits)
SPAN 205 Spain and its Culture	BIOL 108 Environmental Biology (4 credits)
POSC 210 International Relations	BIOL 110 Economic Biology (4 credits)
POSC 415 Arab Middle East	BIOL 120 Fundamentals of Biology (4 credits)
PHIL 308 World Religions	CHEM 100 Consumer Chemistry (3 credits)
EDUC 319 Content Area Literacy	CHEM 100H Consumer Chemistry (Honors) (3 credits)
EDUC 321 Teaching Writing in the Elementary School	CHEM 132 Introductory Environmental Chemistry (3 credits)
	PHYS 101 Physical Science Survey I (3 credits)
	PHYS 102 Physical Science Survey II (4 credits)
	PHYS 103 Elements of Physical Science (3 credits)
	PHYS 106 Intro. to Physical Geology (4 credits)
	PHYS 107 Historical Geology (4 credits)
	PHYS 110 Weather and Climate (4 credits)
	PHYS 111 Energy and the Environment (4 credits)
	PHYS 120 Astronomy (3 credits)
	PHYS 121 Astronomy Lab (1 credit)
History (3 credit hours)	Social Science (3 credit hours)
HIST 201 World History	BA 210 Business Law
HIST 201H World History (Honors)	BA 312 Personal Finance
HIST 202 World History	ECON 101 American Economy
HIST 207 American History to 1865	POSC 100 Introduction to Government and Politics
HIST 208 American History from 1865	POSC 101 American National Government
	POSC 101H American National Government (Honors)
	PSYC 151 General Psychology
	SOC 101 Introduction to Sociology
	SOC 305 Birth Death and Migration
	EDUC 201 Human Growth and Development
Humanities (3 credit hours)	Wellness (2 credit hours)
ART 100 Art Appreciation	HHP 122 Fitness for Living
COMM 140 Film Appreciation	HHP 157 Healthy Living
COMM 140H Film Appreciation (Honors)	HHP 157H Healthy Living (Honors)
ENGL 150 Introduction to Literature	HHP 242 Team Sports II
ENGL 150H Introduction to Literature (Honors)	
MUSC 104 American Music A Panorama	

## Degree Requirements & Graduation

Students are responsible for knowing and fulfilling requirements for graduation. Accordingly, they should carefully read the catalog and curriculum requirements. The University cannot assume responsibility for failure of students to fulfill catalog and curriculum requirements. If questions arise about requirements, students should consult with the appropriate department chair, college dean or the Registrar several semesters prior to graduation. See below listed requirements for Graduation and consult your respective year WVSU Academic Catalog.

1. A cumulative grade point average of 2.0 (i.e., a C average) on all work attempted with the exception of developmental courses and courses with grades of P, K, W, and AUD.
2. A cumulative grade point average of 2.0 in major and minor (if applicable) courses. The department will identify the courses that count toward the major and the major cumulative grade point average.
3. Completion of the total number of hours required in the curriculum elected.
4. The necessary residence requirement for a degree.
5. Payment of all outstanding financial obligations to the University.
6. All grades of I and Q must be satisfied before graduation.