



BACHELOR OF SCIENCE IN MATHEMATICS (APPLIED OPTION)

First Semester	Hours	Milestone(s)	Milestone Note	Term
MATH 206 - Analytic Geometry and Calculus I	4	Milestone Course	Core course. Prerequisite for MATH 207	
ENGL 101 - English Composition I	3			
G ED 101 (NSM)	3			
HHP 157 or another G ED Wellness 🌀	2			
Free Elective	3			
Semester Total	15			

Second Semester	Hours	Milestone(s)	Milestone Note	Term
MATH 207 - Analytic Geometry and Calculus II	4	Milestone Course	Core course. Prerequisite for MATH 208, MATH 307	
CS 101 - Programming Fundamentals	3	Milestone Course	Prerequisite for MATH 205	
ENGL 102 or ENGL 112 - English Composition I or Technical Writing	3			
PSYC 151 or another G ED Social Science 🌀	3			
ART 101 or another G ED Arts 🌀	3			
Semester Total	16			

Third Semester	Hours	Milestone(s)	Milestone Note	Term
MATH 208 - Analytic Geometry and Calculus III	4	Milestone Course	Core course. Prerequisite for MATH 308, MATH 402, MATH 415	
MATH 205 - Discrete Mathematics	3	Milestone Course	Core course.	
COMM 100 - Speech Communication	3			
Free Elective	3			
HIST 201 or another G ED History 🌀	3			
Semester Total	16			

Fourth Semester	Hours	Milestone(s)	Milestone Note	Term
MATH 222 - Elementary Statistics for Math and Natural Science	3	Milestone Course	Core course.	
BIOL 120 - Fundamentals of Biology *	4	Milestone Course	Prerequisite for BIOL 121	
MATH 402 or 415 - Differential Equations I or Differential Equations for Science & Engineering	3-4	Milestone Course	Core course.	
COMM 140 or another G ED Humanities 🌀	3			
Free Elective	3			
Semester Total	15-17			

Fifth Semester	Hours	Milestone(s)	Milestone Note	Term
MATH 307 - Linear Algebra	3	Milestone Course	Core course.	
BIOL 121* or CHEM 105 and CHEM 107**, or PHYS 231** (Science Cognate)	4-5	Milestone Course	*BIOL 121, taken in addition to BIOL 120, satisfies science cognate requirement	
FREN 101 or another G ED International Perspectives 🌀	3			
Free Elective	3			
Free Elective	3			
Semester Total	16-17			

Sixth Semester	Hours	Milestone(s)	Milestone Note	Term
MATH 404 - Numerical Analysis	3	Milestone Course	Core course.	
Math Elective 300/400	3	Milestone Course	Core course.	
BIOL 121* or CHEM 106 and CHEM 108***, or PHYS 232*** (Science Cognate)	4-5	Milestone Course	*BIOL 121, taken in addition to BIOL 120, satisfies science cognate requirement	
PHYS 101 or another G ED Scientific Reasoning 🌀	3-4			
Free Elective	3			
Semester Total	16-18			

Seventh Semester	Hours	Milestone(s)	Milestone Note	Term
Math Elective 300/400	3	Milestone Course	Core course.	
Math Elective 300/400	3	Milestone Course	Core course.	
CHEM 100 or another G ED Natural Science 🌀	3-4			
Free Elective	3			
Free Elective	3			
Semester Total	15-16			

Eighth Semester	Hours	Milestone(s)	Milestone Note	Term
Math 408 - Senior Seminar	2	Milestone Course		
Math Elective 300/400	3			
Free Elective	3			
Free Elective	3			
Free Elective	3			
Semester Total	14			

Science Cognate Choices

BIOLOGY Choice:

- BIO 120 - Fundamentals of Biology
- BIO 121 - Biological Diversity

CHEMISTRY Choice:

- CHEM 105 - General Chemistry I
- CHEM 106 - General Chemistry II
- CHEM 107 - General Chemistry Lab I
- CHEM 108 - General Chemistry Lab II

PHYSICS Choice:

- PHYS 231 - Physics for Scientists and Engineers I
- PHYS 232 - Physics for Scientist and Engineers II

GENERAL EDUCATION COMPONENT AND COURSEWORK OPTIONS

Students in bachelor degree programs must complete the minimum number of hours indicated in each of the General Education components for a total of 35-41 credit hours. Your major field curriculum specifies courses or course categories that you must complete.

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	
SPAN 102 Elementary Spanish	
SPAN 205 Spain and its Culture	
POSC 210 International Relations	
POSC 415 Arab Middle East	
PHIL 308 World Religions	
EDUC 319 Content Area Literacy	
EDUC 321 Teaching Writing in the Elementary School	
History (3 credit hours)	
HIST 201 World History	
HIST 201H World History (Honors)	
HIST 202 World History	
HIST 207 American History to 1865	
HIST 208 American History from 1865	
Humanities (3 credit hours)	
ART 100 Art Appreciation	
COMM 140 Film Appreciation	
COMM 140H Film Appreciation (Honors)	
ENGL 150 Introduction to Literature	
ENGL 150H Introduction to Literature (Honors)	
MUSC 104 American Music A Panorama	
Wellness (2 credit hours)	Social Science (3 credit hours)
HHP 122 Fitness for Living	BA 210 Business Law
HHP 157 Healthy Living	BA 312 Personal Finance
HHP 157H Healthy Living (Honors)	ECON 101 American Economy
HHP 242 Team Sports II	POSC 100 Introduction to Government and Politics
	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

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 WV SU 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.

Comments:
