

MATHEMATICS BA/BS

The Mathematics major is characterized by a balance between theory and application, beginning in the pre-calculus sequence and continuing through to upper division courses. Appropriate technology is integrated at all levels of the curriculum. At the end of the program students are prepared to enter graduate school or business and industry. Students may also complete courses required for secondary teaching certification.

Upon completion of this program, students will be **well-prepared** to:

- Demonstrate the ability to create, formulate, understand, and communicate mathematical conjectures, arguments and proofs;
- Demonstrate the ability to apply precise and logical reasoning to construct multi-step strategies to solve mathematical problems and effectively communicate those solutions;
- Demonstrate the ability to clearly communicate mathematical ideas verbally and in writing; and
- Demonstrate the ability to use numerical and symbolic mathematical software to aid in problem-solving and investigation as well as understand the limitations of such software.

General Education Requirements

Code	Title	Credits
Written Communication		
Select one of the following:		6.00
ENGL-101 & ENGL-102	WRITING AND RHETORIC I and WRITING AND RHETORIC II	
ENGL-109	COLLEGE WRITING AND RESEARCH	
Oral Communication		
Select one from the following:		3.00
COMM-101	FUNDAMENTALS OF ORAL COMMUNICATION	
COMM-203	SMALL GROUP COMMUNICATION	
COMM-204	PUBLIC SPEAKING	
Mathematical Ways of Knowing		
Select one of the following:		3.00-5.00
MATH-143	COLLEGE ALGEBRA	
MATH-147	COLLEGE ALGEBRA AND TRIGONOMETRY	
MATH-170	CALCULUS I	
Humanistic & Artistic Ways of Knowing		
Select one course from two categories:		6.00-8.00
Literature		
ENGL-175	LITERATURE AND IDEAS	
ENGL-257	WORLD CLASSICS	
ENGL-258	INTERNATIONAL LITERATURE	
ENGL-261	MYTHOLOGIES	
Arts		
ART-100	INTRODUCTION TO ART	
HUM-101	THE ART AND HISTORY OF THE MOTION PICTURE	
HUM-150	INTRODUCTION TO THE ARTS	
MUS-101	SURVEY OF MUSIC	
MUS-102	MUSIC IN AMERICA	
MUS-150	WORLD MUSIC	
MUS-151	HISTORY OF MUSICAL THEATER	
THEA-101	SURVEY OF THE THEATER	
Language		
NP-101	ELEMENTARY NEZ PERCE LANGUAGE I	
NP-102	ELEMENTARY NEZ PERCE LANGUAGE II	
SPAN-101	ELEMENTARY SPANISH I	
SPAN-102	ELEMENTARY SPANISH II	
Scientific Ways of Knowing		

PHYS-211	ENGINEERING PHYSICS I	5.00
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Select one of the following:		3.00-4.00
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BIOF-100	INTRODUCTION TO BIOINFORMATICS
BIOL-100	CONCEPTS OF BIOLOGY
BIOL-120	PLANTS AND PEOPLE
BIOL-123	BIOLOGY IN FILM
BIOL-175	HUMAN BIOLOGY
BIOL-227	HUMAN ANATOMY AND PHYSIOLOGY I
CHEM-100	CONCEPTS OF CHEMISTRY
CHEM-105	GENERAL, ORGANIC AND BIOCHEMISTRY
CHEM-111	PRINCIPLES OF CHEMISTRY I
CS-108	INTRODUCTION TO COMPUTER SCIENCE
FSCI-101	INTRODUCTION TO FORENSIC SCIENCE
GEOL-101	PHYSICAL GEOLOGY
GEOL-120	INTRODUCTION TO EARTH SYSTEMS
GIS-271	GEOGRAPHIC INFORMATION SYSTEMS
ID-240	INTEGRATED SCIENCE II
NS-140	INTEGRATED SCIENCE I
NS-150	INTRODUCTION TO NATURAL SCIENCES ¹
NS-174	NATURAL SCIENCE FOR ELEMENTARY EDUCATOR
PHYS-111	GENERAL PHYSICS I
or PHYS-112	GENERAL PHYSICS II
PHYS-171	PHYS SCIENCES FOR ELEMENTARY EDUCATORS
PHYS-205	DESCRIPTIVE ASTRONOMY

Social & Behavioral Ways of Knowing

Select one course from two disciplines:		6.00
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ANTH-102	CULTURAL ANTHROPOLOGY
ANTH-120	WORLD PREHISTORY
ANTH-170	INTRODUCTION TO NATIVE AMERICAN STUDIES
ECON-201	PRINCIPLES OF MACROECONOMICS
ECON-202	PRINCIPLES OF MICROECONOMICS
GEOG-102	INTRODUCTION TO GEOGRAPHY
HIST-101	WORLD HISTORY I
HIST-102	WORLD HISTORY II
HIST-111	UNITED STATES HISTORY I
HIST-112	UNITED STATES HISTORY II
HRPT-184	DIVERSITY IN ORGANIZATIONS
HRPT-185	HUMAN RELATIONS IN ORGANIZATIONS
POLS-101	AMERICAN NATIONAL GOVERNMENT
POLS-237	INTERNATIONAL POLITICS
POLS-285	COMPARATIVE GOVERNMENT
PSYC-101	INTRODUCTION TO GENERAL PSYCHOLOGY
PSYC-205	LIFESPAN DEVELOPMENTAL PSYCHOLOGY
SOC-101	INTRODUCTION TO SOCIOLOGY
SOC-102	SOCIAL PROBLEMS
SS-184	DIVERSITY IN ORGANIZATIONS
SS-185	HUMAN RELATIONS IN ORGANIZATIONS

Diversity

Select one of the following:		3.00-4.00
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ANTH-102	CULTURAL ANTHROPOLOGY
ANTH-120	WORLD PREHISTORY
ANTH-170	INTRODUCTION TO NATIVE AMERICAN STUDIES

ANTH-360	RACE AND ETHNICITY
COMM-345	COMMUNICATION AND DIVERSITY
ENGL-258	INTERNATIONAL LITERATURE
ENGL-474	NATIVE AMERICAN WRITTEN LITERATURE
GEOG-102	INTRODUCTION TO GEOGRAPHY
HIST-101	WORLD HISTORY I
HIST-102	WORLD HISTORY II
HIST-111	UNITED STATES HISTORY I
HIST-112	UNITED STATES HISTORY II
HRPT-184	DIVERSITY IN ORGANIZATIONS
ID-300C	ETHICS AND IDENTITY
KIN-220	SOCIAL-CULTURAL ASPECTS OF SPORTS
NP-101	ELEMENTARY NEZ PERCE LANGUAGE I
NP-102	ELEMENTARY NEZ PERCE LANGUAGE II
POLS-285	COMPARATIVE GOVERNMENT
SOC-101	INTRODUCTION TO SOCIOLOGY
SPAN-101	ELEMENTARY SPANISH I
SPAN-102	ELEMENTARY SPANISH II
SPAN-201	INTERMEDIATE SPANISH I
SPAN-202	INTERMEDIATE SPANISH II
SS-184	DIVERSITY IN ORGANIZATIONS

Integrative Seminar: Ethics & Values

Select one of the following: 3.00

ID 300A - 300Z (see course descriptions for options)

ID-301A HELLS CANYON INSTITUTE

Foreign/Heritage Language

Select 16 credits of language if selecting Bachelor of Arts Degree 16.00

Total Credits 38.00-44.00

Program Requirements

Code	Title	Credits
Major Courses		
CS-111	FOUNDATIONS OF PROGRAMMING	4.00
MATH-175	CALCULUS II	4.00
MATH-253	STATISTICAL METHODS FOR THE SCIENCES	3.00
MATH-275	CALCULUS III	4.00
MATH-300	INTRODUCTION TO MATHEMATICAL REASONING	3.00
MATH-320	PROBABILITY AND STATISTICS	3.00
MATH-340	LINEAR ALGEBRA	3.00
MATH-460	ABSTRACT ALGEBRA I	3.00
MATH-480	REAL ANALYSIS I	3.00
PHYS-212	ENGINEERING PHYSICS II	5.00
Electives		
Select 9 credits numbered 200 or above		9.00
Select 4 credits of 300/400 level from NS Division		4.00
Select 34 elective credits		34.00
Total Credits		82.00

Sequential Plan of Study

Course	Title	Credits
First Year		
Fall		
CORE	Humanistic & Artistic Ways of Knowing	3.00
CORE	MATH-143, MATH-147 or MATH-170	3.00-5.00
CORE	Oral Communication	3.00
CORE	Social & Behavioral Ways of Knowing	3.00
ENGL-101	WRITING AND RHETORIC I	3.00
Credits		15.00-17.00
Spring		
CORE	Humanistic & Artistic Ways of Knowing	3.00
ENGL-102	WRITING AND RHETORIC II	3.00
MATH-175	CALCULUS II	4.00
Program Requirement	MATH 200/300/400 Level	3.00
Elective	Elective Credits	2.00
Credits		15.00
Second Year		
Fall		
CORE	Social & Behavioral Ways of Knowing	3.00
CS-111	FOUNDATIONS OF PROGRAMMING	4.00
MATH-253	STATISTICAL METHODS FOR THE SCIENCES	3.00
PHYS-211	ENGINEERING PHYSICS I	5.00
Credits		15.00
Spring		
CORE	Scientific Ways of Knowing	3.00
CORE	Diversity	3.00
MATH-275	CALCULUS III	4.00
PHYS-212	ENGINEERING PHYSICS II	5.00
Credits		15.00
Third Year		
Fall		
CORE	Integrative Seminar: Ethics & Values	3.00
MATH-300	INTRODUCTION TO MATHEMATICAL REASONING	3.00
MATH-340	LINEAR ALGEBRA	3.00
Program Requirement	MATH 200/300/400 Level	3.00
Elective	Elective Credits	4.00
Credits		16.00
Spring		
MATH-320	PROBABILITY AND STATISTICS	3.00
Program Requirement	MATH 200/300/400 Level	3.00
Elective	Elective Credits	4.00
Elective	Elective Credits	4.00
Credits		14.00
Fourth Year		
Fall		
MATH-460	ABSTRACT ALGEBRA I	3.00
Program Requirement	NS 300/400 Level	4.00
Elective	Elective Credits	4.00
Elective	Elective Credits	4.00
Credits		15.00

Spring

MATH-480	REAL ANALYSIS I	3.00
Elective	Elective Credits	4.00
Elective	Elective Credits	4.00
Elective	Elective Credits	4.00
Credits		15.00
Total Credits		120.00-122.00

Graduates with a BA/BS in Mathematics go on to obtain careers in a variety of fields:

- Industry
- Market Research
- Education
- Government
- Banking
- Actuarial Science
- Data Science
- Business, Management, Consulting
- Graduate Studies

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