

CYBERSECURITY MANAGEMENT BA/BS

The Cybersecurity Management program is designed to prepare students for industry. The Cybersecurity Management major fuses the three components: a strong cybersecurity management base, computer programming, and business management. The curriculum is designed to be very focused on industry needs and skills. Students take courses in networking, advanced cybersecurity and pentesting.

The goals of the Cybersecurity Management program is to provide students with learning experiences in both the classroom and laboratory so that they will be well-prepared to:

- Design and implement object-oriented and imperative programs
- Understand algorithms and data structures
- Understand relational databases, and network development
- Understand online safety in the context of the wider world
- Understand the different types of malware, including viruses and trojans, network security, and cryptography
- Identity theft and risk management
- Students will explain the concepts, theories, and practices in the functional areas of business
- Students will prepare professional oral and written forms of communication
- Students will evaluate and apply information technology in support of management decision making

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 of 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
CS-108 or CITPT-108	INTRODUCTION TO COMPUTER SCIENCE INTRODUCTION TO COMPUTER SCIENCE	
MATH-123	MATH IN MODERN SOCIETY	
MATH-130	FINITE MATHEMATICS	
MATH-137	ALGEBRA, TRIG AND STAT WITH APPLICATION	
MATH-140	ALGEBRAIC REASONING AND PROBLEM-SOLVING	
MATH-143	PRECALCULUS I: ALGEBRA	
MATH-147	PRECALCULUS	
MATH-153	STATISTICAL REASONING	
MATH-160	BRIEF CALCULUS	
MATH-170	CALCULUS I	
MATH-254	STATISTICAL METHODS	
MATH-257	MATHEMATICS FOR ELEMENTARY TEACHERS II	
MTHPT-130	FINITE MATHEMATICS	
MTHPT-137	MATH FOR TECHNOLOGY	
MTHPT-153	STATISTICAL REASONING	
Humanistic & Artistic Ways of Knowing		
Select two courses from two different categories (Literature, Arts, Language):		6.00-7.00
Literature		
ENGL-175	LITERATURE AND IDEAS	
ENGL-257	WORLD CLASSICS	

ENGL-258	INTERNATIONAL LITERATURE (*)
ENGL-260	NATIVE AMERICAN 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
MUS-152	HISTORY OF JAZZ AND POPULAR MUSIC STYLES
THEA-101	SURVEY OF THE THEATER
Language	
NP-101	NEZ PERCE LANGUAGE AND CULTURE (*)
NP-102	NEZ PERCE LANGUAGE AND HISTORY (*)
SPAN-101	ELEMENTARY SPANISH I (*)
SPAN-102	ELEMENTARY SPANISH II (*)
Scientific Ways of Knowing	
Select two courses from two different disciplines; one course must include a lab:	
7.00-8.00	
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
ENGR-108	SEMICONDUCTORS, SCIENCE, AND SOCIETY
FSCI-101	INTRODUCTION TO FORENSIC SCIENCE
GEOL-101	PHYSICAL GEOLOGY
GEOL-120	INTRODUCTION TO EARTH SYSTEMS
GIS-271	GEOGRAPHIC INFORMATION SYSTEMS
ID-160	WATER AND ENERGY
ID-240	INTEGRATED SCIENCE II
NS-140	INTEGRATED SCIENCE I
NS-150	INTRODUCTION TO NATURAL SCIENCES
NS-174	NATURAL SCIENCE FOR ELEMENTARY EDUCATOR
PHYS-111	GENERAL PHYSICS I
PHYS-112	GENERAL PHYSICS II
PHYS-171	PHYS SCIENCES FOR ELEMENTARY EDUCATORS
PHYS-205	DESCRIPTIVE ASTRONOMY
PHYS-211	PHYSICS FOR SCIENTISTS AND ENGINEERS I
Social & Behavioral Ways of Knowing	
Select two courses from two different disciplines:	
6.00	
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 (*)
or SS-184	DIVERSITY IN ORGANIZATIONS
HRPT-185	HUMAN RELATIONS IN ORGANIZATIONS
or SS-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

Global Perspectives

Select one of the following: 3.00-4.00

Courses above designated with an asterisk (*) are eligible to fulfill the Global Perspectives requirement. Please note that an asterisked course may not be used to satisfy more than one core requirement.

ANTH-360	RACE AND ETHNICITY
COMM-345	INTERCULTURAL COMMUNICATION
ENGL-474	NATIVE AMERICAN WRITTEN LITERATURE
ID-300C	ETHICS AND IDENTITY
KIN-220	SOCIAL-CULTURAL ASPECTS OF SPORTS
SPAN-201	INTERMEDIATE SPANISH I
SPAN-202	INTERMEDIATE SPANISH II

Integrative Seminar: Ethics & Values

Select one of the following: 3.00

ID-300A	ANIMALS AND SOCIETY
ID-300B	ART AND CENSORSHIP
ID-300D	ETHICS AND ECOLOGY
ID-300E	ETHICS AND TECHNOLOGY
ID-300F	GENDER AND CULTURE
ID-300G	HEALTH INTEGRATIVE SEMINAR
ID-300H	LAW AND SOCIETY
ID-300J	TERRORISM CONTEMPORARY ERA
ID-300K	VALUES AND SPORTS
ID-300L	VIETNAM
ID-300M	VULNERABLE POPULATIONS
ID-300N	WILDERNESS
ID-300P	DISEASES AND SOCIETY
ID-300Q	ECONOMICS OF GOOD AND EVIL
ID-300R	LEADERSHIP AND ETHICS
ID-300S	NORTHWEST CULTURE/HISTORY/LITERATURE
ID-300T	PROPAGANDA
ID-300U	WOMEN IN THE 20TH CENTURY
ID-300V	GANDHIAN ETHICS AND VALUES
ID-300W	ETHICS OF FOOD AND AGRICULTURE
ID-300X	ETHICS: CIVIL RIGHTS MOVEMENTS
ID-300Y	SALMON RIVER GEOLOGY, BIOLOGY, HUMAN HISTORY
ID-301A	HELLS CANYON INSTITUTE

Foreign/Heritage Language

Select 16 credits of language if selecting Bachelor of Arts Degree

Total Credits**37.00-42.00**

Program Requirements

Code	Title	Credits
Major Requirements		
CS-111	COMPUTER SCIENCE 1	4.00
CS-211	COMPUTER SCIENCE II	4.00
CS-226	SQL: STRUCTURED QUERY LANGUAGE	3.00
CYB-251	NETWORKING FUNDAMENTALS	3.00
CYB-252	SWITCHING & WIRELESS TECH	3.00
CYB-253	ENTERPRISE NETWORKING & SECURITY	3.00
CYB-254	ETHICAL HACKING	3.00
CYB-271	CYBERSECURITY FUNDAMENTALS	3.00
CYB-272	LINUX SYSTEMS FOR CYBERSECURITY	3.00
CYB-273	PENETRATION TESTING	3.00
CYB-274	LINUX ADMINISTRATION	3.00
WEB-111	FOUNDATIONS OF WEB DEVELOPMENT	3.00
WEB-112	FUND OF PROG: JAVASCRIPT	3.00
Select one of the following:		3.00
ECON/PSYC/SS-300	STATISTICAL METHODS	
Upper Division Requirements		
BUS-311	FOUNDATIONS OF MANAGEMENT THEORY	3.00
BUS-360	LEADERSHIP	3.00
BUS-365	BUSINESS LAW I	3.00
BUS-370	PRODUCTION AND OPERATIONS MANAGEMENT	3.00
CS-311	ALGORITHMS AND DATA STRUCTURES	4.00
CS-480	CAPSTONE DESIGN PROJECT	4.00
CS-494	INTERNSHIP IN COMPUTER SCIENCE	4.00
CYB-300	CYBER ETHICS	3.00
CYB-360	CYBERSECURITY MANAGEMENT	3.00
Electives		9.00
Total Credits		83.00

Sequential Plan of Study

Course	Title	Credits
First Year		
Fall		
CORE	Mathematical Ways of Knowing	3.00
CORE	Oral Communication	3.00
CORE	Scientific Ways of Knowing	3.00
CS-111	COMPUTER SCIENCE 1	4.00
ENGL-101	WRITING AND RHETORIC I	3.00
Credits		16.00
Spring		
CORE	Humanistic & Artistic Ways of Knowing	3.00
CORE	Scientific Ways of Knowing	4.00
CORE	Social & Behavioral Ways of Knowing	3.00
CS-211	COMPUTER SCIENCE II	4.00
ENGL-102	WRITING AND RHETORIC II	3.00
Credits		17.00

Second Year**Fall**

CORE	Global Perspectives	3.00
CS-226	SQL: STRUCTURED QUERY LANGUAGE	3.00
CYB-251	NETWORKING FUNDAMENTALS	3.00
CYB-271	CYBERSECURITY FUNDAMENTALS	3.00
WEB-111	FOUNDATIONS OF WEB DEVELOPMENT	3.00
Credits		15.00

Spring

BUS-311	FOUNDATIONS OF MANAGEMENT THEORY	3.00
CORE	Social & Behavioral Ways of Knowing	3.00
CYB-252	SWITCHING & WIRELESS TECH	3.00
CYB-272	LINUX SYSTEMS FOR CYBERSECURITY	3.00
WEB-112	FUND OF PROG: JAVASCRIPT	3.00
CORE	Humanistic & Artistic Ways of Knowing	3.00
Credits		18.00

Third Year**Fall**

CYB-253	ENTERPRISE NETWORKING & SECURITY	3.00
CYB-273	PENETRATION TESTING	3.00
ECON-300	STATISTICAL METHODS	3.00
BUS-360	LEADERSHIP	3.00
Credits		12.00

Spring

CYB-254	ETHICAL HACKING	3.00
CYB-274	LINUX ADMINISTRATION	3.00
BUS-365	BUSINESS LAW I	3.00
BUS-370	PRODUCTION AND OPERATIONS MANAGEMENT	3.00
Elective	Elective Credits	3.00
Credits		15.00

Fourth Year**Fall**

CORE	Integrative Seminar: Ethics & Values	3.00
CS-311	ALGORITHMS AND DATA STRUCTURES	4.00
CYB-360	CYBERSECURITY MANAGEMENT	3.00
Elective	Elective Credits	3.00
Credits		13.00

Spring

CYB-300	CYBER ETHICS	3.00
CS-480	CAPSTONE DESIGN PROJECT	4.00
CS-494	INTERNSHIP IN COMPUTER SCIENCE	4.00
Elective	Elective Credits	3.00
Credits		14.00

Total Credits	120.00
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Graduates with a BA/BS in Cybersecurity Management go on to obtain careers in a variety of fields:

- Computer Science
- Information Security Analyst
- Cybersecurity Analyst
- Security Assurance Analyst
- Information Security Developer