

Cybersecurity

Program Description:

Build foundational IT skills with focus on network security. Prepare for a career to assess the security needs of computer and network systems. Investigate deviations from acceptable configurations, identify computer and network security vulnerabilities, solve problems, make decisions to recommend the appropriate defensive countermeasures. Implement adequate measures to reduce risks to a level conferring to compliance regulations. Graduates build skills in problem-solving, attention to detail, communication, and teamwork. Note: Students must possess basic keyboarding/word processing skills prior to enrollment in the program.

For program costs and fees refer to the catalog TUITION AND FEES PAGE.

Program Learning Outcomes:

1. Communicate effectively with diverse audiences across all levels and demonstrate an understanding of the value of diversity and community.
2. Demonstrate critical thinking to support integrity, confidentiality, availability of data and information.
3. Communicate an understanding of professional and ethical responsibility as it relates to legal liability in information technology and business.
4. Identify governance, risk, and compliance.
5. Collect and analyze data from a variety of sources to identify and report events that occur or might occur within the network to protect data information systems and networks from vulnerabilities and threats.
6. Investigate deviations from acceptable configurations, identify security vulnerabilities, solve problems, make decisions to recommend appropriate defensive countermeasures.
7. Demonstrate technical proficiency with procedures to operate more securely, efficiently, and effectively using decision-making strategies to understand the needs and limitations of business and information technology.
8. Prepare for industry certification exams.

Cybersecurity AAS (105 credits)

Required Courses

Quarter 1	CYBR101	Security Professional Practices	5
	CYBR102	Operating System Fundamentals	5
	CYBR104	IT Systems I	5
Quarter 2	CYBR105	IT Systems II	5
	CYBR106	Virtual Computing	5
	CYBR107	Network Fundamentals I	5
Quarter 3	CYBR108	Network Fundamentals II	5
	CYBR109	Windows Server Administration	5

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	CYBR203	Advanced Operating Systems I	5	
Quarter 4	CYBR103	Database / SQL Fundamentals	5	
	CYBR201	Information Security I		
	CYBR204	Advanced Operating Systems II	5	listed 2x in previous catalog
Quarter 5	CYBR202	Information Security II	5	
	CYBR205	Mobile / Wireless Security	5	
	CYBR206	Attack Vectors	5	
Quarter 6	CYBR207	Network Attack Mitigation / Defense	5	
	CYBR208	Network Scripting	5	
	CYBR292	Independent Project Prior Coursework	5	

General Education Requirements

Communications 5 credits required

ENGL175

ENGL&101 ENGLISH COMPOSITION I

Humanities/Social Sciences/Natural Sciences/Other 5 credits required

BIOL&160 GENERAL BIOLOGY

BIOL&175 HUMAN BIOLOGY WITH LAB

BIOL&241 ANATOMY & PHYSIOLOGY I

BIOL&242 HUMAN A&P II

BIOL&260 MICROBIOLOGY

CHEM&121 INTRODUCTION CHEMISTRY

CHEM&131 INTRODUCTION TO ORGANIC/BIOCHEMISTRY

CMST&102 INTRO TO MASS MEDIA

CMST&152 INTERCULTURAL COMMUNICATION

CMST&210 INTERPERSONAL COMMUNICATION

CMST&220 PUBLIC SPEAKING

ECON&201 MICROECONOMICS

NUTR&101 INTRO TO NUTRITION

POLS&101 INTRO TO POLITICAL SCIENCE

PSYC&100 GENERAL PSYCHOLOGY

PSYC&200 LIFESPAN PSYCHOLOGY

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	SOC&101	INTRO TO SOCIOLOGY	
Quantitative			5 credits required
	MATH172	APPLIED BUSINESS MATH	
	MATH&141	PRECALCULUS I	
	MATH&142	PRECALCULUS II	
	MATH&146	INTRODUCTION TO STATISTICS	
	MATH&151	CALUCCLUS I	
	MATH&152	CALCULUS II	

Note: See a Career Advisor prior to choosing courses that meet general education requirements.

Cybersecurity AAS-T (115 credits)

Required Courses

Quarter 1	CYBR101	Security Professional Practices	5
	CYBR102	Operating System Fundamentals	5
	CYBR104	IT Systems I	5
Quarter 2	CYBR105	IT Systems II	5
	CYBR106	Virtual Computing	5
	CYBR107	Network Fundamentals I	5
Quarter 3	CYBR108	Network Fundamentals II	5
	CYBR109	Windows Server Administration	5
	CYBR203	Advanced Operating Systems I	5
Quarter 4	CYBR103	Database / SQL Fundamentals	5
	CYBR201	Information Security I	5
	CYBR204	Advanced Operating Systems II	5
Quarter 5	CYBR202	Information Security II	5
	CYBR205	Mobile / Wireless Security	5
	CYBR206	Attack Vectors	5
Quarter 6	CYBR207	Network Attack Mitigation / Defense	5
	CYBR208	Network Scripting	5
	CYBR292	Independent Project Prior Coursework	5

General Education Requirements

Communications		5 credits required
	ENGL175	

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	ENGL&101	ENGLISH COMPOSITION I	
Humanities/Social Sciences/Natural Sciences/Other			5 credits required
	BIOL&160	GENERAL BIOLOGY	
	BIOL&175	HUMAN BIOLOGY WITH LAB	
	BIOL&241	ANATOMY & PHYSIOLOGY I	
	BIOL&242	HUMAN A&P II	
	BIOL&260	MICROBIOLOGY	
	CHEM&121	INTRODUCTION CHEMISTRY	
	CHEM&131	INTRODUCTION TO ORGANIC/BIOCHEMISTRY	
	CMST&102	INTRO TO MASS MEDIA	
	CMST&152	INTERCULTURAL COMMUNICATION	
	CMST&210	INTERPERSONAL COMMUNICATION	
	CMST&220	PUBLIC SPEAKING	
	ECON&201	MICROECONOMICS	
	NUTR&101	INTRO TO NUTRITION	
	POLS&101	INTRO TO POLITICAL SCIENCE	
	PSYC&100	GENERAL PSYCHOLOGY	
	PSYC&200	LIFESPAN PSYCHOLOGY	
	SOC&101	INTRO TO SOCIOLOGY	
Quantitative			5 credits required
	MATH172	APPLIED BUSINESS MATH	
	MATH&141	PRECALCULUS I	
	MATH&142	PRECALCULUS II	
	MATH&146	INTRODUCTION TO STATISTICS	
	MATH&151	CALUCLUS I	
	MATH&152	CALCULUS II	

Note: See a Career Advisor prior to choosing courses that meet general education requirements.

Network System Support Certificate of Competency (60 credits)

Required Courses

Quarter 1	CYBR101	Security Professional Practices	5
	CYBR102	Operating System Fundamentals	5
	CYBR104	IT Systems I	5

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Quarter 2	CYBR105	IT Systems II	5
	CYBR106	Virtual Computing	5
	CYBR107	Network Fundamentals I	5
Quarter 3	CYBR108	Network Fundamentals II	5
	CYBR109	Windows Server Administration	5
	CYBR203	Advanced Operating Systems I	5

General Education Requirements

Communications 5 credits required

ENGL175

ENGL&101 ENGLISH COMPOSITION I

Humanities/Social Sciences/Natural Sciences/Other 5 credits required

BIOL&160 GENERAL BIOLOGY

BIOL&175 HUMAN BIOLOGY WITH LAB

BIOL&241 ANATOMY & PHYSIOLOGY I

BIOL&242 HUMAN A&P II

BIOL&260 MICROBIOLOGY

CHEM&121 INTRODUCTION CHEMISTRY

CHEM&131 INTRODUCTION TO ORGANIC/BIOCHEMISTRY

CMST&102 INTRO TO MASS MEDIA

CMST&152 INTERCULTURAL COMMUNICATION

CMST&210 INTERPERSONAL COMMUNICATION

CMST&220 PUBLIC SPEAKING

ECON&201 MICROECONOMICS

NUTR&101 INTRO TO NUTRITION

POLS&101 INTRO TO POLITICAL SCIENCE

PSYC&100 GENERAL PSYCHOLOGY

PSYC&200 LIFESPAN PSYCHOLOGY

SOC&101 INTRO TO SOCIOLOGY

Quantitative 5 credits required

MATH172 APPLIED BUSINESS MATH

MATH&141 PRECALCULUS I

MATH&142 PRECALCULUS II

MATH&146 INTRODUCTION TO STATISTICS

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MATH&151 CALUCLUS I

MATH&152 CALCULUS II

Note: See a Career Advisor prior to choosing courses that meet general education requirements.

Computer Support Certificate of Training (45 credits) previously listed as 30 credits + general education courses (15 credits) not included previously (60 credits total)

Required Courses

Quarter 1	CYBR101	Security Professional Practices	5
	CYBR102	Operating System Fundamentals	5
	CYBR104	IT Systems I	5
Quarter 2	CYBR105	IT Systems II	5
	CYBR106	Virtual Computing	5
	CYBR107	Network Fundamentals I	5
Quarter 3	CYBR108	Network Fundamentals II	5
	CYBR109	Windows Server Administration	5
	CYBR203	Advanced Operating Systems I	5