

COMPUTER NETWORKS AND CYBERSECURITY, BS

The Bachelor of Science in Computer Networks and Cybersecurity degree is designed for students to enhance their theoretical, analytical, and practical skills through a solid foundation in computing, networks, and cybersecurity. The courses in this degree program help students develop the teambuilding, communication, critical-thinking, and technical skills required to keep current with the rapid advances in technology. Our students are taught by IT leaders, including former CIOs, network analysts, and database administrators. Students who complete their Bachelor's degree in Computer Networks and Cybersecurity will have the practical and theoretical knowledge necessary for employment in network design and administration, cybersecurity, computer forensics, and more.

The program level objectives for students completing the BS in Computer Networks and Cybersecurity are as follows:

- To build and strengthen students' competencies, qualifications and marketability in four (4) areas:
 - Technical / Practical Skills
 - Business / Soft Skills
 - Industry Training / Experience
 - Certification Preparation
- To cultivate problem-solving and critical thinking skills to solve complex computing problems through identification, assessment and evaluation of networks and security of business systems; effectively design, develop and implement well-secured systems
- To promote students' leadership and decision-making skills; and ability to work with others to function effectively as business network and cybersecurity solution providers
- To strengthen students' awareness in conducting themselves in a manner that is professional ethical, and social
- To adequately prepare students for rewarding careers in computer networks and cybersecurity related fields

Requirements

Code	Title	Credits
IT-100	Introduction to Information Technology	3
IT-120	Computer Hardware	3
IT-126	Computer Software	3
IT-135	CCNA I: Introduction to Networks	3
IT-235	CCNA II: Switching, Routing & Wireless Essentials	3
IT-275	Networking in a Windows Environment	3
IT-335	CCNA III: Enterprise Network, Security and Automation	3
IT-373	Network Security	3
IT-376	Wireless Technology	3
IT-390	Internship Seminar I	3
IT-445	CCNA Cyber Ops	3
IT-495	Senior Seminar	3
Major Area Electives, Open Electives, or Minor Courses		21
Major-Related Courses Subtotal		57
General Education and Related Courses		

LA-122 or LA-205	Fundamentals of Communication Professional Communication	3
MA-115	Quantitative Reasoning	3
MA-120	Finite Mathematics & Linear Modeling	3
MA-142 or MA-235	Precalculus Statistics for Business Decisions I	3
IT-160	Programming Logic	3
IT-295	Systems Analysis & Design	3
IT-320	Operating Systems	3
IT-387	Ethical Hacking	3
IT-455	Security Strategies in Windows Platforms and Applications	3
IT-477	Network and Computer Forensics	3
IT-494	IT Project Management	3
English Credits		12
Liberal Arts Electives (including IT-Liberal Arts Courses)		18
General Education and Related Courses Subtotal		63
Total Credits		120

Recommended Sequence

Course	Title	Credits
Semester 1		
IT-100	Introduction to Information Technology	3
LA-ELE	Liberal Arts Elective	3
EN-111	College Writing and Critical Analysis	3
LA-122	Fundamentals of Communication	3
MA-115	Quantitative Reasoning	3
Credits		15
Semester 2		
IT-120	Computer Hardware	3
IT-130	Database (Required Elective)	3
IT-135	CCNA I: Introduction to Networks	3
EN-121	Analytical Thinking, Writing & Research	3
MA-120	Finite Mathematics & Linear Modeling	3
Credits		15
Semester 3		
IT-126	Computer Software	3
IT-160	Programming Logic	3
IT-235	CCNA II: Switching, Routing & Wireless Essentials	3
LA-ELE	Liberal Arts Elective	3
EN-206	Professional Writing and Presentation	3
Credits		15
Semester 4		
IT-295	Systems Analysis & Design	3
IT-320	Operating Systems	3
IT-373	Network Security	3
MA-142 or MA-235	Precalculus or Statistics for Business Decisions I	3
LA-ELE	Liberal Arts Elective	3
Credits		15
Semester 5		
IT-335	CCNA III: Enterprise Network, Security and Automation	3
IT-376	Wireless Technology	3
IT-275	Networking in a Windows Environment	3
IT-ELE	IT Elective	3
EN-221 or LA-205	Literary Criticism and Analysis or Professional Communication	3
Credits		15

Semester 6		
IT-387	Ethical Hacking	3
IT-445	CCNA Cyber Ops	3
IT-396	Management Information Systems	3
IT-ELE	IT Elective	3
LA-ELE	Liberal Arts Elective	3
Credits		15
Semester 7		
IT-455	Security Strategies in Windows Platforms and Applications	3
IT-494	IT Project Management	3
IT-ELE	IT Elective	3
IT-ELE	IT Elective	3
IT-390	Internship Seminar I	3
Credits		15
Semester 8		
IT-495	Senior Seminar	3
IT-477	Network and Computer Forensics	3
LA-ELE	Liberal Arts Elective	3
LA-ELE	Liberal Arts Elective	3
LA-ELE	Liberal Arts Elective	3
Credits		15
Total Credits		120

Open Electives should be used for courses in the technology area you would like to concentrate, such as: Networking, Web and Database, Security, or Programming.