

# Associate of Science in Cybersecurity

The Associate of Science in Cybersecurity is designed to advance the student's practical knowledge and skills in the cybersecurity industry, regardless of one's background. Organizations of all sizes face constant cyberthreats and cyberattacks from both internal and external attackers. The cybersecurity associate degree provides a fundamental understanding of cybersecurity theory and know-how often required to implement effective cybersecurity defenses in public and private sectors. Students who complete this associate degree may wish to consider pursuing the University's cybersecurity bachelor's degree for further knowledge and skill.

## Degree Program Objectives

In addition to the institutional and degree level learning objectives, graduates of this program are expected to achieve these learning outcomes:

- Identify common uses of cryptography in creating a secure infrastructure.
- Implement various mitigation strategies to cyber threats and provide security solutions.
- Demonstrate a fundamental knowledge of local and wide area networks.
- Explain legal and ethical issues related to technology implications.

## Degree at a Glance

Code	Title	Semester Hours
	General Education Requirements	30
	Major Required	24
	Final Program Requirement	3
	Elective Requirements	3
	Total Semester Hours	60

## Degree Program Requirements<sup>1</sup>

### General Education Requirements (30 semester hours)

Code	Title	Semester Hours
	<b>Arts and Humanities (6 semester hours)<sup>1</sup></b>	
	Select 2 courses from the following:	6

ARAB100	Arabic I
ARAB101	Arabic II
ARTH200	Art Appreciation
ARTH240	Survey of Photography
ARTH241	Film and Literature
DSIN141	Image Enhancement using Adobe Photoshop®
FREN100	French I
FREN101	French II
GERM100	German I
GERM101	German II
JAPN100	Introduction to Japanese
LITR215	Literature of American Encounters, Revolution, and Rebellion
LITR218	From Abolition to #MeToo: Literature of the American Civil Rights Movement
LITR222	Pivotal Figures in Early British Literature
LITR225	British Literature from Wordsworth through the Wasteland
LITR231	Leadership in World Literature: Antiquity to the Early Modern Period
LITR233	Literature of the Newly Globalized World: The Individual's Struggle to Adapt
MUSI200	Music Appreciation
MUSI212	Jazz and Rock
MUSI250	World Music and Cultures
PHIL101	Introduction to Philosophy
PHIL110	Critical Thinking
PHIL200	Introduction to Ethics
PHIL202	Philosophy of Science
PORT100	Introduction to Brazilian Portuguese
RELS101	Introduction to the Study of Religion
RELS201	Introduction to World Religions
RUSS100	Russian I
SPAN100	Spanish I
SPAN101	Spanish II
STEM270	Thinking and Acting Ethically
<b>Civics, Political and Social Sciences (6 semester hours)<sup>1</sup></b>	
Select 2 courses from the following: 6	
ANTH100	Introduction to Anthropology
ANTH202	Introduction to Cultural Anthropology
CHFD220	Human Sexuality
COMM211	Social Media and Society
COMM240	Intercultural Communication
ECON101	Microeconomics
ECON102	Macroeconomics
ECON201	Microeconomics for Business

ECON202	Macroeconomics for Business
EDUC200	Humane Education: A Global Interdisciplinary Perspective
GEOG101	Introduction to Geography
HOSP110	Practical Food Safety and Awareness
IRLS210	International Relations I
LITR212	Forgotten America--Under Represented Cultures in American Literature
LITR235	Four Points of the Compass: Culture and Society Around the World
POLS101	Introduction to Political Science
POLS210	American Government I
PSYC101	Introduction to Psychology
RELS250	Death and Dying
RELS260	Race & Religion
RELS270	Hope and Resilience
SOCI111	Introduction to Sociology
SOCI212	Social Problems
SOCI220	American Popular Culture
STEM280	Exploring Society and Cultures via Science Fiction

#### Communication: Writing, Oral, and Multimedia (9 semester hours)

COMM120	Information and Digital Literacy	3
ENGL110	Making Writing Relevant	3
ITCC231	Introduction to Information Technology Writing	3

#### History (3 semester hours)

Select 1 course from the following:		3
HIST101	American History to 1877	
HIST102	American History since 1877	
HIST111	World Civilization before 1650	
HIST112	World Civilization since 1650	
HIST121	Western Civilization before The Thirty Years War	
HIST122	Western Civilization since The Thirty Years War	
HIST221	African-American History before 1877	
HIST222	African-American History since 1877	
HIST223	History of the American Indian	
HIST270	History of Science	
STEM185	The History and Context of STEM	

#### Mathematics and Applied Reasoning (3 semester hours)

MATH110	College Algebra	3
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#### Natural Sciences (3 semester hours)

STEM100	Introduction to STEM Disciplines	
Total Semester Hours		27

<sup>1</sup> All literature courses require successful completion of ENGL101 - Proficiency in Writing or ENGL110 - Making Writing Relevant.

### Major Required (24 semester hours)

Code	Title	Semester Hours
ENTD261	Scripting Languages for the Administrator	3
ISSC231	Networking Concepts	3
ISSC242	Hardening Operating Systems	3
ISSC262	Red and Blue Team Security	3
ISSC266	Cryptography Concepts	3
ITMG281	Law, Privacy, and Digital Data	3
MATH302	Statistics	3
ISSC221	Intermediate Computer Systems	3
Total Semester Hours		24

### Final Program Requirements (3 semester hours)

Code	Title	Semester Hours
ISSC298	Cybersecurity Capstone Portfolio	3
Total Semester Hours		3

### Elective Requirements (3 semester hours)

Code	Title	Semester Hours
Select any courses comprised of lower (100-200) level courses not already taken to fulfill the requirements listed above. Additional general education courses may be taken to fulfill elective requirements.		3
Total Semester Hours		3