

# CYBERSECURITY - MINOR

This minor provides cybersecurity fundamentals, including programming and ethics, tailored to various student interests and majors.

## Program Requirements

Select one of the following tracks:

Code	Title	Semester Credit Hours
<b>Engineering Track</b>		
CSCE 313	Introduction to Computer Systems	4
CSCE 410	Operating Systems	3
CSCE 465	Computer and Network Security	3
Select 6 hours from the following:		6
CSCE 402	Law and Policy in Cybersecurity	
CSCE 451	Software Reverse Engineering	
CSCE 463	Networks and Distributed Processing	
CSCE 485	Directed Studies <sup>1</sup>	
CYBR 403/ CSCE 477	Cybersecurity Risk	
CYBR 484	Professional Internship <sup>1</sup>	
CYBR 485	Directed Studies <sup>1</sup>	
CYBR 491	Research <sup>1</sup>	
ECEN 424	Fundamentals of Networking	
ECEN 484	Professional Internship <sup>1</sup>	
ECEN 485	Directed Studies <sup>1</sup>	
<b>Total Semester Credit Hours</b>		<b>16</b>

Code	Title	Semester Credit Hours
<b>Interdisciplinary Track</b>		
CSCE 402	Law and Policy in Cybersecurity	3
or ITSV 308	or Cybersecurity and Digital Ethics	
Select one of the following:		4
CSCE 110	Programming I	
CSCE 111	Introduction to Computer Science Concepts and Programming	
CSCE 121	Introduction to Program Design and Concepts	
ESET 269	Embedded Systems Development in C	
Select 9 hours from the following:		9
BMEN 428/CSCE 461	Embedded Systems for Medical Applications	
CSCE 402	Law and Policy in Cybersecurity <sup>2</sup>	
CSCE 436	Computer-Human Interaction	
CSCE 465	Computer and Network Security	
CYBR 403/ CSCE 477	Cybersecurity Risk	
ECEN 424	Fundamentals of Networking	

ESET 315	Local-and-Metropolitan-Area Networks
ESET 349	Microcontroller Architecture
ESET 415	Advanced Network Systems and Security
ESET 455	Wireless Transmission Systems
FIVS 123	Forensic Investigations
FIVS 205	Introduction to Forensic and Investigative Sciences
GEOG 392	GIS Programming
ISTM 310	Network Communications and Infrastructure
ISTM 315	Database Programming
ISTM 320	Business Systems Analysis and Design
MATH 470	Communications and Cryptography
MATH 471	Communications and Cryptography II
POLS 447	National Security Policy
ITSV 303	Unix System Administration Practices
ITSV 308	Cybersecurity and Digital Ethics <sup>2</sup>
ITSV 316	Database Systems Administration and Application

**Total Semester Credit Hours 16**

Code	Title	Semester Credit Hours
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### Technology track

ITSV 308	Cybersecurity and Digital Ethics	3
Select 13 hours from the following:		13

CSCE 402	Law and Policy in Cybersecurity
CYBR 403/ CSCE 477	Cybersecurity Risk
ESET 269	Embedded Systems Development in C
ESET 315	Local-and-Metropolitan-Area Networks
ESET 349	Microcontroller Architecture
ESET 415	Advanced Network Systems and Security
ESET 419	Engineering Technology Capstone I <sup>1</sup>
ESET 420	Engineering Technology Capstone II <sup>1</sup>
ESET 456	Embedded Sensors and Internet of Things (IoT) Systems
ITSV 303	Unix System Administration Practices
ITSV 316	Database Systems Administration and Application
TCMG 476	Technical Network Capstone <sup>1</sup>

**Total Semester Credit Hours 16**

<sup>1</sup> Course must be approved by the Director of Interdisciplinary Engineering for inclusion in the minor and include applications in cybersecurity .

<sup>2</sup> Course may be applied to latter category only if it is not applied above.

Minimum required GPA to declare minor is a 2.5.

Must make a grade of C or better in each course used towards minor.

Must achieve an overall GPA of 2.5 in approved minor coursework.

Minimum of 6 hours at 300-400 level.