

# CYBERSECURITY (COMPSFI)

## Cybersecurity (COMPSFI) 101

### Networking Essentials

This course is designed to provide essential knowledge in networking that is required for further study in Cybersecurity. It will explore the areas of knowledge necessary to understand general networking essentials and lay the foundation for further study and coursework. Writing assignments, as appropriate to the discipline, are part of the course.

2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.

**Offered At:** DA, HW, KK, MX, OH, TR, WR

## Cybersecurity (COMPSFI) 102

### Information Security Essentials

This course covers essential terminology, concepts, principles, and practices in Information Security and Assurance. The course balances a mix of technical and non-technical components for building, managing, and maintaining secure systems. The course introduces students to risk management, security policies, and prevailing controls and countermeasures used to minimize the risk of security breaches and intrusions. The course also provides an overview of the current trends in Information Security and the challenges faced when attempting to build secure systems. Writing assignments, as appropriate to the discipline, are part of the course.

*Grade C or better in CIS 116 or COMPSFI 101 or NET TEC 121, or Consent of Department Chairperson*

2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.

**Offered At:** DA, HW, KK, MX, OH, TR, WR

## Cybersecurity (COMPSFI) 202

### Cybercrime and Incident Response

This course covers the history, evolution, and the prevailing types and forms of cybercrime in our interconnected world. Students learn about the weakest links cybercriminals tend to exploit. The course covers the different types of cybercrime activities, intrusions and breaches, as well as, cybercrime terminology. Students learn how programming weakness/flaws or human errors make systems and applications vulnerable to cybercrime. The course introduces digital forensics and the application of forensic techniques to investigate cybercrime and respond to incidents and breaches. Writing assignments, as appropriate to the discipline, are part of the course/.

*Grade C or better in COMPSFI 101 or NET TEC 121, or Consent of Department Chairperson*

2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.

**Offered At:** DA, HW, KK, MX, OH, TR, WR

## Cybersecurity (COMPSFI) 203

### Financial Cybercrime

This course is one of the requirements for Computer Security and Forensic Investigation certificate program /plan 297. Explores the various types of economic cybercrime, the far-reaching consequences of such crime, and some recovery and countermeasures. Writing assignments, as appropriate to the discipline, are part of the course.

*Grade of C or better in COMPSFI 102 and COMPSFI 202.*

3 Lecture hours. 3 Credit Hours.

**Offered At:** WR

## Cybersecurity (COMPSFI) 204

### Intro to Computer Forensics and Law

This course is one of the requirements for Computer Security and Forensic Investigation certificate program/plan 297. Designed to provide an introduction to the world of computer forensics and the attendant legal issues concerning privacy and electronic evidence. Explores computer forensics as the science of collecting, preserving and analyzing data from computers so they can be admissible at a company discipline hearing or in a court of law. Surveys problems of maintaining a secure technological environment, protecting the identity of individuals, as well as protecting confidential information. In addition, it will introduce techniques used in the collection and analysis of evidence. Writing assignments, as appropriate to the discipline, are part of the course.

*Grade of C or better in COMPSFI 102 and COMPSFI 202.*

3 Lecture hours. 3 Credit Hours.

**Offered At:** WR

## Cybersecurity (COMPSFI) 205

### Cyber Forensics

This course covers digital forensic techniques, procedures, and technology used in responding to cybercrime incidents and breaches. The course demonstrates how to manage digital forensic evidence, how to use accepted computer forensic technology and tools to respond, how to draw sound conclusions based on digital forensic examination and analysis, and how to present collected information and findings to various audiences including management. Writing assignments, as appropriate to the discipline, are part of the course.

*Grade of C or better in COMPSFI 202 -OR- Consent of Department Chairperson.*

1 Lecture Hours. 4 Laboratory Hours. 3 Credit Hours.

**Offered At:** DA, KK, OH, WR

## Cybersecurity (COMPSFI) 206

### Internet Vulnerabilities, Criminal Activities & Investigative Procedures

This course is one of the requirements of the Computer Security and Forensic Investigation program/plan 297. An overview of appropriate, lawful investigative procedures for the collection, documentation, preparation and presentation of evidence from internet cybercrime investigations. The lab course focuses on the areas of search and seizure, the use of some evidence analysis and presentation software and other appropriate software tools. Writing assignments as appropriate to the discipline are part of the course.

*Grade of C or better in CIS 158, or Consent of Department Chairperson.*

2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.

**Offered At:** WR

## Cybersecurity (COMPSFI) 212

### Scripting for Cybersecurity

Scripting languages have become an integral part of modern cybersecurity testing, analysis and verification. The course builds upon the foundational course in programming to develop scripts and programs for the modern security professionals' toolbox to monitor, protect against, contain, respond to and recover from cyberattacks. Writing assignments, as appropriate to the discipline, are part of the course.

*Grade of C or better in CIS 103 and COMPSFI 101 -OR- NET TEC 121 -OR- Consent of Department Chairperson.*

2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.

**Offered At:** DA, KK, OH, WR

### **Cybersecurity (COMPSFI) 213**

#### **Ethical Hacking**

This course introduces a hands-on practical approach to ethical hacking. The course introduces key concepts, principles, and techniques for attacking and compromising a network as to ultimately secure it. The course also emphasizes network attack methodologies with emphasis on the practical use of network attack tools and techniques, appropriate defenses, and countermeasures. Writing assignments, as appropriate to the discipline, are part of the course.

*Grade of C or better in COMPSFI 102 -OR- Consent of Department Chairperson.*

4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.

**Offered At:** DA, KK, OH, WR

### **Cybersecurity (COMPSFI) 214**

#### **Information Security Systems Analysis**

This course examines the integral components of effective Cybersecurity practices including Threat Management, Vulnerability Management, Cyber Incident Response, and Security Architecture. The course provides an overview of the challenges faced when attempting to build and maintain secure systems in a networked environment and explores the monitoring of systems for identification and response to intrusions and breaches. Writing assignments, as appropriate to the discipline, are part of the course.

*Grade of C or better in COMPSFI 202 -OR- Consent of Department Chairperson.*

2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.

**Offered At:** DA, KK, OH, WR

### **Cybersecurity (COMPSFI) 215**

#### **Information Security Domain**

This course provides a detailed study of the Body of Knowledge (CBK) for the Information Security domains. The course covers each domain, the areas it encompasses, and how each is integral to the information security process. This course is initial preparation or review for those who may wish to pursue certification as an Information Security Systems professional. Writing assignments, as appropriate to the discipline, are part of the course.

*Grade of C or better in COMPSFI 102 -OR- Consent of Department Chairperson.*

3 Lecture hours. 3 Credit Hours.

**Offered At:** DA, KK, OH, WR

### **Cybersecurity (COMPSFI) 216**

#### **Info Security Program Management**

The course explores critical areas of enterprise security and risk management and examines secure solutions for complex enterprise environments. Students apply critical thinking and judgment across a broad spectrum of security areas to propose and implement solutions that meet enterprise requirements. The course covers key security program management practices, such as policies and procedures, which govern how institutions view the importance of securing today's networked environments susceptible to cybercrime. Writing assignments, as appropriate to the discipline, are part of the course.

*Grade of C or better in COMPSFI 213 -OR- Consent of Department Chairperson.*

2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.

**Offered At:** DA, KK, OH, WR

### **Cybersecurity (COMPSFI) 231**

#### **Internetworking Security**

This course provides a detailed understanding of prevailing network security principles and practices. It covers strategies, tool and configurations used to secure network devices and network infrastructures. Students develop the skills necessary to secure routers and switches, and learn how to apply security controls and countermeasures to minimize security risks that modern network infrastructures face. Writing assignments, as appropriate to the discipline, are part of the course.

*Grade of C or better in NET TEC 122, or Consent of Department Chairperson.*

2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.

**Offered At:** DA, KK, OH, TR, WR