Cyse - Cybersecurity

Cybersecurity Courses

Cyse 100. Cyber Explorers and University Orientation. 1 Credit.
This course provides an introduction to cyber hygiene and orientation to
university life.

Cyse 300. Introduction to Cybersecurity. 3 Credits.
This course provides an overview of the field of cybersecurity. It covers
core cybersecurity topics including computer system architectures, critical
infrastructures, cyber threats and vulnerabilities, cryptography, information
assurance, network security, and risk assessment and management. Students
are expected to become familiar with fundamental security concepts,
technologies and practices, and develop a foundation for further study in
cybersecurity. Prerequisite: Math 162M or permission of the instructor.

Cyse 301. Cybersecurity Techniques and Operations. 3 Credits.
This course introduces tools and techniques used to secure and analyze large
computer networks and systems. Students will explore and map networks
using a variety of diagnostic software tools, learn advanced packet analysis,
configure firewalls, write intrusion detection rules, perform forensic
investigation, and practice techniques for penetration testing. Prerequisite:
Math 162M or permission of the instructor.

Cyse 368. Cybersecurity Internship. 1-6 Credits.
This course allows students to volunteer to work in an agency related to
cybersecurity. Students must volunteer for 50 hours per course credit and
complete course assignments. Prerequisite: approval by the Director of the
Center for Cybersecurity Education and Research.

Cyse 406. Cyber Law. 3 Credits.
This course tackles two major cyber law subjects. The first part of the
course examines various U.S. laws and legal considerations that impact
the digital and cyberspace worlds from traditional civil, and to a lesser
extent, traditional criminal perspectives. The second part will familiarize
cyber operations professionals about the extent of and limitations on
their authorities to ensure operations in cyberspace are in compliance
with U.S. law, regulations, directives and policies. The course will also
introduce students to miscellaneous cybersecurity topics such as the Federal
Acquisition Requirements. Prerequisite: junior standing.

Cyse 407. Digital Forensics. 3 Credits.
This course introduces the basic concepts and technologies of digital
forensics. Students will learn the fundamental techniques and tools utilized
for collecting, processing, and preserving digital evidence on computers,
mobile devices, networks, and cloud computing environments. Students
will also engage in oral and written communication to report digital forensic
findings and prepare court presentation materials. Prerequisites: declared
major and junior standing.

Cyse 495/495. Topics in Cybersecurity. 1-3 Credits.
The advanced study of selected cybersecurity topics designed to permit
small groups of qualified students to work on subjects of mutual interest.
These courses will appear in the course schedule, and will be more fully
described in information distributed to academic advisors. Prerequisite:
permission of the instructor.

Cyse 496/496. Topics in Cybersecurity. 1-3 Credits.
The advanced study of selected cybersecurity topics designed to permit
small groups of qualified students to work on subjects of mutual interest.
These courses will appear in the course schedule, and will be more fully
described in information distributed to academic advisors. Prerequisite:
permission of the instructor.

Cyse 497/597. Tutorial Work in Special Topics in Cybersecurity. 1-3
Credits.
Independent reading and study on a topic to be selected under the direction
of an instructor. Conferences and papers as appropriate. Prerequisites:
senior standing and approval of the Director of the Center for Cybersecurity
Education and Research.

Cyse 498/598. Tutorial Work in Special Topics in Cybersecurity. 1-3
Credits.
Independent reading and study on a topic to be selected under the direction
of an instructor. Conferences and papers as appropriate. Prerequisites:
senior standing and approval of the Director of the Center for Cybersecurity
Education and Research.

Cyse 595. Topics in Cybersecurity. 1-3 Credits.
The advanced study of selected cybersecurity topics designed to permit
small groups of qualified students to work on subjects of mutual interest.
These courses will appear in the course schedule, and will be more fully
described in information distributed to academic advisors. Prerequisite:
permission of the instructor.

Cyse 596. Topics in Cybersecurity. 1-3 Credits.
The advanced study of selected cybersecurity topics designed to permit
small groups of qualified students to work on subjects of mutual interest.
These courses will appear in the course schedule, and will be more fully
described in information distributed to academic advisors. Prerequisite:
permission of the instructor.

Cyse 597. Tutorial Work in Special Topics in Cybersecurity. 1-3
Credits.
Independent reading and study on a topic to be selected under the direction
of an instructor. Conferences and papers as appropriate. Prerequisite:
 approval of the Director of the Center for Cybersecurity Education and Research.

Cyse 598. Tutorial Work in Special Topics in Cybersecurity. 1-3
Credits.
Independent reading and study on a topic to be selected under the direction
of an instructor. Conferences and papers as appropriate. Prerequisite:
approval of the Director of the Center for Cybersecurity Education and Research.