CYSE 494. Entrepreneurship in Cybersecurity, 3 Credits.
This course is designed to help students enhance their personal and professional development through innovation guided by faculty members and professionals. It offers students an opportunity to integrate disciplinary theory and knowledge through developing a nonprofit program, product, business, or other initiative. The real-world experiences that entrepreneurships provide will help students understand how academic knowledge leads to transformations, innovations, and solutions to different types of problems. The course can be delivered either as an independent project for individual students or as group projects similar to those sometimes offered in topics courses. Prerequisite: Approval by the Director of the Center for Cybersecurity Education and Research.

CYSE 495/595. 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 496/596. 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 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.
CYSE 600. Cybersecurity Principles. 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, cryptographic protocol design, 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.

CYSE 601. Advanced Cybersecurity Techniques and Operations. 3 Credits.
This course introduces tools and techniques used to secure and analyze large computer networks and systems. It will include significant hands-on lab work. Students will explore and map networks using a variety of diagnostic software tools, learn advanced packet analysis, configure firewalls, write intrusion detection rules, perform malware detection, forensic investigation, and practice techniques for penetration testing.

CYSE 603. Advanced Cybersecurity Law and Policy. 3 Credits.
This course addresses two major cyber law subject matters. The first part of the course examines various U.S. laws and legal considerations that impact the digital and cyberspace worlds from civil and criminal perspectives. The second part, which builds upon the first, 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.

CYSE 605. Leadership and Management in Cybersecurity. 3 Credits.
This course introduces skills to manage technical professionals and lead strategic change in their organization. Based on the basic operations and functionality of cybersecurity systems, students will learn the management of cybersecurity technical professionals, including how to effectively lead and manage teams, how to launch and assess organizational change initiatives, and how to work effectively within an interdependent group to achieve common goals.