

CYBERSECURITY (MS)

Degree Requirements

Requirements for Master's Degree in Cybersecurity

Students must satisfactorily complete all prescribed prerequisite courses, a comprehensive examination, and thirty six (36) graduate credit hours for the Cybersecurity Master of Science degree. Required prerequisite courses are prescribed by the Cybersecurity Coordinator after reviewing prior academic work and results from any required School of Computing Foundation Placement Examinations. Cybersecurity majors must complete their Cybersecurity program with a minimum grade of "B" in all core courses, a minimum grade of "C" in CIS 518, and an overall program GPA of 3.0. The thirty six (36) graduate hours consist of twelve (12) hours of CORE courses, twelve (12) hours of REQUIRED courses, and twelve (12) semester hours of approved elective courses according to the selected concentration option as follows:

Code	Title	Hours
Core Courses		
All core courses must be completed with a minimum grade of "B"		
CIS 530	Information Assurance/IT Audit	3
CYB 570		
and pick two of the following		
CIS 535	Digital Forensic Analysis	3
CIS 540	Network Security Management	3
ISC 590	IS Sp Top -	3
Required Courses		
CIS 518	CIS Research Methodologies	3
CIS 538	OS Concepts and Security	3
CYB 555	Data Security	3
ISC 565	IS Project-Change Management	3
Total Hours		24

Concentrations

(12 Semester Hours)

Three concentrations of study are available. These are **thesis**, **project**, and **course-only** concentrations.

Thesis Concentration

For the Thesis Concentration, twelve (12) semester hours of required and elective course work are required.

Research Development

A minimum of three (3) semester credit hours of CIS 595, Computer and Information Sciences Research Development, are required. A Thesis Concentration student may only enroll in CIS 595 after successfully completing CIS 518 and their core courses. A Thesis Concentration student must be enrolled in CIS 595 in the semester during which they defend their thesis prospectus. A grade of "C" or lower in CIS 595 will result in the dismissal of the student from the Thesis Concentration.

Thesis

A minimum of three (3) semester credit hours of CIS 599, Computer and Information Sciences Thesis, must be applied towards the degree for the Thesis Concentration. Students may only enroll in CIS 599 after successfully defending their thesis prospectus (minimum grade of "B" in

CIS 595). A Thesis Concentration student must be enrolled in CIS 599 in the semester during which they defend and/or submit their thesis.

Elective Course Work

Six (6) semester hours of additional approved electives are required. A maximum of three (3) semester hours of Special Permission courses may be applied to the degree for the Thesis Concentration. A list of Pre-Approved Cybersecurity courses and a list of Special Permission courses are given at the end of this section.

Comprehensive Examination

All students in the Thesis Concentration must pass an oral comprehensive examination administered after the thesis committee accepts the thesis. The School of Computing Comprehensive Examination Policies and Procedures document and the Comprehensive Examination Application form are available at <https://www.southalabama.edu/colleges/soc/essentialstudentlinks.html>.

Project Concentration

For the Project Concentration, twelve (12) semester hours of required and elective course work are required.

Project Proposal Development

A minimum of three (3) semester credit hours of CYB 595, Cybersecurity Project Proposal Development are required. A Project Concentration student must be enrolled in CYB 595 in the semester during which they defend their project prospectus. A grade of "C" or lower in CYB 595 will result in the dismissal of the student from the Project Concentration. Students may only enroll in CYB 595 after successfully completing CIS 518.

Project

A minimum of three (3) semester hours credit of CYB 598, Cybersecurity Project, must be applied towards the degree for the Project Concentration. Students may only enroll in CYB 598 after successfully defending their project proposal. A Project Concentration student must be enrolled in CYB 598 in the semester during which they defend and/or submit their project.

Elective Course Work

Six (6) semester hours of additional approved electives are required. A maximum of three (3) semester hours of Special Permission courses may be applied to the degree for the Project Concentration. A list of Pre-Approved Cybersecurity courses and a list of Special Permission courses are given at the end of this section.

Comprehensive Exam

All students in the Project Concentration must pass an oral comprehensive examination administered after the project committee accepts the project. The School of Computing Comprehensive Examination Policies and Procedures document and the Comprehensive Examination Application form are available at <https://www.southalabama.edu/colleges/soc/essentialstudentlinks.html>

Course Only Concentration

For the Course Only Concentration, twelve (12) semester hours of elective course work are required.

Elective Course Work

Twelve (12) semester hours of approved electives are required. A maximum of six (6) semester hours of Special Permission courses may be applied to the degree of the Course Only Concentration. No credits from CYB 595, CYB 598, CIS 595, or CIS 599 may be applied to the Course

Only Concentration. A list of Pre-Approved Cybersecurity courses and a list of Special Permission courses are given at the end of this section.

Comprehensive Examination

Students in the Course Only Concentration must pass a written examination. Students wishing to sit for the examination must apply on-line to the Director of SoC Graduate Studies by the Friday of the first week of classes in the semester in which the examination is to be taken. The comprehensive examination is offered twice a year. The School of Computing Comprehensive Examination Policies and Procedures document and the Comprehensive Examination Application form are available at <https://www.southalabama.edu/colleges/soc/essentialstudentlinks.html>

Cybersecurity Electives

A list of Pre-Approved Cybersecurity elective courses and a list of Special Permission courses are given below. All other courses must be approved by the Cybersecurity Coordinator. A maximum of six (6) credit hours of non-CYB, non-ISC, or non-CIS courses will be allowed.

- CYB 566 – Network Forensics
- CYB 567 – Ethical Hacking
- CYB 568 – Intrusion Analysis and Response
- CYB 569 – SCADA Security
- ISC 553 – IS Website Management
- ISC 590 – Special Topics
- CYB 590 – Special Topics

Approval of the Cybersecurity Coordinator and the Director of the SOC Graduate Studies is required for CIS graduate faculty sponsorship of a Special Permission Course. A maximum of six (6) credit hours of Special Permission/Directed Study (CIS 594) courses may be applied to the degree for the Course Only Concentration.

For additional information about the Cybersecurity graduate program, please contact Dr. Debra Chapman at cybersecuritygraduate@southalabama.edu ([cybersecuritygraduate@southalabama.edu?subject=](mailto:%20cybersecuritygraduate@southalabama.edu?subject=)) or (251) 460 - 7370