

## CSCI 5181 - INDEPENDENT STUDIES PROJECT

**CREDIT HOURS:** 1 - 3

**PREREQUISITES:** CSCI 5180 with a grade of B or higher; Permission of project director and the department chair.

### CATALOG DESCRIPTION

Design and development of a selected project.

### PURPOSE OF COURSE

Continued development, implementation, documentation, analysis, and dissemination of a significant research project through the mentorship of graduate faculty in cyber security.

### EDUCATIONAL OBJECTIVES

The goal of this course is to provide the student experience in developing the concepts and skills required to implement a complete system. Student evaluation will be based on successful development, and presentation of a project system.

Upon successful completion of the course, students should be able to:

1. Demonstrate knowledge of the issues and problems in requirements analysis and specification of a system.
2. Demonstrate skills in the design of a system.
3. Demonstrate implementation and testing skills.
4. Relate design, analysis, and implementation to application performance requirements.
5. Develop and extend system and user interface documentation techniques.
6. Analyze example systems, noting advantages and disadvantages, and potential for improvement.

### COURSE CALENDAR

The contact and credit hours are in a ratio of 2:3. The credit hours are variable from 1 to 3. The course is centered on the development of a significant research project in cyber security. The student shall meet multiple times with their research mentor to continue developing their research including the design, implementation, testing, statistical analysis, documentation, and dissemination of their research. Course work will vary depending on the specific subject.

### CONTENT

**Hours**

Project Selection and Resource Search ..... Variable

Requirements Analysis and Specification ..... Variable

System Design..... Variable

System Implementation and Testing..... Variable

System Interface and Documentation..... Variable

System Demonstration and Report..... Variable