

# CS 305

## Software Security



## Course Description

Through the analysis of advanced security concepts, students will learn how to develop secure code that complies with security testing protocols. In addition to exploring and implementing security concepts through code, students will also learn why and how to apply encryption technologies and techniques to communicate securely.

## Competency Projects

The course goals are communicated through three competency statements instead of through course outcomes. Competencies represent the knowledge and skills relevant to your field. Additionally, there is not a single final project like you may have seen in other courses. Instead, there are two smaller projects. Still, the amount of material covered, the level of difficulty, and the workload expectations are all typical of a 300-level course.

### Project One (Module Three submission)

Examine Artemis Financial's web-based software application to identify security vulnerabilities in their current software.

In this project, you will demonstrate your mastery of the following competency:

- Analyze how advanced security concepts are applied to develop secure code



### Project Two (Module Seven submission)

Refactor code for Artemis Financial's current software application to add secure communication mechanisms and meet their software security requirements.

In this project, you will demonstrate your mastery of the following competencies:

- Design and implement code that complies with software security testing protocols
- Write secure communications through the application of current encryption technologies and techniques



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Weeks



