

ITMS 418 SYLLABUS

ITMS 418 Coding Security

Hours: 3 credit hours / 45 contact hours

Instructor: Bonnie A. Goins

Textbook, title, author, and year: Online publications from The Open Web Application Security Project (OWASP) at <https://owasp.org/>

- d. Software Assurance Maturity Model (SAMM) – Intro
- e. SAMM – Business Functions
- f. SAMM – Security Practices
- g. Security Practices
- h. SAMM – Security Practices
- i. Application Security Assessment
- j. Application Vulnerability Management

Specific course information

- a. **Catalog description:** In-depth examination of topics in application security program development, stakeholder engagement, software assurance maturity measurement, identification and treatment of software vulnerabilities and implementation of a formal vulnerability management program. Homework is required for this course.
- b. **Prerequisites:** ITMD 411.
- c. **Required for Applied Cybersecurity and Information Technology.**

Specific goals for the course

- a. **Course outcomes:** Each successful student will demonstrate foundation knowledge of application security concepts and best practices. Students will describe and identify application security vulnerabilities and weaknesses, how to assess for them in an environment, how to treat these vulnerabilities and how to respond to incidents involving coding issues.
- b. **Course student outcomes:**
At the conclusion of this course each student should be able to:
 - Explain the concept of application security
 - Identify and describe the OWASP Top Ten application vulnerabilities
 - Recall and describe the secure software/system development lifecycle
 - Create, implement, and maintain a formal Application Security Program
 - Describe how a formal program assists the CISO and other business stakeholders in maintaining a robust security program
 - Describe the application security assessment process
 - Write an appropriate application security report

Topics to be covered

- a. Introduction to Application Security
- b. Building an Application Security Program – Day 1
- c. Building an Application Security Program – Day 2