**CYBR 201(8339): Web Technologies Essentials: Security and Design**

3 Credits

**Semester:** Spring 2025

**Day/Time:** Asynchronous

**Location:** Online

**Instructor:** Crystal Jones-Howe

**Contact:** cjones-howe@albany.edu

**Office Hours:** As requested,

**Office Location:** online

**Office Hour Zoom:** as requested

**Individual Project Charter**

**Project Purpose/Justification:**

The purpose of this course is to equip students with the foundational skills of web development, while taking on the role of a professional web developer. Throughout the 15-week course, students will design, develop, and showcase their own web development portfolio. This portfolio will demonstrate their technical skills and provide an essential tool for potential clients or employers to view their capabilities.

**Project Description:**

Students will develop a personal portfolio website showcasing their web development skills, including the use of HTML, CSS, JavaScript, and web security principles. The course will guide students through each stage of web development, from building a site’s structure and design to adding interactivity and ensuring security. The final outcome will be a professional portfolio that students can use to present their work to potential clients or employers.

**Goals and Objectives:**

* Technical Skills Development:
  + Master HTML, CSS, and JavaScript fundamentals.
  + Learn key web security concepts to protect both websites and user data.
* Applied Learning:
  + Build and deploy real-world websites throughout the course.
  + Gain practical experience through hands-on projects and assignments.
* Problem Solving and Creativity:
  + Work through real-world coding challenges.
  + Develop the ability to solve web development problems with efficient, maintainable code.
* Capstone Project:
  + Create a portfolio website that showcases your skills and the projects you’ve worked on throughout the course.

**Key Deliverables:**

* A portfolio website that demonstrates proficiency in HTML, CSS, JavaScript, and web security.
* A capstone project that includes a functional, interactive website incorporating all course concepts.

**Project Timeline:**

Week 1-3: Introduction to HTML and CSS

* Structure websites with HTML.
* Style pages with CSS.
* Hands-on project: Build a simple personal webpage.

Week 4-6: Introduction to JavaScript

* Learn how to add interactivity to web pages using JavaScript.
* Hands-on project: Create a dynamic to-do list.

Week 7-9: Advanced JavaScript and Web Security Basics

* Dive into more advanced JavaScript concepts.
* Understand web security best practices, such as HTTPS and input validation.
* Hands-on project: Build a secure login form.

Week 10-12: Real-World Application

* Develop interactive and user-friendly websites.

Week 13-15: Capstone Project

* Build a personal portfolio website.
* Finalize and present your capstone project for peer review.