CSC 351 - INTERNET PROGRAMMING CONCEPTS

CREDIT HOURS: 3
PREREQUISITES: CSC 201 or 302; CSC 211 and 350
GRADE REMINDER: Must have a grade of C or better in each prerequisite course.

CATALOG DESCRIPTION

Introduction to Internet application programming using scripting languages and user-interface design in a server delivered, browser-based environment. May not be used to satisfy computer science requirements for a major or minor in computer science or computer information systems.

PURPOSE OF COURSE

To familiarize the student with the structure and use of Internet application programming languages and with the elements of user-interface design.   The focus is on client-side scripting using HTML, CSS, and JavaScript. The emphasis of this course will be on syntax and debugging, web form processing and data validation using common programming structures, dynamic content using JavaScript and HTML, working with objects and cookies, and using JavaScript to interact with existing web services. Students are expected to have a working knowledge of HTML, CSS, and introductory programming concepts (variables, operators, decision structures, repetition structures, and methods).

EDUCATIONAL OBJECTIVES

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

1. Use the essential features of a standard, server-delivered applications language and the ability to create well-designed programs in this environment.
2. Use tools and techniques to construct attractive and useful user interfaces.
3. Design and develop server-side web applications.
4. Demonstrate an understanding of the importance of web standards.
5. Complete team-based projects.
6. Design and develop interactive, client-side web applications.
7. Explain how the client-server model of Internet programming works.

COURSE CALENDAR

This course meets for a minimum of 37.5 lecture contact hours during the semester, including the final exam. Students have significant weekly extracurricular assignments which involve readings, programming, or engaging in other forms of preparation. Students are expected to complete 5-6 major homework assignments related to the above topics, multiple in-class laboratory assignments, and 2-3 exams in addition to the final exam. Students are expected to prepare for any class assignments or quizzes over the material covered in class or the extracurricular assignments. Successful completion of these activities requires at a minimum six additional hours of outside of classroom work each week.

CONTENT   **HOURS**

REFERENCES

Eric Freeman & Elisabeth Robson. *Head First HTML5 Programming*. O'Reilly Media. October 2011.

Harris, Ray. *Murach's Javascript and DOM Scripting*. Mike Murach & Associates. 2009.

Head First HTML and CSS, 2nd Edition by Elisabeth Robson and Eric Freeman

HTML & XHTML: The Definitive Guide by Chuck Musciano, Bill Kennedy

CSS: The Definitive Guide by Eric A. Meyer