

NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY

ITP 225 - WEB SCRIPTING LANGUAGES (4 CR.)

Course Description

Introduces students to the principles, systems, and tools used to implement Web applications. Provides students with a comprehensive introduction to the programming tools and skills required to build and maintain interactive Web sites. Students will develop Web applications utilizing client-side and server-side scripting languages along with auxiliary tools needed for complete applications. Lecture 4 hours per week.

General Course Purpose

Client and server-side scripting languages are critical to the integrated Web application. This course will cover a broad spectrum of Web programming technologies. As such, the course will fill the void between client-side Web page development and server-side applications such as enterprise Java and ASP.NET server-side applications to give the student a complete picture of all types of Web development.

Course Prerequisites/Corequisites

Prerequisites: ITD 110 and ITP 100.

Course Objectives

Upon completing the course, the student will be able to:

- Demonstrate how Web servers work and how to administer them
- Include forms on the Web page
- Validate input on a Web page form using client-side validation and server-side validation and sanitation
- Activate a form action to call a server-side application
- Design and implement server-side applications using a server-side scripting language
- Access a server-side database
- Explain the ramifications of security for Web applications.
- Demonstrate how data interchange technologies fits into Web development
- Utilize a scripting language library or framework

Major Topics to be Included

- Introduction to Web server technology, development tools, and Web-based applications
- Introduction to various methods used today to deploy web applications in a multi-developer work environment
- Introduction to the deployment of applications to a Web server
- Review of HTML (Hypertext Markup Language) and CSS (Cascading Style Sheets)
- Introduction to client-side scripting languages such as JavaScript in Web application development
- Introduction to data interchange formats
- Use a client-side programming language such as JavaScript to develop interactive Web content including forms, style sheets, data validation, and animation
- Introduction to server-side scripting languages such as PHP in Web application development
- Use a server-side programming language such as PHP to create dynamic web sites
- Use a server-side programming language such as PHP to validate forms and sanitize data
- Review database operations
- Use a server-side programming language such as PHP to integrate with a database in a web application
- Use a library/framework that supports a scripting language thus promoting Rapid Application Development (RAD)