

# CSP 527: Client-Server Applications Development

## Texts

- H.M. Dietel, P.J. Dietel, and T.R. Nieto, *Internet and World Wide Web, How to Program*, Prentice Hall, 2002, ISBN 0-13-030897-8

## Objectives

- Through hands-on experience in developing a client-server database project and developing and managing a client-server Internet project, this course teaches advanced skills for effective design and implementation of client-server applications.
- Students will examine the architectural and functionality decisions, technologies, configurations, languages, and techniques associated with client-server systems.
- Active/passive client/server technologies, as well as public, enterprise-wide, and inter-enterprise approaches to decision and operation support are discussed and implemented.

## Prerequisites

- CS 425.

## Syllabus

• Basic client/server concepts	2 hours
• Network technologies, architectures, protocols, and NOS	2 hours
• Remote procedure calls, remote data access, and message-passing middleware	2 hours
• Client/server databases	2 hours
• The worldwide Web and Web-based software application architectures	3 hours
• Active and passive client/server technologies	3 hours
• Public, enterprise-wide, and inter-enterprise decision and operations support	2 hours
• Web page and web site design and web servers	2 hours
• Architecture of a browser and the browser object model	2 hours
• HTML, JavaScript, DHTML, Java, and Java applets	3 hours
• Common Gateway Interfaces (CGI's), Active Server Pages (ASP), and Java Server Pages (JSP)	3 hours
• Internet client/server database access and back-end database servers	2 hours
• State maintenance, channels, and webcasting	2 hours
• XML, DTD, XSL, data islands, XML and DB, XML for decision support	2 hours
• Web services, search engines, and .NET	3 hours
• Client/server application development with TCP/IP	2 hours
• Thin-clients/servers; graphical user interfaces	2 hours
• Security, public/private key cryptography, digital signatures, digital certificates, SSL, firewalls, and proxy servers	2 hours
• Java client/server applications and legacy applications	2 hours
• E-commerce and models for e-business and e-commerce	2 hours
Total	45 hours

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