

**CS421: Advance Web
Technology**

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Course Objective: To understand the Internet & the Web phenomena. Comprehend the evolution, development and research in the area of Web.

S. No.	Course Outcomes (CO)
CO1	This course describe the World Wide Web as a platform for interactive applications, content publishing and social services. Demonstrate competency using FTP to transfer web pages to a server.

CO2	Construct dynamic websites with good aesthetic sense of designing and latest technical skills. Understand the user as well as client point of view of the system.
CO3	List a Good grounding of Web Application Terminologies, Internet Tools, E – Commerce and other web services.
CO4	Identify fundamental skills to maintain web server services required to host a website.
CO5	Describe markup languages for processing, identifying, and presenting of information in web pages using markup languages such as: HTML, XHTML and XML language.
CO6	Design websites using appropriate security principles, focusing specifically on the vulnerabilities inherent in common web implementations.

S. No	Contents	Contact Hours
UNIT 1	Inter-Networking: Internet, Growth of Internet, Owners of the Internet, Anatomy of Internet, APRANET and Internet history of the World Web, Basic Internet Terminology, Net etiquette. Working of Internet: Packet switching technology, Internet Protocols: TCP/IP, Router. Internet Addressing Scheme: Machine Addressing (IP address), E-mail Address, Resource Addresses.	6
UNIT 2	Internet Applications: E-mail, file transfer (FTP), telnet, usenet, Internet chat, Web.	4
UNIT 3	Evolution of Web:Web 1.0: Hypertext & linking documents, HTTP, Client-Server, peer-to-peer; Web Browser (Lynx, Mosiac, Netscape, Internet Explorer, Firefox, and Safari, the mobile web); Impact: Opportunities & Challenges. Web 2.0: From 1.0 to 2.0; Framework; Technologies: Client-side & server-side; Web 2.0 development technologies; Examples: social networking sites, blogs, wikis, video sharing sites, hosted services(web services, location-based services), web applications, mashups & folksonomies; Practical Usage. Web 3.0: From 2.0 to 3.0; Semantic Web: What, How, Why; From Web 3.0 to Web 4.0	10
UNIT 4	Web Development: Phases; Web Page, Website, and Web Application: Example, Technology Framework for development.cClient-side technology: HTML (HTML5). Client-side scripting: JavaScript. Server-side technology: PHP.Server-side scripting: Server-side JavaScript.Web application development frameworks: Django& Ruby on Rails. Web Database: Database Connectivity: JDBC, ODBC; Database-to- web connectivity.	14
UNIT 5	Web Search and Mining:Web IR System: Search Engines, Web Crawling, Search Engine Optimization, Web Analytics, Web Mining Taxonomy; Web Mining Framework; Social Web Mining.Text Mining: Opinion Mining, Recommendation System, Topic Detection and Tracking.	8
Total		42