4. COMPUTER SCIENCE DOMAIN ELECTIVE COURSES

Course Title	**Web Technologies**
Course Code	**EC-331**
Credit hours	3
Category	Technical Elective
Prerequisite	Programming Fundamentals
Co-Requisite	None
Follow-up	None
Course Description	Introduction to Web Applications, TCP/IP Application Services. Web Servers: Basic Operation, Virtual hosting, Chunked transfers, Caching support, Extensibility. SGML, HTML5, CSS3. XML Languages and Applications: Core XML, XHTML, XHTM MP. Web Service: SOAP, REST, WML, XSL. Web Services: Operations, Processing HTTP Requests, Processing HTTP Responses, Cookie Coordination, Privacy and P3P, Complex HTTP Interactions, Dynamic Content Delivery. Server Configuration. Server Security. Web Browsers Architecture and Processes. Active Browser Pages: JavaScript, DHTML, AJAX. JSON, Approaches to Web Application Development. Programing in any Scripting language. Search Technologies. Search Engine Optimization. XML Query Language, Semantic Web, Future Web Application Framework.
Text Book(s)	Paul J. Deitel and Harvey Deitel, Java How to Program, 11th Edition, Pearson, 2017, ISBN-10: 0134743350, ISBN-13: 978-0134743356.
Reference Material	Marty Hall and Larry Brown, Core Servlets and JavaServer Pages, 2nd Edition, Pearson, 2017, ISBN-10: 8131701638, ISBN-13: 978-8131701638. Web Application Architecture: Principles, protocols and practices by Leon Shklar and Richard Rosen, Wiley; 2nd Edition (May 5, 2009). ISBN-10:047051860X Web Technologies: A Computer Science Perspective by Jeffrey C. Jackson, Prentice Hall; 1st Edition (August 27, 2006). ISBN-10:0131856030