

Programme Title	B.E / B. Tech (BTCE,BECS,BEIS, BTIT, BTRE)	Semester	2
Course Title	WEB DESIGNING	Course Code	10ABTEC24215
Course Credits	3	Credit Hours	45
1. Course Description This course introduces the fundamental concepts of web design, covering HTML, CSS, JavaScript, server-side scripting, database connectivity, and Go Lang. Students will gain hands-on experience building interactive websites and web applications.			
2. Goals <ul style="list-style-type: none">• Build a strong foundation in web development principles and practices.• Develop skills to create professional-quality websites.• Gain hands-on experience with web development tools and technologies.• Understand the importance of user experience and accessibility in web design.• Prepare for a career in web development or related fields.			
3. Objectives of Development : <ul style="list-style-type: none">• Build a strong foundation in web development principles and practices.• Develop skills to create professional-quality websites.• Gain hands-on experience with web development tools and technologies.• Understand the importance of user experience and accessibility in web design.• Prepare for a career in web development or related fields.			
4. Course Outcome			
COs	Course outcomes		RBT
CO1	Show various elements of html and css in a web page. (why, what, how, how to assess)		L1
CO2	Write Java script code to add functionality to the website		L2
CO3	Apply the knowledge of servers while installing and running various web services.		L3
CO4	Simulate a website using database connectivity in SQL.		L3
CO5	Define various components and functionalities of Go Lang for web development.		L1
5. Teaching Methods			
6. Teaching Plan			
Week	Topic	Hours	Teaching Methods/ Multimedia
1 – 3	Module 1: HTML & CSS Introduction to Git and Github, HTML- List, Tables, Images, Forms, Frames, Cascading Style sheets. Document Object Model	9 Hours 4 Hours/ Week	1. Use of Git and Github for version control and collaboration. 2. Classroom lectures and demonstrations on HTML and CSS using VS Code IDE 3. Multimedia presentations showing examples and use cases 4. Use of tools like W3Schools and MDN for practical exercises.
4 – 6	Module 2: JavaScript Java Script -Control statements, Functions, Arrays, Objects, Events, Dynamic HTML with Java	9 Hours 4 Hours/ Week	1. Lectures on different web servers and their configurations. 2. Hands-on lab sessions for installing and configuring IIS, XAMPP, LAMPP, and

	Script, Ajax , ES6 and ES7, Build responsive websites with Bootstrap.		Tomcat. 3. Demonstrations on using VS Code for web technologies. 4. Tutorials on Java Servlets, JSP, and PHP from reference books and online resources.
7 – 9	Module 3: Database Connectivity Introduction to SQL: Installation, Databases, syntax, data types, operators, expressions, comments. SQL Commands – DDL, DML and DCL. Database Connectivity in VS code.	9 Hours 4 Hours/ Week	1. Lectures on SQL basics and database management. 2. Lab sessions on SQL commands and MySQL database setup. 3. Practical exercises on building responsive websites with Bootstrap. 4. Use of e-materials and online SQL tutorials for additional practice.
10 – 12	Module 4: WEB SERVERS IIS (XAMPP, LAMPP) and Tomcat Servers. Node JS Building a projects in VS Code, Session Tracking, Cookies.	9 Hours 4 Hours/ Week	1.Lectures on different web servers and their configurations. 2. Hands-on lab sessions for installing and configuring IIS, XAMPP, LAMPP, and Tomcat. 3. Demonstrations on VS Code for web Projects . 4. Tutorials on Session Tracking and Cookies
13 – 15	Module 5: Go Lang (Self-Learn)	9 Hours 4 Hours/ Week	1. Introduction to Go Lang through guided self-learning resources. 2. Practical sessions on building web applications with Go. 3. Use of Go documentation and tutorials. 4. Hands-on coding and testing of Go applications for real-world scenarios.
7. Technology Tools <ul style="list-style-type: none"> • VS Code (Integrated Development Environment) for html, CSS, JavaScript • Web servers and application servers for deploying web applications • Sql Server to create and use databases. . • Node JS • Git & Github 			
8. Skill Based training <ul style="list-style-type: none"> • Develops strong problem-solving and analytical thinking skills. • Enhances critical thinking and decision-making abilities in a web development environment. • Fosters teamwork and collaboration through project-based learning. 			
9. Areas of Employability <ul style="list-style-type: none"> • Web Designer positions in various industries. • Front-end developer roles specializing in user interface and user experience. • E-commerce development opportunities for building online stores 			
10. Inter-department <ul style="list-style-type: none"> • Potential for collaboration with departments, like developing their portfolio webpages etc. 			
11. Skill Mentoring <ul style="list-style-type: none"> • Mentorship program can be implemented to provide personalized guidance 			
12. Mentorship Model			

<ul style="list-style-type: none"> • Peer Mentoring (Mentor – Mentee)
13. Potential Employers <ul style="list-style-type: none"> • Intel, TCS, HCL, PraLoTech Solutions.
14.1 National Employers <ul style="list-style-type: none"> • TCS, HCL, BEL
14.2 International Employers <ul style="list-style-type: none"> • Intel, Robert Bosch, TCS, HCL
15 Evaluation Method <ul style="list-style-type: none"> • Formative assessment methods, such as Continuous Internal Assessment (CIA) quizzes, case studies, projects, presentations, assignments, and preparatory examinations, are complemented by summative assessment methods, which include the End Semester Examination conducted online.
16 Teaching Materials and Methods Handouts, E-Materials, E-Platform to execute coding, Lab Manuals, E-Books
16.1 Text and Main Document <ol style="list-style-type: none"> a. Learning Web Design: A Beginner’s Guide to HTML, CSS, JavaScript, and Web Graphics by Jennifer Niederst Robbins, Latest Edition: 5th Edition (June 19, 2018) b. Learning PHP, MySQL & JavaScript with jQuery, CSS and HTML5 by Robin Nixon Latest Edition: 6th Edition (July 2021) c. The Go Programming Language by Alan A. A. Donovan and Brian W. Kernighan Latest Edition: 1st Edition (October 26, 2015)
16.2 Documents for further study <ul style="list-style-type: none"> • HTML5: The Missing Manual by David Flanagan, 5th edition (O'Reilly Media, 2021). • CSS Master by Andy Bell, 2nd edition (O'Reilly Media, 2018). • JavaScript: The Definitive Guide by David Flanagan, 7th edition (O'Reilly Media, 2021). • Robert W. Sebesta, “Programming with World Wide Web”, Pearson, 4th edition, 2008 • David William Barron, “The World of Scripting Languages”, Wiley Publications, 2000 • Responsive Web Design by Ethan Marcotte (A Book Apart, 2010). • JavaScript Patterns by Stoyan Stefanov (O'Reilly Media, 2010). • You Don't Know JS series by Kyle Simpson (O'Reilly Media, various years). • Learn Node.js by Ethan Brown (O'Reilly Media, 2016).
E- Learning <ol style="list-style-type: none"> 1. Learning Web Design: A Beginner’s Guide to HTML, CSS, JavaScript, and Web Graphics by Jennifer Niederst Robbins <ul style="list-style-type: none"> ○ Learning Web Design PDF on Internet Archive¹ ○ Google Books Preview² 2. Learning PHP, MySQL & JavaScript with jQuery, CSS and HTML5 by Robin Nixon <ul style="list-style-type: none"> ○ Learning PHP, MySQL & JavaScript PDF on Internet Archive³ ○ Google Books Preview⁴ 3. The Go Programming Language by Alan A. A. Donovan and Brian W. Kernighan <ul style="list-style-type: none"> ○ The Go Programming Language PDF on Internet Archive⁵ ○ Official Website⁶
<ol style="list-style-type: none"> a. Online and Print Magazines <ul style="list-style-type: none"> • Web Designer Magazine: A popular online magazine covering web design trends, tutorials, and industry news.

<ul style="list-style-type: none"> • A List Apart: A web design and development publication known for its in-depth articles and insightful analysis. • Smashing Magazine: A comprehensive resource for web designers and developers, offering tutorials, articles, and design inspiration. • CSS-Tricks: A blog dedicated to CSS, HTML, and JavaScript, with a focus on practical tips and techniques.
<p>b. Online and Print Journals</p> <ul style="list-style-type: none"> • ACM Transactions on Computer-Human Interaction (TOCHI): A scholarly journal publishing research on human-computer interaction, including web design and usability. • IEEE Transactions on Visualization and Computer Graphics: A journal focused on computer graphics, visualization, and user interfaces, relevant to web design. • International Journal of Human-Computer Interaction: A journal covering various aspects of human-computer interaction, with a focus on user experience and design.
<p>c. Videos</p> <ul style="list-style-type: none"> • freeCodeCamp: Offers a vast collection of free coding tutorials, including web design courses. • The Net Ninja: Provides comprehensive web development tutorials, covering HTML, CSS, JavaScript, and more. • Web Dev Simplified: Offers concise and easy-to-follow tutorials on web development topics.
<p>2. What are the likely improvements suggested for the course over the next 12 months?</p> <p>Based on the syllabus provided, here are some likely improvements suggested for the course Web designing:</p> <p>Content Updates:</p> <ul style="list-style-type: none"> • Incorporate newer web technologies and frameworks: Stay updated with the latest trends and include topics such as React, Vue.js, or Svelte. • Expand the database section: Provide more in-depth coverage of database design, normalization, and advanced SQL queries. • Introduce cloud-based development: Explore cloud platforms like AWS, GCP, or Azure and their integration with web applications. • Focus on accessibility and inclusivity: Emphasize best practices for creating accessible web designs that cater to users with disabilities. <p>Delivery Methods:</p> <ul style="list-style-type: none"> • Implement more interactive learning activities: Consider using online coding challenges, quizzes, and simulations to enhance engagement. • Offer project-based learning opportunities: Assign group projects or individual assignments that allow students to apply their knowledge to real-world scenarios. • Provide mentorship or peer tutoring: Pair students with experienced mentors or peers to offer additional support and guidance. <p>Additional Resources:</p> <ul style="list-style-type: none"> • Curate a list of recommended online tools and resources: Share resources like design tools, code editors, and debugging tools.

- Create a community forum or discussion board: Facilitate interaction among students and instructors for sharing knowledge and asking questions.
- Organize guest lectures or workshops: Invite industry experts to share their experiences and insights.

Overall Course Structure:

- Consider a more flexible learning format: Explore options like flipped classrooms, self-paced modules, or blended learning to accommodate different learning styles.
- Evaluate the effectiveness of the teaching methods: Gather feedback from students to identify areas for improvement and adjust the teaching approach accordingly.
- Align the course content with industry demands: Ensure that the skills taught are relevant to current job market trends and employer expectations.

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