



Colorado BMEF CTE Course – Scope and Sequence

Course Name	Web Design I	Course Details	Credits = .5 (Semester) Level 3		
		Course = 0.50 Carnegie Unit Credit			
Course Description	Introduces website planning, design, development, and publishing using current web standards and industry tools. Topics include the history of the internet, web industry roles, and the relationships between HTML, CSS, and JavaScript with an emphasis on User Experience (UX) / User Interface (UI), accessibility, structured design processes, and file management. The course also covers frameworks and design systems to build, optimize, and publish responsive, multi-page digital experiences.				
Note	This is a suggested scope and sequence for the course content in a BMEF Pathway. The content will work with any textbook or instructional resource. If locally adapted, make sure all competencies are covered. Course aligns to CCNS (MGD1041). Additional resources may be available through the Multimedia CTE Pathway . The appropriate Technology/IT/Multimedia Credential is required to teach this class in the BMEF pathway. Please contact your local community college for further information regarding opportunities for credit.				
SCED Identification # 10201		Schedule calculation based on 60 calendar days of a 90-day semester. Scope and sequence allows for additional time for guest speakers, student presentations, field trips, remediation, or other content topics.			
All courses taught in an approved CTE program must include Essential Skills embedded into the course content. The Essential Skills Framework for this course can be found at https://www.cde.state.co.us/standardsandinstruction/essentialskills					
Instructional Unit Topic	Suggested Length of Instruction	CTE or Academic Standard Alignment	Competency / Performance Indicator	Outcome / Measurement	CTSO Integration
1. Internet Foundations & History	1 week	CTE IT Pathway; Digital Literacy	Analyze evolution of internet and societal impact	Written reflection or quiz on historical milestones (CLO 1)	**FBLA: Introduction to Information Technology, Website Design, E-business, Graphic Design **Appropriate throughout the course**
2. Web Industry Roles & Career Paths	1 week	CTE Career Readiness; Employability Skills	Compare roles across startup, agency, and enterprise workflows	Case study comparison or presentation (CLO 2)	
3. Core Web Technologies (HTML/CSS/JS)	2 weeks	CTE Programming & Software Dev; CS Standards	Explain relationships between structure, presentation, behavior	Concept map + short coding exercises (CLO 3)	

4. File Management & Web Infrastructure	1 week	CTE IT Systems; Digital Operations	Organize files locally/remotely using best practices	File structure project submission (CLO 8)	
5. Code Editors & Development Tools	1 week	CTE Technical Skills; Productivity Tools	Evaluate editors, plugins, and dev tools	Tool comparison report or demo (CLO 4)	
6. Analytics, SEO & Optimization	1 week	CTE Data & Analytics; Marketing Tech	Evaluate strategies for traffic and visibility	SEO audit or optimization plan (CLO 5)	
7. Accessibility & Inclusive Design	1 week	ADA/WCAG Alignment; CTE Ethics & Accessibility	Apply accessibility standards and universal design	Accessibility checklist applied to sample site (CLO 6)	
8. UX/UI Principles & Human-Centered Design	1.5 weeks	CTE Design Principles; Arts & Communication	Apply UX/UI heuristics and user-centered design	UX critique + redesign activity (CLO 9)	
9. Web Design Process (Discovery → Launch)	1.5 weeks	Project Management; CTE Design Workflow	Explain structured design process stages	Process documentation assignment (CLO 7)	
10. Structured Planning (Wireframes, Sitemaps)	2 weeks	CTE Design Thinking; Visual Communication	Plan digital experience using structured design methods	Wireframe + sitemap deliverables (CLO 10)	
11. Prototyping & Iteration	2 weeks	CTE Product Development; Iterative Design	Develop prototypes incorporating UX/UI principles	Interactive prototype with feedback revisions (CLO 11)	
12. Frameworks & Design Systems	1 week	CTE Software Dev Practices; Industry Tools	Use frameworks/pattern libraries for responsive design	Framework-based mini project (CLO 12)	
13. Web Development (HTML, CSS, JS)	3 weeks	CS Programming Standards; CTE Software Dev	Build multi-page responsive website with interactivity	Functional website project (CLO 13)	
14. Testing, Validation & Debugging	1 week	QA/Testing Standards; Problem-Solving	Validate, test, and troubleshoot site functionality	Testing checklist + bug fix log	
15. Publishing & Deployment	1 week	CTE IT Infrastructure; DevOps Basics	Publish site using hosting and protocols	Live website deployment (CLO 14)	
16. Final Project & Portfolio Presentation	1 week	CTE Capstone; Career Readiness	Integrate full design and development workflow	Final website + presentation + rubric evaluation	



Academic Standards Alignment

Colorado CTE courses are required to integrate academic and essential skills into course content. The following academic standards have been identified as aligned to this course and should be integrated throughout instruction.

[CO CTE Academic Standards Resources](#) (Rubrics, integration strategies, etc)

[CDE Colorado Academic Standards Online](#) (Online standards lookup tool)

Reading, Writing, & Communicating

Standard 1: Oral Expression and Listening

- **Prepared Graduate 1:** Collaborate effectively as group members or leaders who listen actively and respectfully; pose thoughtful questions, acknowledge the ideas of others; and contribute ideas to further the group's attainment of an objective.

Standard 2: Reading for All Purposes

- **Prepared Graduate 4:** Read a wide range of informational texts to build knowledge and to better understand the human experience.
- **Prepared Graduate 5:** Understand how language functions in different contexts, command a variety of word-learning strategies to assist comprehension, and make effective choices for meaning or style when writing and speaking.

Standard 3: Writing and Composition

- **Prepared Graduate 7:** Craft informational/explanatory texts using techniques specific to the genre.
- **Prepared Graduate 9:** Demonstrate mastery of their own writing process with clear, coherent, and error-free polished products.

Standard 4: Research Inquiry and Design

- **Prepared Graduate 10:** Gather information from a variety of sources; analyze and evaluate its quality and relevance; and use it ethically to answer complex questions.

Note: Mathematics and Science standards will be added in the future. Visit the [Colorado Academic Standards](#) page for the most current version.