



**College of Contract Management
United Kingdom**

Advanced Diploma in Web Design



Syllabus

Contents

1. Programme Structure and Rules of Combination

2. Course Content

1. Programme Structure and Rules of Combination

1.1 Rationale

The Advanced Diploma in Web Design course will give students the skills they need to succeed in their career in Web Design. Students will build the competencies they need to become competent and successful Web Designers, teaching them about HTML5, CSS3 Fundamentals, Java Script and DOM Manipulation, Design Tools, Content Management Systems (CMS) and Web Security.

The advanced diploma is equivalent to a postgraduate qualification, which will boost the learners' Bachelor's degree and can lead to a rewarding career as a Applications developer, Game developer, Multimedia programmer, Multimedia specialist, SEO specialist, UX designer, UX researcher, Web content manager, Web designer, or Web developer.

Students aiming for a higher salary, greater responsibility and believe they have what it takes to be in the field of web design and development, then the Advanced Diploma in Web Design course is ideal for them.

1.2 Progression to Career

The programme provides the underpinning knowledge and understanding for the Advanced Diploma in Web Design. It also enables students to study towards a university degree.

1.3 Mandatory Modules

The programme comprises 12 core modules. Students performances will be assessed by open book online assignments, which take place after each module (12 in total). Each module is 30 hours of lectures.

Module Reference	Title
WD101	HTML5 and CSS3 Fundamentals
WD102	JavaScript and DOM Manipulation
WD103	User Interface (UI) Design Principles
WD104	User Experience (UX) Design Principles
WD105	Advanced Design Tools
WD106	Advanced Front-End Development
Year 2	
WD201	Web Accessibility
WD202	Content Management Systems (CMS)
WD203	Advanced UI/UX Design
WD204	Web Security
WD206	Capstone Project and Final Review

1.4 Entry Requirements

If you are looking to take this Advanced Diploma in Web Design, you will need to have prior experience within the industry. Additionally, you will need to be competent with IT and have a background in basic coding. If you have any questions regarding your eligibility, please don't hesitate to contact us via our LiveChat or via email on enquiries@theccm.co.uk.

1.5 Module and Assessment Grades

The tutor will award a grade for the achievement of each unit (fail, pass, merit or distinction). Unit grades apply to overall performance in units including assignments and practical scenario-based exercises.

Indicative marking descriptors for differentiating between levels of achievement when marking assignments are provided below (Section 1.8). The candidate can obtain a maximum of one-module exemption according to our RPL policy.

The overall grade for a qualification is calculated using a points system. Each module grade attracts points as follows:

Fail	0 points
Pass	1 point
Merit	2 points
Distinction	3 points
Unit Exemption	1 point

1.6 Assessment

The assessment process is set by the College of Contract Management, which defines the requirements learners are expected to meet in order to demonstrate that a learning outcome has been achieved. All learning outcomes must be achieved in order to gain attainment of credit for that unit.

All completed assessments are marked and verified internally, and are subject to approval by our partner universities or institutions.

The assessment criteria are based on 3 areas:

- 1. Task Achievement** - This is a measure of how well the candidate answers the task question(s) and identifies the important aspects of the task.
- 2. Technical Content** - This is a measure of how well the candidate identifies, describes and evaluates the technical aspects of the task.
- 3. Presentation** - This is a measure of how well the candidate presents the assignment, including the quality of the structure and paragraphing, the quality and relevance of visual or graphical content and the referencing used for quoted sources.

1.7 Assignment Policies

1. All submission of assignments must include:
 - a. Your completed assignment front page with your name and details.
 - b. all source material must be cited in the text and a full bibliography of source material (including author, title, publisher, edition and page) listed at the end of the submission.
2. All submissions must be submitted into our system as instructed by the Examinations Officer.
3. All submissions under the student's name must only be the work of that student. All information sources must be acknowledged. **There is the possibility of failing the unit if the content of the assignment is deemed to be plagiarised** as set out in the rules and regulations of the institution.
4. All submissions should be in pdf format and students **must** keep a copy of all submitted work for reference purposes. Receipt will be acknowledged by the College once the work is submitted.
5. Whenever a candidate submits work after the approved deadline without an authorised extension, a maximum "Pass" grade will be awarded. The Assessor will comment on the quality of the work for learning purposes.
6. Requests for extensions of submission deadlines must be submitted via the Exam Portal **prior** to the submission deadline and must be supported by documentary evidence.

1.8 Indicative Marking Descriptors

Note: Please note that the bands below describe indicative characteristics only. An overall holistic approach is required when assessing a candidate's work and assigning a grade. Please read these grading bands in conjunction with the College of Contract Management Assignment Policy.

Grade	Task Achievement - The Relevance of the Response	Inclusion of Relevant Technical Knowledge in Content	Presentation/Coherence
Distinction			
70%+	The work demonstrates a comprehensive understanding of the task. All relevant information is included and the main issues are effectively identified and analysed. There is evaluation and analysis of solutions to any issues relevant to the task. The response shows control of content within the word count.	The work demonstrates a strong understanding of a wide range of technical issues relevant to the task. There is analysis of the advantages/disadvantages of any possible choices, risks and potential outcomes.	The work is appropriately structured and the argument is developed coherently. There is a recognised form of source referencing which supports the points made in the task. Paragraphing and titling are used effectively to assist the reader and the use of visual/graphical information is clear and effective. The graphical information is relevant to the task and is accurate.
Merit			
60-69%	The work demonstrates a clear understanding of the main issues relevant to the task and the issues are explained effectively and any potential solutions are identified. There is an attempt to analyse the merits of the solutions proposed. The task is broadly achieved within the word count and relevant to the assignment.	The work demonstrates an understanding of the key technical issues of the task. There is clear description of relevant technical aspects with some attempt to evaluate the merits of their solutions relating to the set task.	Demonstrates an awareness of presentation and an attempt to present the information with clarity and coherence. There is referencing to any sources used and the paragraphing and titling assists the reader. Clear graphical information supports their assignment and it has broad relevance to the task but, there might be some inaccuracies/omissions in their overall submission.
Pass			
40-59%	The work demonstrates an understanding of the task and the main points of the task are identified. There is no attempt to evaluate or analyse their solutions and there may be some inaccuracies, omissions and irrelevant content within their submission. There may be lack of control in relation to the word count.	The work identifies the main technical issues and demonstrates an understanding of these. Their submission may be limited to a description with little evidence of any evaluation. There may be some omissions and inaccuracies in the detail and there may be some irrelevant information.	There is an attempt to structure the information and evidence of paragraphing and titling has been made but it is not always appropriate. Some basic graphical information may be included which is of some assistance to the reader. There may be some omissions or inaccuracies in their submission and the work is generally coherent however, there may be occasional lapses in coherence and overall structure.
Fail			
0-39%	The work shows a poor understanding of the subject, with frequent inaccuracies and it fails to identify important aspects of the task. Much of the information provided is irrelevant to the task and there may be evidence of copying and pasting from external sources. The response may be limited to lists of words with no attempt to explain the relevance/merits of these to the task set and the assignment falls short of the word count.	The work demonstrates a lack of understanding of the technical aspects and there are omissions of important technical information. Errors are evident in the technical content and there has been no attempt to explain the relevance of the technical content to the task.	The assignment lacks structure and may be limited to lists of points which are not developed, it is also disorganised in structure which makes it difficult for the reader to understand the points being made. The submission is illegible or incoherent in places with no referencing of any external sources used. The graphical illustrations are of poor quality or are absent and they may be irrelevant to the task set. There may be errors and a lack of clarity causing difficulty for the reader to understand.

1.8 Indicative Marking Descriptors

Note: Please note that the bands below describe indicative characteristics only. An overall holistic approach is required when assessing a candidate's work and assigning a grade. Please read these grading bands in conjunction with the College of Contract Management Assignment Policy.

Grade	Task Achievement - The Relevance of the Response	Inclusion of Relevant Technical Knowledge in Content	Presentation/Coherence
Distinction			
80%+	The work demonstrates a comprehensive understanding of the task. All relevant information is included and the main issues are effectively identified and analysed. There is evaluation and analysis of solutions to any issues relevant to the task. The response shows control of content within the word count.	The work demonstrates a strong understanding of a wide range of technical issues relevant to the task. There is analysis of the advantages/disadvantages of any possible choices, risks and potential outcomes.	The work is appropriately structured and the argument is developed coherently. There is a recognised form of source referencing which supports the points made in the task. Paragraphing and titling are used effectively to assist the reader and the use of visual/graphical information is clear and effective. The graphical information is relevant to the task and is accurate.
Merit			
65-79%	The work demonstrates a clear understanding of the main issues relevant to the task and the issues are explained effectively and any potential solutions are identified. There is an attempt to analyse the merits of the solutions proposed. The task is broadly achieved within the word count and relevant to the assignment.	The work demonstrates an understanding of the key technical issues of the task. There is clear description of relevant technical aspects with some attempt to evaluate the merits of their solutions relating to the set task.	Demonstrates an awareness of presentation and an attempt to present the information with clarity and coherence. There is referencing to any sources used and the paragraphing and titling assists the reader. Clear graphical information supports their assignment and it has broad relevance to the task but, there might be some inaccuracies/omissions in their overall submission.
Pass			
55-64%	The work demonstrates an understanding of the task and the main points of the task are identified. There is no attempt to evaluate or analyse their solutions and there may be some inaccuracies, omissions and irrelevant content within their submission. There may be lack of control in relation to the word count.	The work identifies the main technical issues and demonstrates an understanding of these. Their submission may be limited to a description with little evidence of any evaluation. There may be some omissions and inaccuracies in the detail and there may be some irrelevant information.	There is an attempt to structure the information and evidence of paragraphing and titling has been made but it is not always appropriate. Some basic graphical information may be included which is of some assistance to the reader. There may be some omissions or inaccuracies in their submission and the work is generally coherent however, there may be occasional lapses in coherence and overall structure.
Fail			
0-54%	The work shows a poor understanding of the subject, with frequent inaccuracies and it fails to identify important aspects of the task. Much of the information provided is irrelevant to the task and there may be evidence of copying and pasting from external sources. The response may be limited to lists of words with no attempt to explain the relevance/merits of these to the task set and the assignment falls short of the word count.	The work demonstrates a lack of understanding of the technical aspects and there are omissions of important technical information. Errors are evident in the technical content and there has been no attempt to explain the relevance of the technical content to the task.	The assignment lacks structure and may be limited to lists of points which are not developed, it is also disorganised in structure which makes it difficult for the reader to understand the points being made. The submission is illegible or incoherent in places with no referencing of any external sources used. The graphical illustrations are of poor quality or are absent and they may be irrelevant to the task set. There may be errors and a lack of clarity causing difficulty for the reader to understand.

1.9 Calculating Overall Qualification Grade

To calculate the overall qualification grade, the individual module grades should be added together and compared to the table below.

Candidates must pass all 12 modules of the programme.

Total Points for all 12 Modules	Overall Grade
24	Distinction
23	
22	
21	
20	
19	Merit
18	
17	
16	
15	
14	
13	Pass
12	
11	
10	
9	
8	
7 or fewer	Fail
Candidates must achieve at least a pass in (or hold exemption from) all 12 modules to be awarded the Advanced Certificate.	

WD101: HTML5 and CSS3 Fundamentals

Lecture	Content
1. HTML5 Elements and Attributes	<ul style="list-style-type: none"> • HTML Primer • New Semantic Elements • Multimedia Elements • Form Elements and Attributes
2. HTML Forms and Input Elements	<ul style="list-style-type: none"> • Form Structure and Styling • Input Types and Attributes • Form Validation
3. Semantic HTML	<ul style="list-style-type: none"> • Role of Semantic HTML • ARIA Landmarks and Roles • SEO Best Practice
4. CSS Styling Techniques	<ul style="list-style-type: none"> • Integrating CSS • The CSS Box Model • CSS Selectors and Declarations
5. Advanced CSS Selectors	<ul style="list-style-type: none"> • Combinator Selectors • Attribute Selectors • Pseudo Selectors
6. CSS Transitions and Animations	<ul style="list-style-type: none"> • Transition Properties • Keyframes and Animation Properties • Creating Smooth Animations
7. Flexbox Layout	<ul style="list-style-type: none"> • Flexbox Concepts and Properties • Flexbox Responsive Layouts • Flexbox vs. Grid
8. CSS Grid Layout	<ul style="list-style-type: none"> • Grid Concepts and Properties • Grid Responsive Layouts • Grid vs. Flexbox
9. CSS Frameworks (e.g. Bootstrap, Pure.css)	<ul style="list-style-type: none"> • Introduction to CSS Frameworks • Bootstrap Grid System • Customising Bootstrap • Alternative CSS Frameworks e.g. Pure.css
10. Responsive Images and Media	<ul style="list-style-type: none"> • Responsive Techniques • Responsive Images • Responsive Media Embedding
11. CSS Preprocessors (e.g. Sass, Less)	<ul style="list-style-type: none"> • Overview of CSS Preprocessors • Variables and Mixins • Nesting and Functions in Sass

12. Project: Building a Responsive Website	<ul style="list-style-type: none">• Applying Responsive Design Principles• Integrating CSS Frameworks• Project Review and Feedback
13. Project: CSS Framework Implementation	<ul style="list-style-type: none">• Implementing a CSS Framework in a Project• Customising Framework Components• Project Review and Optimisation
14. Project: Advanced Styling Techniques	<ul style="list-style-type: none">• Advanced CSS Styling Challenges• Exploring CSS Grid and Flexbox• Refining Project Styles
15. Project: Responsive Web Design Project Review	<ul style="list-style-type: none">• Collaborative Project Review• Iterative Feedback and Improvement• Final Project Showcase

WD102: JavaScript and DOM Manipulation

Lecture	Content
1. JavaScript Basics	<ul style="list-style-type: none"> Variables, Data Types, and Operators Control Flow and Looping Functions and Scope
2. JavaScript Functions and Scope	<ul style="list-style-type: none"> Function Declarations and Expressions Scope and Closures Higher-Order Functions
3. JavaScript Objects and Arrays	<ul style="list-style-type: none"> Objects and Arrays in JavaScript Iterating and Modifying Objects Array Methods
4. DOM Manipulation and Traversal	<ul style="list-style-type: none"> Understanding the DOM Selecting and Manipulating DOM Elements Event Handling
5. Event Handling in JavaScript	<ul style="list-style-type: none"> Event Types and Event Listeners Event Propagation Handling Form Events
6. Asynchronous JavaScript (Promises, async/await)	<ul style="list-style-type: none"> Introduction to Asynchronous Programming Working with Promises Async/Await Syntax
7. Introduction to AJAX	<ul style="list-style-type: none"> Overview of AJAX Making Asynchronous Requests Fetch API
8. JavaScript Frameworks (e.g. jQuery)	<ul style="list-style-type: none"> Introductions to JavaScript Frameworks jQuery Selectors and Manipulation AJAX with jQuery
9. Debugging JavaScript	<ul style="list-style-type: none"> Browser Developer Tools for Debugging Console Logging and Breakpoints Handling Common JavaScript Errors
10. Cross-Browser Compatibility	<ul style="list-style-type: none"> Understanding Cross-Browser Issues Browser Testing Tools Polyfills and Feature Detection
11. Project: Interactive Web Elements	<ul style="list-style-type: none"> Building Interactive Features with JavaScript Integrating DOM Manipulation Project Review and Enhancements

12. Project: AJAX Integration	<ul style="list-style-type: none">• Incorporating AJAX into a Project• Handling Asynchronous Requests• Project Review and Optimisation
13. Project: Cross-Browser Testing	<ul style="list-style-type: none">• Cross-Browser Testing Strategies• Resolving Cross-Browser Compatibility Issues• Finalising Project for Review
14. Project: Debugging and Optimisation	<ul style="list-style-type: none">• Optimisation and Solutions• Clean Code Techniques• Typescript Static Typing
15. Project: JavaScript Project Review	<ul style="list-style-type: none">• Collaborative Project Review• Iterative Feedback and Improvement• Final Project Showcase

WD103: User Interface (UI) Design Principles

Lecture	Content
1. UI Design Principles	<ul style="list-style-type: none"> Fundamental UI Principles Consistency and Feedback Hierarchy and Balance in UI
2. Colour Theory and Application	<ul style="list-style-type: none"> Colour Psychology Colour Harmony and Schemes Applying Colour in UI Design
3. Typography in UI Design	<ul style="list-style-type: none"> Typeface Selection Font Pairing and Hierarchy Readability and Accessibility
4. Layout and Composition	<ul style="list-style-type: none"> Grid Systems in UI Design Visual Hierarchy and Alignment Responsive Layouts
5. Iconography and Imagery	<ul style="list-style-type: none"> Icon Design Principles Image Selection and Optimisation Icon Fonts and SVGs
6. UI Design Patterns	<ul style="list-style-type: none"> Common UI Design Patterns Navigation and Interaction Patterns Consistency Across Patterns
7. Designing for Different Devices	<ul style="list-style-type: none"> Responsive Design Strategies Mobile-First Design Approach Adapting UI for Various Screens
8. UI Prototyping	<ul style="list-style-type: none"> Prototyping Tools Overview Creating Low-Fidelity Prototypes Interactive Prototyping Techniques
9. Design Systems	<ul style="list-style-type: none"> Introduction to Design Systems Components and Style Guides Maintaining a Design System
10. UI Animation Principles	<ul style="list-style-type: none"> Purpose of UI Animations Types of UI Animations Animation Tools and Techniques
11. Microinteractions	<ul style="list-style-type: none"> Definition and Importance Creating Microinteractions Microinteraction Patterns

12. UI Design Tools (Sketch, Figma)	<ul style="list-style-type: none">• Overview of UI Design Tools• Features and Capabilities• Collaborative Design in Tools
13. Project: UI Design Exploration	<ul style="list-style-type: none">• Exploring UI Design Concepts• Sketching and Ideation• Initial UI Design Concepts
14. Project: UI Prototyping	<ul style="list-style-type: none">• Translating UI Designs to Prototypes• Interactivity in Prototypes• Iterative Prototyping
15. Project: Design System Implementation	<ul style="list-style-type: none">• Building a Design System• Applying Design Patterns• Finalising UI Design Project

WD104: User Experience Design

Lecture	Content
1. Introduction to User Experience (UX)	<ul style="list-style-type: none"> • Definition and Importance of UX • User-Centered Design Approach • UX vs. UI Design
2. User Research Methods	<ul style="list-style-type: none"> • Qualitative vs. Quantitative Research • User Interviews and Surveys • User Personas
3. Creating User Personas	<ul style="list-style-type: none"> • Developing Detailed Personas • Persona Empathy Mapping • Persona Validation
4. User Journey Mapping	<ul style="list-style-type: none"> • Mapping User Interactions • Identifying Pain Points and Opportunities • Iterative User Journey Mapping
5. Information Architecture	<ul style="list-style-type: none"> • Organising Information Structure • Site Maps and Hierarchies • Navigation Design
6. Card Sorting and User Flows	<ul style="list-style-type: none"> • Conducting Card Sorting Exercises • Creating User Flows • Analysing User Flow Metrics
7. Wireframing Techniques	<ul style="list-style-type: none"> • Low-Fidelity vs. High-Fidelity Wireframes • Wireframing Tools Overview • Iterative Wireframing
8. Prototyping for UX	<ul style="list-style-type: none"> • Prototyping Importance in UX • Interactive Prototypes • User Testing Prototypes
9. Usability Testing	<ul style="list-style-type: none"> • Planning and Conducting Usability Tests • Gathering and Analysing Feedback • Iterative Testing
10. Iterative Design Process	<ul style="list-style-type: none"> • Importance of Iteration in UX • Continuous Improvement • Integrating Feedback
11. UX Design Tools	<ul style="list-style-type: none"> • Overview of UX Design Tools • Collaborative UX Design Platforms • Prototyping and Testing Tools

12. Project: UX Design Process Overview	<ul style="list-style-type: none">• Documenting UX Design Process• Project Planning and Scope• Initial User Research
13. Project: Wireframing and Prototyping	<ul style="list-style-type: none">• Translating Research to Wireframes• Developing High-Fidelity Prototypes• Iterative Prototyping
14. Project: Usability Testing	<ul style="list-style-type: none">• Planning and Conducting Usability Tests• Analysing Usability Metrics• Refining Prototypes Based on Feedback
15. Project: UX Design Project Review	<ul style="list-style-type: none">• Collaborative Project Review• Iterative Feedback and Improvement• Final UX Design Showcase

WD105: Advanced Design Tools

Lecture	Content
1. Advanced Use of Design Tools (e.g. Adobe XD)	<ul style="list-style-type: none"> Advanced Features in Design Tools Integrating Design Components Collaborative Design Workflows
2. Collaboration Features in Design Tools	<ul style="list-style-type: none"> Multi-User Editing and Collaboration Version Control and Design History Integrating Design Tools with Development
3. Integrating Design Tools with Development	<ul style="list-style-type: none"> Handoff to Developers Exporting Assets for Development Bridging the Gap Between Design and Development
4. Design Handoff to Developers	<ul style="list-style-type: none"> Best Practices for Handing Off Designs Design Specifications and Documentation Communication with Development Teams
5. Design Versioning and History	<ul style="list-style-type: none"> Version Control in Design Tools Tracking Design Changes Reverting to Previous Versions
6. Designing for Different Screen Sizes	<ul style="list-style-type: none"> Responsive Design in Design Tools Previewing Designs Across Devices Adapting Layouts for Various Screens
7. Responsive Design in Design Tools	<ul style="list-style-type: none"> Responsive Artboards and Canvases Breakpoint Strategies Designing for Mobile-First
8. Advanced Prototyping Techniques	<ul style="list-style-type: none"> Advanced Interactivity in Prototypes Conditional Interactions Simulating Real-World Scenarios
9. Designing for Accessibility	<ul style="list-style-type: none"> Integrating Accessibility Features in Designs Accessibility Testing in Design Tools Designing Inclusive Interfaces
10. Project: Advanced Design Tool Usage	<ul style="list-style-type: none"> Applying Advanced Features in a Project Multi-User Collaboration Iterative Design Refinement
11. Project: Collaboration with Developers	<ul style="list-style-type: none"> Effective Collaboration Strategies Handoff Process in a Collaborative Environment Addressing Development Challenges

12. Project: Design Handoff and Iterations	<ul style="list-style-type: none">• Handoff Documentation• Addressing Developer Feedback• Iterative Design Enhancements
13. Project: Responsive Design Implementation	<ul style="list-style-type: none">• Implementing Responsive Design Principles• Adapting Designs for Different Devices• Responsive Design Testing
14. Project: Design Accessibility Audit	<ul style="list-style-type: none">• Evaluating Designs for Accessibility• Implementing Accessibility Recommendations• Accessibility Testing and Verification
15. Project: Design Tool Mastery and Review	<ul style="list-style-type: none">• Final Collaborative Project Review• Mastery of Design Tools• Showcasing Advanced Design Skills

WD106: Advanced Front-End Development

Lecture	Content
1. Advanced CSS Frameworks (e.g. Tailwind CSS)	<ul style="list-style-type: none"> • Introduction to Advanced CSS Frameworks • Tailwind CSS Concepts and Usage • Customising Tailwind Styles
2. Front-End Build Tools (e.g. Webpack)	<ul style="list-style-type: none"> • Role of Build Tools in Front-End Development • Introduction to Webpack • Configuring and Optimising Webpack
3. CSS-in-JS Libraries	<ul style="list-style-type: none"> • Benefits of CSS-in-JS • Popular CSS-in-JS Libraries (e.g., styled-components) • Implementation in Front-End Projects
4. Introduction to Front-End Frameworks (e.g., React, Angular, Vue.js)	<ul style="list-style-type: none"> • Overview of Front-End Frameworks • Choosing the Right Framework for the Project • Setting Up a Front-End Framework Project
5. Component-Based Architecture	<ul style="list-style-type: none"> • Understanding Components • Building Reusable Components • Component State and Props
6. State Management in Front-End Applications	<ul style="list-style-type: none"> • Importance of State Management • Global State Management Libraries • Implementing State Management in a Project
7. Server-Side Rendering vs. Client-Side Rendering	<ul style="list-style-type: none"> • Comparing Server-Side and Client-Side Rendering • Benefits and Challenges of Each Approach • Choosing the Right Rendering Strategy
8. Progressive Web Apps (PWAs)	<ul style="list-style-type: none"> • What is a PWA? • Building PWAs with Front-End Frameworks • Offline Support and Background Sync
9. WebAssembly and Its Applications	<ul style="list-style-type: none"> • Introduction to WebAssembly • Use Cases and Advantages • Integrating WebAssembly in Front-End Projects
10. Web Performance Optimisation Techniques	<ul style="list-style-type: none"> • Strategies for Optimising Front-End Performance • Lazy Loading and Code Splitting • Measuring and Analysing Web Performance
11. Project: Implementing Advanced Front-End Techniques	<ul style="list-style-type: none"> • Applying Advanced Front-End Concepts • Integrating Front-End Frameworks • Front-End Project Review and Iterations

12. Project: Building a Front-End Application with a Framework	<ul style="list-style-type: none">• Developing a Real-World Front-End Application• Integrating State Management• Addressing Performance Challenges
13. Project: State Management in Front-End Application	<ul style="list-style-type: none">• Implementing Global State Management• Testing and Debugging State• State Management Optimisation
14. Project: Optimising Web Performance	<ul style="list-style-type: none">• Analysing and Optimising Project Performance• Implementing Web Performance Best Practices• Finalising Front-End Project for Review
15. Project: Advanced Front-End Project Review	<ul style="list-style-type: none">• Collaborative Project Review• Iterative Feedback and Improvement• Showcasing Advanced Front-End Skills

WD201: Web Accessibility

Lecture	Content
1. Understanding Web Accessibility Guidelines (WCAG)	<ul style="list-style-type: none"> • Overview of WCAG • Structure and Principles of WCAG • Compliance Levels (A, AA, AAA)
2. Accessible Design Practices	<ul style="list-style-type: none"> • Designing for Keyboard Accessibility • Providing Meaningful Text Alternatives • Ensuring Colour Contrast Readability
3. ARIA (Accessible Rich Internet Applications) Roles	<ul style="list-style-type: none"> • Introduction to ARIA • ARIA Roles and Attributes • Enhancing Accessibility with ARIA
4. Assistive Technologies	<ul style="list-style-type: none"> • Overview of Assistive Technologies • Screen Readers and VoiceOver • Testing with Assistive Technologies
5. Testing Tools for Accessibility	<ul style="list-style-type: none"> • Automated Accessibility Testing • Manual Accessibility Testing • Accessibility Auditing Tools
6. Designing for Cognitive	<ul style="list-style-type: none"> • Cognitive Accessibility Challenges • Inclusive Design Strategies • User Testing with Cognitive Disabilities
7. Designing for Mobility Disabilities	<ul style="list-style-type: none"> • Challenges Faced by Users with Mobility Disabilities • Adapting Navigation for Accessibility • User Testing with Mobility Disabilities
8. Designing for Visual Impairments	<ul style="list-style-type: none"> • Understanding Visual Impairments • Implementing Text-to-Speech and Screen Magnification • User Testing with Visual Impairments
9. Inclusive Design Principles	<ul style="list-style-type: none"> • Principles of Inclusive Design • Designing for Diverse User Needs • Inclusive Design Case Studies
10. Accessibility in Multimedia Content	<ul style="list-style-type: none"> • Captioning and Transcription for Videos • Describing Visual Content for Accessibility • Testing Multimedia Accessibility
11. Project: Accessibility Audit	<ul style="list-style-type: none"> • Conducting Accessibility Audits • Identifying and Addressing Accessibility Issues • Iterative Accessibility Improvements

12. Project: Implementing Accessibility Features	<ul style="list-style-type: none">• Integrating Accessibility Features in a Project• User Testing with Diverse Audiences• Finalising Accessibility Features
13. Project: User Testing with Diverse Audiences	<ul style="list-style-type: none">• Planning and Conducting User Tests• Gathering Feedback from Diverse Users
14. Project: Inclusive Design Implementation	<ul style="list-style-type: none">• Applying Inclusive Design Principles• Addressing Specific User Needs• Finalising Inclusive Design Features
15. Project: Accessibility Project Review	<ul style="list-style-type: none">• Collaborative Project Review• Iterative Feedback and Improvement• Showcase of Accessible Design Features

WD202: Content Management Systems (CMS)

Lecture	Content
1. Introduction to Content Management Systems	<ul style="list-style-type: none"> • Definition and Purpose of CMS • Types of CMS (Traditional vs. Headless) • Pros and Cons of Using a CMS
2. Popular CMS Platforms (e.g. WordPress, Joomla, Drupal)	<ul style="list-style-type: none"> • Overview of Wordpress, Joomla and Drupal • Choosing the Right CMS for a Project • Installation and Setup of a CMS
3. Customising and Theming CMS	<ul style="list-style-type: none"> • Customising CMS Templates and Themes • Creating Custom Page Templates • Theming Best Practices
4. CMS Security Best Practices	<ul style="list-style-type: none"> • Understanding Common CMS Security Risks • Applying Security Best Practices • Regular Security Audits
5. Headless CMS Concepts	<ul style="list-style-type: none"> • What is a Headless CMS? • Benefits and Drawbacks of Headless CMs • Integrating a Headless CMD in Web Design
6. Integrating CMS with Web Design	<ul style="list-style-type: none"> • Designing with CMS Content in Mind • Creating Dynamic Content • Leveraging CMS Features in Design
7. CMS Plugins and Extensions	<ul style="list-style-type: none"> • Overview of CMS Plugins and Extensions • Evaluating and Installing Plugins • Custom Plugin Development
8. Multi-Language Support in CMS	<ul style="list-style-type: none"> • Implementing Multilingual Websites • Language Switching and URL Structure • Translation and Localisation
9. E-commerce Integration with CMS	<ul style="list-style-type: none"> • E-commerce Capabilities in CMS • Integrating Payment Gateways • Security Considerations in E-commerce
10. Project: Setting Up a CMS Website	<ul style="list-style-type: none"> • Choosing and Installing a CMS • Configuring Basic Settings • Initial Content Population
11. Project: Customising CMS Themes	<ul style="list-style-type: none"> • Customising CMS Templates and Themes • Implementing Custom Functionality • Iterative Theme Refinement

12. Project: Securing a CMS Website	<ul style="list-style-type: none">• Implementing Security Measures• Regular Security Audits• Monitoring and Responding to Security Threats
13. Project: Headless CMS Implementation	<ul style="list-style-type: none">• Integrating a Headless CMS in Web Design• Design for a Headless Architecture• Content Retrieval and Display
14. Project: E-commerce Integration	<ul style="list-style-type: none">• Adding E-commerce Functionality to a Website• Integrating Payment Gateways• Addressing E-commerce Security Concerns
15. Project: CMS Project Review	<ul style="list-style-type: none">• Collaborative Project Review• Iterative Feedback and Improvement• Showcase of CMS Website Features

WD203: Advanced UI/UX Design

Lecture	Content
1. Advanced UI Design Principles	<ul style="list-style-type: none"> Gestalt Principles in UI Designing for Emotion Creating Intuitive User Interfaces
2. Advanced Colour Theory in UI Design	<ul style="list-style-type: none"> Psychological Impact of Colours Creating Harmonious Colour Schemes Colour Accessibility and Contrast
3. Advanced Typography in UI Design	<ul style="list-style-type: none"> Custom Fonts and Variable Fonts Expressive Typography Typography Animation Techniques
4. Motion Design in UI	<ul style="list-style-type: none"> Purpose and Principles of Motion Design Microinteractions with Motion Storytelling through Animation
5. Prototyping with Advanced Interactions	<ul style="list-style-type: none"> Prototyping Tools for Advanced Interactions Complex User Flows in Prototypes Interactive Transitions and States
6. Designing for Emerging Technologies (VR, AR)	<ul style="list-style-type: none"> Introduction to VR and AR UI/UX Challenges in Immersive Design Creating Immersive Experiences
7. Advanced User Research Methods	<ul style="list-style-type: none"> Conduction Ethnographic Research Diary Studies and Longitudinal Research Advanced Usability Testing Techniques
8. Designing for Internationalisation	<ul style="list-style-type: none"> Adapting Designs for Global Audiences Multilingual UI Design Cultural Considerations in Design
9. Designing for Emotional Engagement	<ul style="list-style-type: none"> Emotional Design Strategies Creating Memorable User Experiences Measuring Emotional Engagement
10. UX Writing and Microcopy	<ul style="list-style-type: none"> Importance of UX Writing Crafting Effective Microcopy Inclusive Language in UX Writing
11. Project: Advanced UI Design Exploration	<ul style="list-style-type: none"> Exploring Innovative UI Design Concepts Applying Advanced Design Principles Iterative Design Refinement

12. Project: Motion Design in UI	<ul style="list-style-type: none">• Integrating Motion Design in a Project• Enhancing User Experience with Animation• Motion Design Iterations
13. Project: Prototyping Complex Interactions	<ul style="list-style-type: none">• Translating Complex Interactions to Prototypes• Advanced Prototyping Tools and Techniques• User Testing with Interactive Prototypes
14. Project: Designing for Emerging Technologies	<ul style="list-style-type: none">• Design for Virtual and Augmented Reality• Creating Immersive UI/UX• Iterative Design for Emerging Tech
15. Project: Advanced UI/UX Design Project Review	<ul style="list-style-type: none">• Collaborative Project Review• Iterative Feedback and Improvement• Showcase of Advanced UI/UX Design

WD204: Web Security

Lecture	Content
1. Overview of Web Security	<ul style="list-style-type: none"> Importance of Web Security Key Security Threats and Risks Security as a Continuous Process
2. Common Web Security Vulnerabilities	<ul style="list-style-type: none"> SQL Injection Cross-Site Scripting (XSS) Cross-Site Request Forgery (CSRF) Security Best Practices for each Vulnerability
3. HTTPS and SSL/TLS	<ul style="list-style-type: none"> Understanding SSL/TLS Implementing HTTPS SSL/TLS Certificates and Configuration
4. Cross-Site Scripting (XSS) Prevention	<ul style="list-style-type: none"> Input Validation and Sanitisation Content Security Policy (CSP) Secure Coding Practices
5. Cross-Site Request Forgery (CSRF) Prevention	<ul style="list-style-type: none"> Synchroniser Token Pattern Anti-CSRF Tokens Double-Submit Cookies
6. SQL Injection Prevention	<ul style="list-style-type: none"> Parameterised Statements Stored Procedures ORM (Object-Relational Mapping)
7. Security Best Practices in Front-End Development	<ul style="list-style-type: none"> Client-Side Security Considerations Secure Data Transmission Client-Side Authentication Best Practices
8. Security Best Practices in Back-End Development	<ul style="list-style-type: none"> Input Validation and Sanitisation Session Management Secure Communication with Databases
9. Web Application Firewalls (WAF)	<ul style="list-style-type: none"> Role of WAF in Web Security Configuring and Managing a WAF WAF Best Practices
10. Security Audits and Penetration Testing	<ul style="list-style-type: none"> Conduction Security Audits Planning and Executing Penetration Tests Bug Bounty Programs
11. Project: Implementing Web Security Best Practices	<ul style="list-style-type: none"> Applying Security Best Practices in a Project Secure Coding and Configuration Iterative Security Improvements

12. Project: Security Audit and Recommendations	<ul style="list-style-type: none">• Conducting a Security Audit• Documenting Security Vulnerabilities• Providing Security Recommendations
13. Project: Penetration Testing	<ul style="list-style-type: none">• Planning and Executing Penetration Test• Addressing Security Weaknesses• Finalising Project Security
14. Project: Securing a Web Application	<ul style="list-style-type: none">• Implementing Comprehensive Security Measure• Continuous Monitoring and Updating• Final Security Assessment
15. Project: Web Security Project Review	<ul style="list-style-type: none">• Collaborative Project Review• Iterative Feedback and Improvement• Showcase of Secure Web Application

WD206: Capstone Project and Final Review

Lecture	Content
1. Capstone Project Kickoff	<ul style="list-style-type: none"> • Introduction to the Capstone Project • Project Scope and Objectives • Choosing a Real-World Problem or Client
2. Project Planning and Documentation	<ul style="list-style-type: none"> • Creating a Project Plan • Defining Deliverables and Milestones • Documentation Standards
3. Design Thinking in the Capstone Project	<ul style="list-style-type: none"> • Applying Design Thinking Principles • User-Centric Problem Solving • Iterative Prototyping and Testing
4. Development Phase	<ul style="list-style-type: none"> • Implementing Front-End and Back-End Functionality • Version Control and Collaboration • Continuous Integration and Deployment
5. User Testing and Feedback	<ul style="list-style-type: none"> • Conducting User Tests • Gathering User Feedback • Iterative Design and Development
6. Finalising the Capstone Project	<ul style="list-style-type: none"> • Refining Features Based on Feedback • Performance Optimisation • Final Testing and Quality Assurance
7. Project Documentation and Reporting	<ul style="list-style-type: none"> • Creating Comprehensive Documentation • Technical Reports and User Manuals • Presenting Project Findings and Outcomes
8. Professional Development Skills	<ul style="list-style-type: none"> • Building a Professional Portfolio • Creating a Resume and Cover Letter • Job Search Strategies
9. Interview Preparation	<ul style="list-style-type: none"> • Behavioural and Technical Interview Techniques • Portfolio Presentation in Interviews • Handling Common Interview Questions
10. Networking and Industry Engagement	<ul style="list-style-type: none"> • Building a Professional Network • Participating in Industry Events • Online Presence and Social Media
11. Freelancing and Entrepreneurship	<ul style="list-style-type: none"> • Exploring Freelancing Opportunities • Starting a Web Design Business • Client Management and Contracts

12. Continued Learning and Skill Enhancement	<ul style="list-style-type: none">• Staying Updated with Industry Trends• Online Courses and Certifications• Joining Professional Organisations
13. Ethics and Professionalism in Web Design	<ul style="list-style-type: none">• Ethical Considerations in Web Design• Professional Conduct and Integrity• Responsibilities to Clients and Users
14. Final Project Presentation	<ul style="list-style-type: none">• Delivering a Professional Presentation• Showcasing Capstone Project Highlights• Handling Questions and Feedback
15. Course Reflection and Graduation	<ul style="list-style-type: none">• Reflecting on the Learning Journey• Graduation Ceremony and Certificates• Next Steps in Professional Development