

Conceptual Curriculum Map (CCM)

Content Area Applied Studies - Computer Science

Course Desktop and Web Design

Grade Level 9 - 12

Version 2: Curriculum Mapping in conjunction with Long-Term Outcomes

Unit 1	Transfer Goals: TG1: Students will use technology to seek feedback that informs and improves skills and demonstrates their learning. TG2: Students will be able to synthesize the career expectations of a web designer and web developer. GCT1: Students will be able to reflect, analyze, and evaluate evidence, arguments, claims and beliefs to draw conclusions.		
	Standards	Conceptual Overview	Rationale
Focus & Timeframe Careers in Web Design and Development and Ethics	1B-IC-21 - Use public domain or creative commons media, and refrain from copying or using material created by others without permission. 2-IC-21 - Discuss issues of bias and accessibility in the design of existing technologies. 3A-IC-24 - Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices. 3A-IC-29 - Explain the privacy concerns related to the collection and generation of data through automated processes that may not be evident to users.	Students will understand... • The expectations of a Web Designer; • The expectations of a Web Developer; • Ethical procedures that relate to the design and development of websites.	Students need to understand the career expectations for a web designer and web developer. Students need to understand what is considered ethical versus unethical when designing and/or developing a website.

	CSTA Practice 1 - Fostering an inclusive computing culture CSTA Practice 7 - Communicating about computing		
Unit 2	Transfer Goals: TG1: Students will break problems into component parts, take away key information, and develop solutions to facilitate problem solving. TG2: Students will use technology to seek feedback that informs and improves skills and demonstrates their learning. TG3: Using the design process, students will apply career knowledge and skills. TG4: Students will be able to analyze and evaluate web pages in order to develop an understanding of layout and components. GCT1: Students will be able to reflect, analyze, and evaluate evidence, arguments, claims and beliefs to draw conclusions.		
	Standards	Conceptual Overview	Rationale
Focus & Timeframe Layout	3A-AP-16 - Design and iteratively develop computational artifacts for practical intent, personal expression, or to address a societal issue. CSTA Practice 2 - Collaborating around computing CSTA Practice 7 - Communicating about computing	Students will understand... • The design process in terms of creating a webpage; • The components of a webpage; • Various types of web pages; • The purpose behind a webpage's design and development.	Students need to understand how the design process is essential in the design and development of a webpage in order to produce a high quality product.
Unit 3	Transfer Goals: TG1: Students will create computational artifacts, whether original or through responsibly repurposing or remixing digital resources into new creations. TG2: Using the design process, students will apply career knowledge and skills. TG3: Students will be able to follow a set of given criteria and constraints in order to produce the desired outcome using HTML programming language.		

	GCT1: Students will be able to reflect, analyze, and evaluate evidence, arguments, claims and beliefs to draw conclusions.		
	Standards	Conceptual Overview	Rationale
Focus & Timeframe HTML Basics	3A-AP-16 - Design and iteratively develop computational artifacts for practical intent, personal expression, or to address a societal issue. 3A-AP-21 - Evaluate and refine computational artifacts to make them more usable and accessible. CSTA Practice 5 - Creating Computational Artifacts CTS Practice 6 - Testing and Refining Computational Artifacts	Students will understand that... • Linguistic elements of HTML and what their function(s) are; • Linear programming language of HTML; • HTML commands to create web pages.	Students need to understand the basics of HTML are important for web design and development skills and knowledge.
Unit 4	Transfer Goals: TG1: Students will create computational artifacts, whether original or through responsibly repurposing or remixing digital resources into new creations. TG2: Using the design process, students will apply career knowledge and skills. TG3: Students will be able to follow a set of given criteria and constraints in order to produce the desired outcome using HTML and CSS programming languages. GCT1: Students will be able to reflect, analyze, and evaluate evidence, arguments, claims and beliefs to draw conclusions.		
	Standards	Conceptual Overview	Rationale
Focus & Timeframe Using HTML with CSS	3A-AP-16 - Design and iteratively develop computational artifacts for practical intent, personal expression, or to address a societal issue. 3B-AP-24 - Compare multiple programming languages and discuss how their features make them suitable for solving different types of problems.	Students will understand... • Linguistics elements of CSS and how they are correctly applied in conjunction with the basic elements of HTML; • CSS is integral in modern web design and development; • HTML and CSS commands.	Students need to understand the basics of CSS are important for web design and development skills and knowledge.

	CSTA Practice 5 - Creating Computational Artifacts CTS Practice 6 - Testing and Refining Computational Artifacts		
Unit 5	Transfer Goals: TG1: Students will create computational artifacts, whether original or through responsibly repurposing or remixing digital resources into new creations. TG2: Using the design process, students will apply career knowledge and skills. TG3: Students will be able to follow a set of given criteria and constraints in order to produce the desired outcome using HTML and CSS programming languages. TG4: Through reflection, analysis, and evaluation, students will be able to determine the importance of using CSS and HTML programming languages together. GCT1: Students will be able to reflect, analyze, and evaluate evidence, arguments, claims and beliefs to draw conclusions.		
	Standards	Conceptual Overview	Rationale
Focus & Timeframe Combining Web Development with Web Design	3A-AP-16 - Design and iteratively develop computational artifacts for practical intent, personal expression, or to address a societal issue. 3B-AP-24 - Compare multiple programming languages and discuss how their features make them suitable for solving different types of problems. CSTA Practice 5 - Creating Computational Artifacts CTS Practice 6 - Testing and Refining Computational Artifacts	Students will understand... • Linguistic elements of HTML and CSS; • Direct application of knowledge of HTML and CSS commands with learned knowledge of web design elements, principles and usability will create accessible, attractive, interesting, appealing web pages.	Students need to understand the roles of both HTML and CSS in a web designer or web developers job.
Unit 6	Transfer Goals: TG1: Students will break problems into component parts, take away key information, and develop solutions to facilitate problem solving.		

	TG2: Students will create computational artifacts, whether original or through responsibly repurposing or remixing digital resources into new creations. TG3: Using the design process, students will apply career knowledge and skills. TG4: Students will be able to determine the career expectations of a web designer and web developer. TG5: Students will be able to understand the importance of ethically creating web pages as both a web designer and developer. GCT1: Students will be able to reflect, analyze, and evaluate evidence, arguments, claims and beliefs to draw conclusions. GCT2: Students will be able to reconsider and revise thinking when presented with alternative points of view.		
	Standards	Conceptual Overview	Rationale
Focus & Timeframe Culminating Project Career	IB-AP-16 - Take on varying roles, with teacher guidance, when collaborating with peers during the design, implementation, and review stages of program development. IB-AP-17 - Describe choices made during program development using code comments, presentations, and demonstrations. 3A-IC-25 - Test and refine computational artifacts to reduce bias and equity deficits. CSTA Practice 1 - Fostering an inclusive computing culture CSTA Practice 2 - Collaborating around computing CSTA Practice 6 - Testing and refining computational artifacts CSTA Practice 7 - Communicating about computing	Students will understand... • The expectations of specific roles in the fields of web design and web development; • The need for a website to be analyzed and evaluated by various professionals.	Students need to understand there are numerous career paths within the career fields of web design and web development that all contribute to making high quality products.