FRONT-END WEB DEVELOPMENT SYLLABUS

In this 10-week course, students will be introduced to the basics of front-end web development. This lab-intensive course will cover building websites using HTML, CSS, adding interactivity through JavaScript, and programmatic thinking. This program is for students with little to no programming background. At times, it will feel challenging but we encourage our students to work collaboratively to trouble shoot and discuss code with their peers.

GRADING

In order for Students to pass the Front-end Web Development course at GA, students must:

- Complete and submit 80% of all course assignments (homework, labs, quizzes, project milestones). Students who miss more than 20% of assignments will not be eligible to pass the course. Students will receive instructor feedback for all assignments.

- Complete and submit the course final project, earning a satisfactory grade by completing all functional and technical requirements, including delivering a presentation.

	LESSON #	TOPIC	LEARNING OBJECTIVES
UNIT 1: HTML, CSS BASICS	1	**HTML Basics**	‣ Identify correct tags for content. ‣ Articulate the progression of HTML to HTML5. ‣ Describe the DOM and draw simple DOM tree.
	2	**CSS Basics**	‣ Apply and explain CSS “cascade” including: importance, specificity and inheritance. ‣ Define CSS selectors. ‣ Define separation of concerns.

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UNIT 1: HTML, CSS BASICS	3	**CSS Box Model**	‣ Define CSS Box Model, and demonstrate the ability to properly manipulate elements using padding, margin, and border. ‣ Articulate tag attributes and how they are used in a web page.
	4	**Page Layout**	‣ Differentiate between classes and IDs and apply best practices when implementing. ‣ Apply header, footer, sidebar, and multi-column layouts to develop a web page. ‣ Experiment and predict effects of floats and clearing CSS positioning.
	5	**Layout Lab**	Practice CSS Layouts.
	6	**The Basics Lab**	Practice web development skills by transforming a design comp into an HTML and CSS web page.
UNIT 2: ADDING INTERACTIVITY	7	**Intro To Programming**	‣ Practice programmatic thinking by writing pseudo code to solve a basic problem. ‣ Define websites behavior and the practical uses of JavaScript. ‣ Predict DOM output / changes by reading JS code.
	8	**Intro jQuery**	‣ Differentiate between jQuery and JavaScript, describe benefits of using them. ‣ Recognize jQuery syntax. ‣ Use selectors and jQuery functions to effectively manipulate the DOM.
	9	**Variables & Conditionals**	‣ Define variables and identify best cases to use them. ‣ Differentiate between strings, integers and floats. ‣ Apply conditionals to change control flow in a program.

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UNIT 2: ADDING INTERACTIVITY	10	**Functions**	‣ Describe arguments as they relate to functions. ‣ Predict values returned by a given function. ‣ Differentiate control flow between anonymous and named functions.
	11	**JavaScript Lab**	Apply programming skills to plan and build a card matching game.
	12	**Review & Refactor**	‣ Define refactoring and describe why it is important. ‣ Describe the concept of "this" as it applies within jQuery anonymous functions. ‣ Experiment and apply different debugging techniques code.
UNIT 3: BUILDING IN CONCERT	13	**Responsive Websites**	‣ Differentiate between fixed, responsive, fluid and elastic layouts. ‣ Apply CSS and JS to web sites to achieve a mobile site. ‣ Implement media queries to change layout on mobile devices.
	14	**Responsive Websites**	Learn how to analyze a web page in order to redesign it responsively.
	15	**Web Forms**	‣ Understand and apply form tags. ‣ Use JS to collect form data. ‣ Differentiate between types of inputs and use cases for each. ‣ Be able to perform pseudo-styling of input elements that the browser won't let us directly style.
	16	**To Do List Application**	Practice creating web applications in teams.

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UNIT 3: BUILDING IN CONCERT	17	**Instructor's Choice**	Instructors choose the agenda.
	18	**In Class Lab Time**	In class time to work on the final project.
	19	**Student's Choice**	Students choose the agenda.
	20	**Final Project Presentations**	Final project presentations