COURSE OUTLINE: CSD212 - WEB SCRIPTING LANG

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Course Code: Title	CSD212: WEB SCRIPTING LANGUAGES
Program Number: Name	2090: COMPUTER PROGRAMMER
Department:	COMPUTER STUDIES
Semesters/Terms:	21W
Course Description:	Students will be writing comprehensive cross-browser compatible client-side JavaScript applications. The course content will focus on using JavaScript to manipulate and enhance well-formed web pages. Students will learn JavaScript syntax and will be introduced to standard datatypes and classes available in modern client environments. They will also be introduced to event handling, first-class functions, and object-based programming using JavaScript prototypes. A significant portion of the course focuses on using the Document Object Model to create dynamic web pages. Students will learn debugging techniques using modern web developer tools.
Total Credits:	4
Hours/Week:	4
Total Hours:	0
Prerequisites:	CSD120
Corequisites:	There are no co-requisites for this course.
This course is a pre-requisite for:	CSD223, CSD320
Vocational Learning Outcomes (VLO's) addressed in this course: **Please refer to program web page for a complete listing of program outcomes where applicable.**	**2090 - COMPUTER PROGRAMMER** VLO 2 Contribute to the diagnostics, troubleshooting, documenting and monitoring of technical problems using appropriate methodologies and tools. VLO 3 Implement and maintain secure computing environments. VLO 6 Select and apply strategies for personal and professional development to enhance work performance. VLO 10 Cntribute to the development, documentation, implementation, maintenance and testing of software systems by using industry standard software development methodologies based on defined specifications and existing technologies/frameworks. VLO 11 Apply one or more programming paradigms such as, object-oriented, structured or functional programming, and design principles, as well as documented requirements, to the software development process.
Essential Employability Skills (EES) addressed in this course:	EES 1 Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience. EES 2 Respond to written, spoken, or visual messages in a manner that ensures effective communication.

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	EES 4 Apply a systematic approach to solve problems. EES 5 Use a variety of thinking skills to anticipate and solve problems. EES 6 Locate, select, organize, and document information using appropriate technology and information systems. EES 9 Interact with others in groups or teams that contribute to effective working relationships and the achievement of goals.
Course Evaluation:	Passing Grade: 50%, D A minimum program GPA of 2.0 or higher where program specific standards exist is required for graduation.
Other Course Evaluation & Assessment Requirements:	Quizzes & Tests 60% Assignments 40% 100% Grade Definition Grade Point Equivalent A+ 90 - 100% 4.00 A 80 - 89% B 70 - 79% 3.00 C 60 - 69% 2.00 D 50 - 59% 1.00 F (Fail)below 50% 0.00 CR (Credit) Credit for diploma requirements has been awarded. S Satisfactory achievement in field /clinical placement or non-graded subject area. U Unsatisfactory achievement in field/clinical placement or non-graded subject area. X A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course. NR Grade not reported to Registrar`s office. W Student has withdrawn from the course without academic penalty. OTHER EVALUATION CONSIDERATIONS 1. In order to pass this course the student must obtain an overall test/quiz average of 50% or better, as well as, an overall assignment average of 50% or better. A student who is not present to write a particular test/quiz, and does not notify the professor beforehand of their intended absence, may be subject to a zero grade on that test/quiz. 2. There will be no supplemental or make-up quizzes/tests in this course unless there are extenuating circumstances. 3. Assignments must be submitted by the due date according to the specifications of the professor. Late assignments will normally be given a mark of zero. Late assignments will only be marked at the discretion of the professor in cases where there were extenuating circumstances. 4. Any assignment/projects submissions, deemed to be copied, will result in a zero grade being assigned to all students involved in that particular incident.

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5. It is the responsibility of the student to ask the professor to clarify any assignment requirements.

6. The professor reserves the right to modify the assessment process to meet any changing needs of the class.

Books and Required Resources:

Eloquent JavaScript by Marijn Haverbeke
Publisher: No Starch Press Edition: 3rd
ISBN: 978-1593279509
https://eloquentjavascript.net/

Course Outcomes and Learning Objectives:

Course Outcome 1	**Learning Objectives for Course Outcome 1**
1. Introduction to JavaScript	1.1 Describe the differences between client-side and server-side scripting 1.2 Understand the components of a JavaScript statement Add basic JavaScript code to your web pages 1.3 Structure your JavaScript programs
Course Outcome 2	**Learning Objectives for Course Outcome 2**
2. Functions, Data Types and Operators	2.1 Use functions to organize your JavaScript code 2.2 Use expressions and operators 2.3 Identify the order of operator precedence in an expression
Course Outcome 3	**Learning Objectives for Course Outcome 3**
3. Building Arrays and Control structures	3.1 Store data in arrays 3.2 Use while statements, do/while statements, and for statements to repeatedly execute code 3.3 Use continue statements to restart looping statements 3.4 Use if statements, if/else statements, and switch statements to make decisions 3.5 Nest one if statement in another
Course Outcome 4	**Learning Objectives for Course Outcome 4**
4. Debugging and Error Handling	4.1 Recognize error types 4.2 Trace errors with dialog boxes and the console 4.3 Use comments to locate bugs 4.4 Trace errors with debugging tools 4.5 Write code to respond to exceptions and errors
Course Outcome 5	**Learning Objectives for Course Outcome 5**
5. The Document Object Model (DOM) and DHTML	5.1 Access elements by id, tag name, class, name, or selector 5.2 Access element content, CSS properties, and attributes 5.3 Add and remove document nodes 5.4 Create and close new browser tabs and windows with an app 5.5 Use the setTimeout() and setInterval() methods to specify a delay or a duration • Use the History, Location, Navigation, and Screen objects to manipulate the browser window
Course Outcome 6	**Learning Objectives for Course Outcome 6**

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6. Enhancing and Validating Forms	6.1 Enhance form usability with JavaScript 6.2 Customize browser-based HTML validation 6.3 Implement custom validation to check for errors and display error messages
Course Outcome 7	**Learning Objectives for Course Outcome 7**
7. Object Oriented JavaScript	7.1 Explain basic concepts related to object-oriented programming 7.2 Use the Date, Number, and Math objects 7.3 Define your own custom JavaScript objects
Course Outcome 8	**Learning Objectives for Course Outcome 8**
8. Manipulating Data in Strings and Arrays	8.1 Manipulate strings with properties and methods of the String object 8.2 Create regular expressions and use them to validate user input 8.3 Manipulate arrays with properties and methods of the Array object 8.4 Convert between strings and arrays, and between strings and JSON

Evaluation Process and Grading System:

Evaluation Type	Evaluation Weight
Labs	40%
Tests	60%

Date: July 22, 2020

Addendum: Please refer to the course outline addendum on the Learning Management System for further information.