



Information and Communication Technology

BCcampus Online Collaborative Program

Computer Support Technician Certificate (CST)

Web Development 2 – ICT 212

Course Outline

COURSE IMPLEMENTATION DATE: September 2014
OUTLINE EFFECTIVE DATE: September 2015
COURSE OUTLINE REVIEW DATE: June 2020

GENERAL COURSE DESCRIPTION:

Today's web developer must know much more than the basic HTML and basic scripting languages of years past. This course is intended as a first course in JavaScript programming. Basic programming concepts are covered, including data representation, functions, control structures and arrays. This is followed by detailed discussions of object-oriented programming and design issues. The bulk of the remaining material covers error handling, security, the document object model and dynamic HTML.

Information about this document: This Course Outline describes the curriculum of the CST Collaborative. Individual CST courses may be delivered by any one of the participating institutions within the collaborative. When this course is delivered by COTR, any differences, additions or specific configurations will be clearly identified.

Program Information: This course is a required course for the Web Development specialty of the CST program. It can also be used as an elective for a more general CST Certificate.

Delivery: This course is delivered online.

COTR Credits: 3

Typical Structure of Instructional Hours:

Instructional Activity	Duration
Lecture Hours	
Seminars / Tutorials	
Laboratory / Studio Hours	
Practicum / Field Experience Hours	
Other Contact Hours*	45
Total	45

Practicum Hours (if applicable):

Type of Practicum	Duration
On-the-job Experience	N/A
Formal Work Experience	N/A
Other	N/A
Total	

Other Contact Hours

- Theoretical aspects of all courses are delivered online. Each course requires extensive hands-on practice of a laboratory/home workshop nature.

Course Outline Author or Contact:

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Signature**APPROVAL SIGNATURES:**

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EDCO

Valid from: September 2015 – June 2020

Education Council Approval Date**COURSE PREREQUISITES AND TRANSFER CREDIT:****Prerequisites:** CST Certificate Program Admission**Corequisites:** None**Flexible Assessment (FA):**

Credit can be awarded for this course through FA

 Yes No

Learners may request formal recognition for flexible assessment at the College of the Rockies through one or more of the following processes: External Evaluation, Worksite Assessment, Demonstration, Standardized Test, Self-assessment, Interview, Products/Portfolio, Challenge Exam. Contact an Education Advisor for more information.

Transfer Credit: For transfer information within British Columbia, Alberta and other institutions, please visit <http://www.cotr.bc.ca/Transfer>.

Students should also contact an academic advisor at the institution where they want transfer credit.

Prior Course Number: N/A

Textbooks and Required Resources:

Textbook selection varies by instructor and may change from year to year. At the Course Outline Effective Date the following textbooks were in use:

Don Gosselin. *JavaScript: The Web Technologies Series, 5th Edition*, ISBN: 978-0-5387-4887-2. An e-book version is also available.

Recommended Text:

David Flanagan. *JavaScript: The Definitive Guide, 6th Edition*, ISBN: 978-0-596-80552-4
An e-book version is also available.

Program hardware and software requirements are detailed in the ICT Program Outline.

Please see the instructor's syllabus or check COTR's online text calculator http://www.cotr.bc.ca/bookstore/cotr_web.asp?IDNumber=164 for a complete list of the currently required textbooks.

LEARNING OUTCOMES:

Upon the successful completion of this course, students should be able to

- work with JavaScript objects, functions, data types, data operators, arrays and control structures;
 - validate web form data using JavaScript;
 - manipulate data in strings and arrays;
 - perform JavaScript debugging and error handling activities;
 - manage connection state information and data security; and
 - create valid Dynamic HTML (DHTML).
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COURSE TOPICS:

Units:

1. Introduction to JavaScript.
2. Working with Data Types and Operators.
3. Working with Functions, Events, and Control Structures
4. Manipulating the Browser Object Model.
5. Validating Form Data with JavaScript
6. Using Object-Oriented JavaScript
7. Mid-term Exam
8. Manipulating Data in Strings and Arrays
9. Debugging and Error Handling

10. Managing State Information and Security
11. Introduction to the Dynamic Object Model (DOM)
12. Creating Dynamic HTML (DHTML)
13. Updating Web Pages with AJAX
14. Final Course Review
15. Final Exam Lab

See instructor's syllabus for the detailed outline of weekly readings, activities and assignments.

ESSENTIAL SKILLS DEVELOPED IN THIS COURSE:

Students can expect to develop the following skills in this course:

Computer Skills

- Recognize basic computer components (e.g. monitor, hard drive) and terminology
- Start the computer, log in, start a program
- Create a simple document in Word
- Perform basic document editing
- Understand file management: save, store and retrieve documents
- Use email to send and read messages, attach documents
- Print documents
- Access COTR's online learning resources

Skills for Busy Students

- Manage study time effectively
 - Develop problem-solving and memory skills
 - Use support systems and College resources
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EVALUATION AND ASSESSMENT - ICT Collaborative:

Assignments	% Of Total Grade
Assignments	30%
Quizzes	20%
Midterm	20%
Final Exam	<u>30%</u>
Total	100%

Please see the instructor's syllabus for specific classroom policies related to this course, such as details of evaluation, penalties for late assignments and use of electronic aids.

EXAM POLICY:

Students must attend all required scheduled exams that make up a final grade at the appointed time and place.

Individual instructors may accommodate for illness or personal crisis. Additional accommodation will not be made unless a written request is sent to and approved by the appropriate Department Head prior to the scheduled exam.

Any student who misses a scheduled exam without approval will be given a grade of "0" for the exam.

COURSE GRADE:

Course grades are assigned as follows:

Grade	A+	A	A-	B+	B	B-	C+	C	C-	D	F
Mark (Percent)	≥ 90	89- 85	84- 80	79- 76	75- 72	71- 68	67- 64	63- 60	59- 55	54- 50	< 50

A grade of "D" grants credit, but may not be sufficient as a prerequisite for sequential courses.

ACADEMIC POLICIES:

See www.cotr.bc.ca/policies for general college policies related to course activities, including grade appeals, cheating and plagiarism.

Computer Course Requirements/Policies:

Any student found either making copies of our network files, or using an unauthorized copy of our programs will be required to withdraw from this course. A second offence in any course may result in an automatic expulsion from the program.

COURSE CHANGES:

Information contained in course outlines is correct at the time of publication. Content of the courses is revised on an ongoing basis to ensure relevance to changing educational, employment and marketing needs. The instructor endeavours to provide notice of changes to students as soon as possible. The instructor reserves the right to add or delete material from courses.