# COURSE SYLLABUS

COURSE TITLE:	ICS128 Web Scripting
CLASS SECTION:	X03A, X03B
TERM:	Winter 2024
COURSE CREDITS:	3
DELIVERY METHOD(S):	Face-to-face



Camosun College campuses are located on the traditional territories of the Ləḱ<sup>w</sup>əŋən and WSÁNEĆ peoples. We acknowledge their welcome and graciousness to the students who seek knowledge here. Learn more about Camosun's Territorial Acknowledgement.

For COVID-19 information please visit https://legacy.camosun.ca/covid19/index.html.

Camosun College requires mandatory attendance for the first class meeting of each course. If you do not attend, and do not provide your instructor with a reasonable explanation in advance, you will be removed from the course and the space offered to the next waitlisted student.

INSTRUCTOR DETAILS		
NAME:	Brandon Devnich	
EMAIL:	devnichb@camosun.bc.ca	
OFFICE:	TEC240	
HOURS:	Tuesdays 12:30-1:30pm, Wednesdays 11:30-2:30pm	
As your course instructor, I endeavour to provide an inclusive learning environment. However, if you experience		

barriers to learning in this course, do not hesitate to discuss them with me. Camosun College is committed to identifying and removing institutional and social barriers that prevent access and impede success.

## CALENDAR DESCRIPTION

Students will expand their knowledge in website building by adding dynamic and interactive components. Through applied activities, students will be introduced to how client-side scripts interact with server-side programs and back-end concepts and tools for end-to-end (e.g., full-stack) web development.

PREREQUISITE(S):	C in ICS 118 or C in COMP 144
CO-REQUISITE(S):	-
EXCLUSION(S):	-

# COURSE LEARNING OUTCOMES / OBJECTIVES

For this course, students will analyze, build and test interactive web pages using current browser scripting languages and environments through hands-on projects. You will apply data validation techniques with scripting languages as an introduction to data security.

Upon successful completion of this course a student will be able to:

- Apply fundamental programming concepts including the understanding and application of data types, arithmetic and logical operations, decision making statements, and control structures to solve problems;
- Describe the differences between client side and server-side architecture concepts.
- Identify, locate, install and/or create appropriate resources and tools to support client-side scripting and validate user input;
- Implement client-side interfaces through the use of modern scripting languages;
- Implement web scripts to access and use web services for dynamic content;
- Apply professional standards (Canadian and international) to ensure legal and ethical use of tools and resources in the client-side scripting processes;
- Use written and electronic communication to convey technical information effectively; and
- Implement Server Side Includes (SSI) scripts for basic form processing (time permitting).

## REQUIRED MATERIALS & RECOMMENDED PREPARATION / INFORMATION

- Materials on the D2L course page: presentation slides for lectures, lab assignment instructions for labs, etc. see https://online.camosun.ca/d2l/home/277039
- We also use the following online resources for reference:
  - o <u>https://www.w3schools.com</u>
  - o <a href="https://developer.mozilla.org/en-US/docs/Web/JavaScript">https://developer.mozilla.org/en-US/docs/Web/JavaScript</a>
- Recommended Textbooks (also relevant for ICS 199):

## Javascript: Visual Quickstart Guide (9th Edition)

- Dori Smith, Tom Negrino
- ISBN-13 978-0321996701
- ISBN-10: 031996704

#### **General Schedule**

The course will meet in-person, four times per week over a 14-week semester. Each week will consist of three one-hour lectures and one two-hour lab. Additional time over and above the allotted lab time may be required to complete lab assignments.

Lectures will be delivered in-person at regular times. Recordings of lectures may be made available. Labs will be assigned and then due before the next scheduled lab block.

Please see lecture and lab schedule at <u>http://my.camosun.ca</u> for detailed information about class hours and locations. Please consult the calendar tool in D2L frequently for any updates.

#### Topics

Lectures will contain topics that will help you complete the weekly lab. These topics will teach you the basics of web scripting using JavaScript and PHP. Please see course schedule and topics table below for more detail.

#### Activities

During lectures, you will have the opportunity to participate in in-class code practice. You will receive a bonus participation mark, worth up to 5%, upon completion of the course, based upon the number of in-class examples you participate in. You will submit these up to your allocated course web space.

There will be weekly at-home open-book quizzes to reinforce your comprehension of course material covered during the week. You will have unlimited opportunities to complete each quiz before their weekly due date.

The instructor will be available, in person, during the regularly scheduled lab times. While labs can be done from home, provided you have an internet connection, students who attend lab in-person will receive priority assistance.

You may earn bonus marks by completing your lab assignments early. 10% (of the lab mark, or 4% of the course mark) bonus marks on assignments are available if you submit your lab assignment 6 days ahead of the due date.

There will be two term practical tests that will function to assess your understanding of JavaScript.

#### **Expected Workload**

For highest results, you should expect to spend, outside of scheduled lecture and lab times, on average an additional 1-2 hours weekly to complete lab assignments, practice examples, review material, and complete quizzes. During the term project, you should expect to invest a significant amount more time in order to achieve the highest of marks.

#### Evaluation

You will be evaluated regularly through the at-home quizzes, completion of the weekly labs, and results of the term tests. Building towards the final exam, you will complete the applied learning assignments which will

further give you practice applying the knowledge you acquire through the course. At the end of the course, you will complete a practical exam.

# Schedule of Sessions and Topics

The following schedule and course components are subject to change with reasonable advance notice, as deemed appropriate by the instructor.

The content of lectures is organized around:

- Week 1: Introduction, Logistics, Intro to JS
- Week 2: Intro to JS: primitives, variables, objects & arithmetic operators
- Week 3: Conditional Iteration, working with functions
- Week 4: JS Math, dates, error handling, scope, timers, and arrays
- Week 5: DOM events, expressions, JS ES6
- Week 6: JavaScript ES6 template literals, destructuring arrays and objects, working with classes
- Week 7: Reading Break
- Week 8: async/await, Intro to jQuery + Events
- Week 9: jQuery Effects, collections (navigating the DOM), properties, attributes & data
- Week 10: jQuery UI Basics, JSON, Fetch, AJAX
- Week 11: Term Test 2, Intro to PHP, Server Side Data
- Week 12: PHP control structures and arrays, cookies, sessions, connecting to databases
- Week 13: Term Project
- Week 14: Course Review

Topics of the labs will include:

- Lab 1: Writing Basic JavaScript
- Lab 2: Using Conditional & Iterative Statements
- Lab 3: Using Functions and Error Handling
- Lab 4: Using Arrays and DOMs
- Lab 5: Using Regular Expressions
- Lab 6: Working with Objects
- Lab 7: jQuery, Timers, & Events
- Lab 8: jQuery UI / Bootstrap
- Lab 9: AJAX/JSON
- Lab 10: Server-Side Interaction [Time Permitting]

The course will conclude with a final project with class demonstration.

Please see lecture and lab schedule at <u>http://my.camosun.ca</u> for detailed information about class hours and locations. Please consult the calendar tool in D2L frequently for any updates.

The following schedule and course components are subject to change with reasonable advance notice, as deemed appropriate by the instructor.

Week	Topics	Assignments
1	Course Outline & Logistics Intro to JavaScript	Lab 0 – Term Project Planning
2	Variables, Primitives, Objects Program Flow	Lab 1 – Writing basic JavaScript to populate a table
3	Functions Built in Libraries Error Handling	Lab 2 – Using Conditional & Iterative statements
4	Arrays	Lab 3 – Using Functions and Error Handling
5	Events & Regular Expressions Term Test 1 (Week 1-5)	Lab 4 – Using Arrays and DOMS
6	Destructuring Classes	Lab 5 – Using Regular expressions
7	Reading Break	Term Project Plan
8	Async, Await, Promises Intro to jQuery	Lab 6 – Working with Objects
9	jQuery	Lab 7 - Build a Quiz
10	Data Communication	Lab 8 – jQuery, Timers, Events
11	Term Test 2 (W6-W10) Intro to PHP	Lab 9 - Ajax JSON
12	РНР	Lab 10 – Server Side
13	Term Project	Term Project
14	Course Review / Project Demos	Term Project

Students registered with the Centre for Accessible Learning (CAL) who complete quizzes, tests, and exams with academic accommodations have booking procedures and deadlines with CAL where advanced noticed is required. Deadlines scan be reviewed on the <u>CAL exams page</u>. <u>http://camosun.ca/services/accessible-learning/exams.html</u>

DESCRIPTION	WEIGHTING
Quizzes Ten, at home, open-book quizzes. Unlimited opportunities to complete each quiz.	10%
Lab Assignments Labs 1-10 Must achieve minimum average 55%, and complete <b>all</b> assignments.	30%
<b>Term Project</b> Must achieve minimum 55%	10%
<b>Practical Term Tests</b> Three written practical term tests. Must achieve minimum average 55%.	25%
Final Practical Exam Open book, must achieve minimum 55% in order to pass the course.	25%
TOTAL	100%
Lecture Participation Completion of 20 lecture in-class examples.	5% BONUS

If you have a concern about a grade you have received for an evaluation, please come and see me as soon as possible. Refer to the <u>Grade Review and Appeals</u> policy for more information. <u>http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.14.pdf</u>

# COURSE GUIDELINES & EXPECTATIONS

Late assignments and/or labs will not be accepted, except by the instructor's prior written permission or in the presence of a dire and documented short-term medical or family emergency. Student must complete all labs.

Students must achieve

- a minimum 55% average over the two term tests
- a minimum 55% on the term project
- a minimum 55% final exam grade

to pass the course.

All quizzes are closed book.

## SCHOOL OR DEPARTMENTAL INFORMATION

Supplemental department policies:

Grade review: You have 7 days after marks are posted to review with your instructor.

#### Academic Integrity Violations:

• 1st violation: minus the weight of the deliverable and a note on your departmental file.

- 2nd violation: F in the course
- 3rd violation: Student Conduct Policy E-2.5 is applied

**Missed Examinations/Quizzes:** If a student misses a quiz, project or an exam, a mark of zero will be assigned unless there are extenuating circumstances. You must provide a note from a medical practitioner (Doctor, Nurse, Psychologist, Counsellor, etc.) In such cases, the proportion of grade assigned to the missed quiz or exam will be added to the proportion assigned to the final exam. The final project will be due at the end of last week of lectures. NO consideration will be given to any student wishing to complete project the at any other time than that assigned.

**Electronic Devices:** The school's policy regarding electronic devices is that any student who has a cell phone or other unauthorized electronic device (ie. ipad, laptop, playbook, etc.) on their person or around their desk during an exam will be guilty of cheating and will a grade of "F" for the course.

## STUDENT RESPONSIBILITY

Enrolment at Camosun assumes that the student will become a responsible member of the College community. As such, each student will display a positive work ethic, assist in the preservation of College property, and assume responsibility for their education by researching academic requirements and policies; demonstrating courtesy and respect toward others; and respecting expectations concerning attendance, assignments, deadlines, and appointments.

## SUPPORTS AND SERVICES FOR STUDENTS

Camosun College offers a number of services to help you succeed in and out of the classroom. For a detailed overview of the supports and services visit <u>http://camosun.ca/students/</u>.

Support Service	Website
Academic Advising	http://camosun.ca/advising
Accessible Learning	http://camosun.ca/accessible-learning
Counselling	http://camosun.ca/counselling
Career Services	http://camosun.ca/coop
Financial Aid and Awards	http://camosun.ca/financialaid
Help Centres (Math/English/Science)	http://camosun.ca/help-centres
Indigenous Student Support	http://camosun.ca/indigenous
International Student Support	http://camosun.ca/international/
Learning Skills	http://camosun.ca/learningskills
Library	http://camosun.ca/services/library/
Office of Student Support	http://camosun.ca/oss

Support Service	Website
Ombudsperson	http://camosun.ca/ombuds
Registration	http://camosun.ca/registration
Technology Support	http://camosun.ca/its
Writing Centre	http://camosun.ca/writing-centre

If you have a mental health concern, please contact Counselling to arrange an appointment as soon as possible. Counselling sessions are available at both campuses during business hours. If you need urgent support after-hours, please contact the Vancouver Island Crisis Line at 1-888-494-3888 or call 911.

## COLLEGE-WIDE POLICIES, PROCEDURES, REQUIREMENTS, AND STANDARDS

# Academic Accommodations for Students with Disabilities

The College is committed to providing appropriate and reasonable academic accommodations to students with disabilities (i.e. physical, depression, learning, etc). If you have a disability, the <u>Centre for Accessible</u> <u>Learning</u> (CAL) can help you document your needs, and where disability-related barriers to access in your courses exist, create an accommodation plan. By making a plan through CAL, you can ensure you have the appropriate academic accommodations you need without disclosing your diagnosis or condition to course instructors. Please visit the CAL website for contacts and to learn how to get started: <a href="http://camosun.ca/services/accessible-learning/">http://camosun.ca/services/accessible-learning/</a>

## Academic Integrity

Please visit <u>http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.13.pdf</u> for policy regarding academic expectations and details for addressing and resolving matters of academic misconduct.

## Academic Progress

Please visit <u>http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.1.pdf</u> for further details on how Camosun College monitors students' academic progress and what steps can be taken if a student is at risk of not meeting the College's academic progress standards.

## Course Withdrawals Policy

Please visit <u>http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.2.pdf</u> for further details about course withdrawals. For deadline for fees, course drop dates, and tuition refund, please visit <u>http://camosun.ca/learn/fees/#deadlines</u>.

## **Grading Policy**

Please visit <u>http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf</u> for further details about grading.

#### Grade Review and Appeals

Please visit <u>http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.14.pdf</u> for policy relating to requests for review and appeal of grades.

#### Mandatory Attendance for First Class Meeting of Each Course

Camosun College requires mandatory attendance for the first class meeting of each course. If you do not attend, and do not provide your instructor with a reasonable reason in advance, you will be removed from the course and the space offered to the next waitlisted student. For more information, please see the "Attendance" section under "Registration Policies and Procedures" (<u>http://camosun.ca/learn/calendar/current/procedures.html</u>) and the Grading Policy at <u>http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf</u>.

#### Medical / Compassionate Withdrawals

Students who are incapacitated and unable to complete or succeed in their studies by virtue of serious and demonstrated exceptional circumstances may be eligible for a medical/compassionate withdrawal. Please visit <a href="http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.8.pdf">http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.8.pdf</a> to learn more about the process involved in a medical/compassionate withdrawal.

#### Sexual Violence and Misconduct

Camosun is committed to creating a campus culture of safety, respect, and consent. Camosun's Office of Student Support is responsible for offering support to students impacted by sexual violence. Regardless of when or where the sexual violence or misconduct occurred, students can access support at Camosun. The Office of Student Support will make sure students have a safe and private place to talk and will help them understand what supports are available and their options for next steps. The Office of Student Support respects a student's right to choose what is right for them. For more information see Camosun's Sexualized Violence and Misconduct Policy: http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.9.pdf and camosun.ca/sexual-violence. To contact the Office of Student Support: oss@camosun.ca or by phone: 250-370-3046 or 250-3703841

#### Student Misconduct (Non-Academic)

Camosun College is committed to building the academic competency of all students, seeks to empower students to become agents of their own learning, and promotes academic belonging for everyone. Camosun also expects that all students to conduct themselves in a manner that contributes to a positive, supportive, and safe learning environment. Please review Camosun College's Student Misconduct Policy at <a href="http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.5.pdf">http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.5.pdf</a> to understand the College's expectations of academic integrity and student behavioural conduct.

**Changes to this Syllabus:** Every effort has been made to ensure that information in this syllabus is accurate at the time of publication. The College reserves the right to change courses if it becomes necessary so that course content remains relevant. In such cases, the instructor will give the students clear and timely notice of the changes.