ACIT 1620
Fundamental Web Technologies

Program	Computer Information Technology Diploma
Course Credits	4
Minimum Passing Grade	50%
Start Date	January 06, 2025
End Date	April 17, 2025
Total Hours	60
Total Weeks	15
Hours/Weeks	4
Delivery Type	Lecture
Prerequisite(s)	• *No prerequisites are required for this course.*
CRN	89205

Acknowledgement of Territories

The British Columbia Institute of Technology acknowledges that our campuses are located on the unceded traditional territories of the Coast Salish Nations of Sḵwx̱wú7mesh [1] (Squamish), səl̓ilwətaʔɬ [2] (Tsleil-Waututh), and xwməθkwəy̓əm [3] (Musqueam).

Instructor Details

Name	Akila Ramani
E-mail	akila_ramani@bcit.ca
Location	DTC 617
Office Hours	Tuesday 11:30 am - 12:30 pm (Online - with prior appointment) Thursday 11:30 am - 12:30 pm (Online - with prior appointment)

Course Description

This course introduces the fundamental principles, concepts, and techniques for understanding and developing modern web sites. Topics include: underlying infrastructure and technologies that make the web works; building the structure of webpages with HTML; styling text and content with CSS; dynamically updating the content and style of pages with client-side scripting techniques. This course is intended as the foundation for more advanced web courses.

Course Learning Outcomes/Competencies

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

- Explain the underlying infrastructure of internet.
- Describe client/server interactions and communications.
- Demonstrate an in-depth understanding of how HTTP protocol works.
- Explain anatomy of a URL and its relationship to the location of a resource.
- Explain the processes involved in rendering websites in browsers.
- Develop W3C compliant web pages by hand using HTML.
- Customize layout of responsive web pages using CSS.
- Use Document Object Model (DOM) tree structure to describe the relationship between HTML elements.
- Utilize CSS selectors to access and interact with DOM elements.
- Develop client-side scripting with JavaScript to handle propagating user events.
- Diagnose errors with browser developer tools.
- Use version control tool to track different versions of code.
- Publish static web pages.

Learning Resources

Software

- Chrome and Firefox browsers
- Visual Studio Code
- PowerShell, bash, or command line equivalent

Textbook

There is no required text book for this course. Online resources will be posted on D2L for weekly course readings and activities. Various books and references will be recommended in class.

Course Goals

- Use HTML and CSS to structure and style web content
- Use JavaScript to add interactivity and respond to browser events
- Use version control with git and GitHub
- Publish static web pages on the Internet

Evaluation Criteria

Criteria	%	Comments
Quizzes and lab work	10	Online and in class quizzes
Evalutaion 1	10	In class assignment, individual
Midterm Exam	20	
Evaluation 2	10	In class assignment, individual
Project	10	
Final Exam	40	

Attendance Requirements

Regular attendance in classes is critical to student success, and is monitored. Unapproved absence of 2 or more classes may result withdrawal from the course or program. Please see: Policy 5101 - Student Regulations [4] .

Course Specific Requirements

This course includes mandatory online learning activities. Lack of participation in the online portion of this class may result in failure or forced withdrawal from the course.

Course Schedule and Assignments

Week	Week Starting	Topics	Evaluation

1	Jan 6	Course introduction, computer setup. How the Internet works. How the web works. Introduction to HTML.	Quiz
2	Jan 13	HTML continued: links, images, generic and semantic elements. Understanding paths (absolute / relative).	Quiz
3	Jan 20	Introduction to CSS: selectors and styles. The box model. Layout and positioning (flex).	Quiz
4	Jan 27	HTML and CSS continued. Advanced selectors.	
5	Feb 3	**EVALUATION 1**	Assignment due in class
6	Feb 10	Responsive design and layouts. Introduction to version control. Publish with GitHub Pages.	Quiz
7	Feb 17	Midterm review (lab work)	
8	Feb 24	**MIDTERM EXAM WEEK**	Midterm exam
9	Mar 3	Introduction to JavaScript: syntax, flow and logic.	Quiz
10	Mar 10	JavaScript continued: lab work.	
11	Mar 17	JavaScript in the browser: manipulating the DOM, events.	Quiz
12	Mar 24	**EVALUATION 2**	Assignment due in class
13	Mar 31	Project work: develop a complete web application	
14	Apr 7	Course review, project work.	
15	Apr 14	**FINAL EXAM WEEK**	Final exam

BCIT Policy

The following statements are in accordance with the BCIT Policies 5101, 4501, 5103, 5104, and 7507, and their accompanying procedures. To review these policies and procedures please click on the links below.

Attendance
In case of illness or other unavoidable cause of absence, the student must communicate as soon as possible with their instructor or Program/Department Head, stating the reason for the absence. When absences result in missed safety requirements, exams, or other deadlines, an instructor or Program/Department Head may request appropriate supporting documentation, including a medical note. For all other absences, the student is responsible to ensure they seek out missed information, preferably from a classmate or recording (when available). Please see BCIT Policy 5101 - Student Regulations [5], and accompanying procedures, for more information.

Attempts
As stated in BCIT Policy 5103 - Student Evaluation [6], students must successfully complete a course within a maximum of three (3) attempts at the course. Students with two attempts in a single course will be allowed to repeat the course only upon permission from the Associate Dean. Students who have not successfully completed a course within three attempts will not be eligible to graduate from their respective program. For those courses or programs that have Education Council approval, the number of attempts as stated in the evaluation section of the course outline shall apply.

Academic Integrity
It is the responsibility of all students to be familiar with the Student Code of Academic Integrity. Violations of the Code, including plagiarism, cheating, misrepresentation, and academic advantage, are prohibited and will be handled in accordance with BCIT Policy 5104 – Student Code of Academic Integrity [7], and accompanying procedures.

Accommodation
Any student who may require accommodation from BCIT because of a physical or mental disability should refer to BCIT's Policy 4501 - Accommodation for Students with Disabilities [8], and contact BCIT's Accessibility Services (SW1 2360, 604-451-6963) at the earliest possible time. Requests for accommodation must be made to Accessibility Services, and should not be made to a course instructor or Program area.

Any student who needs special assistance in the event of a medical emergency or building evacuation (either because of a disability or for any other reason) should promptly inform their course instructor(s) and Accessibility Services of their personal circumstances.

Human Rights, Harassment and Discrimination
The BCIT community is made up of individuals from every ability, background, experience and identity, each contributing uniquely to the richness and diversity of the BCIT community as a whole. In recognition of this, and the intrinsic value of our diversity, BCIT seeks to foster a climate of collaboration, understanding and mutual respect between all members of the community and ensure an inclusive accessible working and learning environment where everyone can succeed. Respect, Diversity, and Inclusion [9] is a supportive resource for both students and employees of BCIT, to foster a respectful learning and working environment. Any student who feels that they are experiencing discrimination or harassment (personal or human rights-related) can confidentially access this resource for advice and support. Please see BCIT Policy 7507 – Harassment and Discrimination [10] and accompanying procedure.

Students should make themselves aware of additional Education, Administration, Safety and other BCIT policies listed at https://www.bcit.ca/about/administration/policies.shtml [11]

Guidelines for

Attendance:
As set out in BCIT Policy 5101 Student Regulations [12] , regular attendance in lectures and labs is integral to student success. Therefore, attendance in class is monitored.

Students are responsible for communicating with instructors proactively about both potentially approved and unexcused absences. It is the student's responsibility to work with their instructor to find an effective means to complete work missed due to both approved and unexcused absences.

Students who are seeking accommodation for a medical absence must have a BCIT-approved medical certificate [13] . For other absences, students must be prepared to provide appropriate supporting documentation. If absences are the result of a medical or other accommodation, notification from Accessibility Services personnel will be accepted in lieu of a doctor's note, on an interim basis.

Additionally, attendance for certain assignments, tests, projects, team or group work, safety or equipment training or other course activities such as work integrated learning, as well as participation in discussion groups or other online activities may be deemed mandatory by instructors and may be evaluated as a component of a course in categories such as participation or professionalism..

A student who has ceased to attend a course without explanation before the withdrawal deadline (two-thirds of the way through the course) will receive a Vanished (V) grade. The V grade is calculated into the GPA as a 0 (zero).

These requirements are set out in accordance with both BCIT Policy 5101 Student Regulations [14] and BCIT Policy 5103 Student Evaluation [15]

More information regarding withdrawal deadlines is available at Academic Dates & Deadlines [16] .

Academic Integrity and Use of Artificial Intelligence:
The unauthorized use of Artificial Intelligence tools (such as ChatGPT) for any part of student work in this course is prohibited, and, when identified by your instructor, will result in an academic integrity violation. See BCIT Policy 5104 Student Code of Academic Integrity. [17]

A violation of academic integrity may result in one or more of the following consequences:

1. A written warning;
2. Required resubmission of the work in question for equal or lower grade value;
3. A lower grade on the work submitted (i.e. a penalty applied);
4. A failing grade on the work submitted; or
5. An academic misconduct letter being placed on the student's record.

IMPORTANT: A lack of familiarity with the regulations cannot be used as a defence by those found to have violated academic integrity policy. It is the **student's responsibility** to become familiar with the rules.

Approved

I verify that the content of this course outline is current.
Akila Ramani, Instructor
January 02, 2025

I verify that this course outline has been reviewed.
Thomas Lane, Program Head
January 20, 2025

I verify that this course outline has been reviewed and complies with BCIT policy.
Donna Turner, Associate Dean
January 21, 2025

Note: Should changes be required to the content of this course outline, students will be given reasonable notice.

List of links found on this page

This list includes all links found on this page for your reference.

[1] https://www.squamish.net/
[2] https://twnation.ca/
[3] https://www.musqueam.bc.ca/
[4] https://www.bcit.ca/files/pdf/policies/5101.pdf
[5] https://www.bcit.ca/files/pdf/policies/5101.pdf
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