
SYLLABUS

EXSM 3931: Web Development Foundations

Full Stack Web Development Diploma Program

Faculty of Extension | University of Alberta

Course Dates: July 26, 2021 - August 22, 2021

Location/Format: Online (Synchronous)

Course instructor(s) and contact information:	Aaron Champagne achampagne@ualberta.ca Warren Uhrich wuhrich@ualberta.ca Responses within 48 hours during business days; office hours from 4:00 P.M to 9 P.M.
Program office information:	If you have any concerns or questions regarding the course, you can contact the program staff, Monday through Friday, at techprog@ualberta.ca
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The University of Alberta acknowledges that we are located on Treaty 6 territory, and respects the histories, languages, and cultures of First Nations, Metis, Inuit, and all First Peoples of Canada, whose presence continues to enrich our vibrant community.

ABOUT THE COURSE

Course Description

In this low-code course, you'll learn about and practice how to navigate and use your computer effectively, as you explore some software commonly used by developers. Be introduced to basic web-hosting options, tools, and topics, and learn how to launch a website. Explore the issue of quality assurance, and understand why it is so integral to the success of software projects.

Course Outcomes

After completing this course, students should be able to:

- Demonstrate the ability to effectively utilize one or more search engines to locate online resources.
- Make use of planning and time-tracking software to keep track of resource investment during a project.
- Use a command-line interface to navigate a project and add version-control to a project.
- Launch a basic website.

Course Materials

- All course materials available online and/or via eClass.

Other Course Fees

- We cover free hosting tiers during the course, but students are free to purchase and explore additional options at their own expense.

COURSE SCHEDULE

Key Course Dates

All assignment submission deadlines follow **Mountain Time (MT)**, and are listed below.

Please note that online synchronous class times **will be recorded**.

Refer to the Recording in the Classroom policy section of this document for further details.

Module	Key Dates & Times
Module 1 Approaching Projects	July 29, 2021 @ 7:00PM - 9:00PM Assignments and Activities <ul style="list-style-type: none">• Project<ul style="list-style-type: none">◦ August 22, 2021 @ 11:59PM• Module 1 Quiz<ul style="list-style-type: none">◦ August 1, 2021 @ 11:59PM
Module 2 Navigating Files and Folders	August 5, 2021 @ 7:00PM - 9:00PM Assignments and Activities <ul style="list-style-type: none">• Module 2 Quiz<ul style="list-style-type: none">◦ August 8, 2021 @ 11:59PM
Module 3 Git and GitHub	August 12, 2021 @ 7:00PM - 9:00PM Assignments and Activities <ul style="list-style-type: none">• Module 3 Quiz<ul style="list-style-type: none">◦ August 15, 2021 @ 11:59PM
Module 4 GitIgnore, ReadMe, GitHub Pages, and Domains	August 12, 2021 @ 7:00PM - 9:00PM Assignments and Activities <ul style="list-style-type: none">• Module 4 Quiz<ul style="list-style-type: none">◦ August 15, 2021 @ 11:59PM
Module 5 Hosting and FTP	August 19, 2021 @ 7:00PM - 9:00PM Assignments and Activities <ul style="list-style-type: none">• Module 5 Quiz<ul style="list-style-type: none">◦ August 22, 2021 @ 11:59PM
Module 6	August 19, 2021 @ 7:00PM - 9:00PM

Setting up a Google Cloud Server	
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MODULE OVERVIEWS

Module 1: Approaching Projects

Topics

- Using a search engine
- Tracking your time
- Planning in Trello
- Quality Assurance

Learning Outcomes

After completing this module, students should be able to:

- Search the web effectively.
- Demonstrate understanding of time tracking and time tracking techniques.
- Communicate a plan in a kanban style via Trello.
- Demonstrate understanding of quality assurance.

Supplementary (Optional) Readings

- Spencer, S. (July 2011). *Google Power Search*. O'Reilly Media, Inc.
<https://learning.oreilly.com/library/view/google-power-search/9781449311940/>
- Nöteberg, S. (December 2009). *Pomodoro Technique Illustrated*. Pragmatic Bookshelf.
<https://learning.oreilly.com/library/view/pomodoro-technique-illustrated/9781680500103/>
- Hammarberg, M., Sunden, J. (February 2014). *Kanban in Action*. Manning Publications.
<https://learning.oreilly.com/library/view/kanban-in-action/9781617291050/>
- Rich, J. (October 2017). *Working in the Cloud: Using Web-Based Applications and Tools to Collaborate Online*. Que.
<https://learning.oreilly.com/library/view/working-in-the/9780134788494/>
- Mahfuz, A. S. (April 2016). *Software Quality Assurance*. Auerbach Publications.
<https://learning.oreilly.com/library/view/software-quality-assurance/9781498735551/>

Activities & Assignments

- Module 1 Quiz

Module 2: Navigating Files and Folders

Topics

- The Windows file system
- Using the Bash terminal to navigate on your PC
- Opening and editing files using Visual Studio Code

Learning Outcomes

After completing this module, students should be able to:

- Demonstrate understanding of paths and important directories on a Windows computer.
- Usage and knowledge of purpose for essential Bash terminal commands.
- Ability to use and identify core features of Microsoft's Visual Studio Code desktop software.

Supplementary (Optional) Readings

- Moran, J. (2015). *File Management Made Simple, Windows Edition*. Berkeley, CA: Apress. <https://search.library.ualberta.ca/catalog/7294012>
- Kirkbride, P. (2020). *Basic Linux Terminal Tips and Tricks: Learn to Work Quickly on the Command Line*. Berkeley, CA: Apress. <https://search.library.ualberta.ca/catalog/9225420>

Activities & Assignments

- Module 2 Quiz

Module 3: Git and GitHub

Topics

- Version Control
- Using Git in a Project
- Using Git and GitHub Together

Learning Outcomes

After completing this module, students should be able to:

- Demonstrate knowledge of version control and its use case.
- Using Git in the command-line.
- Using GitHub to store Git project(s) online.

Required Readings

List readings in APA style.

Supplementary (Optional) Readings

- Tsitoara, M. (November 2019). *Beginning Git and GitHub: A Comprehensive Guide to Version Control, Project Management, and Teamwork for the New Developer*. Apress.
<https://learning.oreilly.com/library/view/beginning-git-and/9781484253137/>
- Loeliger, J., McCullough, M. (August 2012). *Version Control with Git, 2nd Edition*. O'Reilly Media, Inc. <https://learning.oreilly.com/library/view/version-control-with/9781449345037/>

Activities & Assignments

- Module 3 Quiz

Module 4: GitIgnore, ReadMe, GitHub Pages, and Domains

Topics

- Writing a GitIgnore File
- Research and ReadMes
- Launch a Website on GitHub Pages
- Domains and the Internet

Learning Outcomes

After completing this module, students should be able to:

- Demonstrate understanding and purpose of .gitignore and readme.md project files.
- Launch a website on GitHub Pages.
- Demonstrate understanding of domains and their purpose online.

Supplementary (Optional) Readings

- Loeliger, J., McCullough, M. (August 2012). *Version Control with Git, 2nd Edition*. O'Reilly Media, Inc. <https://learning.oreilly.com/library/view/version-control-with/9781449345037/>
- Mailund, T. (August 2019). *Introducing Markdown and Pandoc: Using Markup Language and Document Converter*. Apress. <https://learning.oreilly.com/library/view/introducing-markdown-and/9781484251492/>
- Liu, C., Albitz, P. (May 2006). *DNS and BIND, 5th Edition*. O'Reilly Media, Inc. <https://learning.oreilly.com/library/view/dns-and-bind/0596100574/>

Activities & Assignments

- Module 4 Quiz

Module 5: Hosting and FTP

Topics

- Types of Hosting
- File Transfer Protocol (FTP)

Learning Outcomes

After completing this module, students should be able to:

- Demonstrate understanding of various types of web host options.
- Demonstrate understanding of File Transfer Protocol and its purpose.

Supplementary (Optional) Readings

- Geewax, J. J. (September 2018). *Google Cloud Platform in Action*. Manning Publications.
<https://learning.oreilly.com/library/view/google-cloud-platform/9781617293528/>
- Waleed, A. (December 29, 2014). *FTP Fundamentals*. Hybrid Webs.
<https://www.amazon.ca/FTP-Fundamentals-Waleed-ebook/dp/B00RLYNSAM/>

Activities & Assignments

- Module 5 Quiz

Module 6: Setting up a Google Cloud Server

Topics

- Signing up and configuring a free Google Cloud tier.
- Launching a basic website.

Learning Outcomes

After completing this module, students should be able to:

- Launch a website on Google Cloud.

Supplementary (Optional) Readings

- Geewax, J. J. (September 2018). *Google Cloud Platform in Action*. Manning Publications.
<https://learning.oreilly.com/library/view/google-cloud-platform/9781617293528/>

Activities & Assignments

- Launch a Website

COURSE ASSESSMENT & GRADED ACTIVITIES

Assessments Overview and Weighting

Please refer to the “Key Course Dates” section for a list of all assessment due dates.

Assessment	Module	Due	Weighting
• Project	All	August 22, 2021 @ 11:59PM	50 %
• Module 1 Quiz	1	August 1, 2021 @ 11:59PM	10 %
• Module 2 Quiz	2	August 8, 2021 @ 11:59PM	10 %
• Module 3 Quiz	3	August 15, 2021 @ 11:59PM	10 %
• Module 4 Quiz	4	August 15, 2021 @ 11:59PM	10 %
• Module 5 Quiz	5	August 22, 2021 @ 11:59PM	10 %
TOTAL			100 %

Marking criteria for all assignments will be specified in the instructions section of the assignment. Please review these criteria before completing your assignments.

Assessment Details and Evaluation Criteria

Project

Description / Instructions

A course-long assignment that is built on each class, intended to demonstrate competency and understanding of each module.

Evaluation Criteria

See the rubric on eClass for details.

Module 1 Quiz

Description / Instructions

A quiz covering topics included in Module 1 (search engine usage, use of Trello and kanban style boards, time tracking and the Pomodoro technique, as well as quality assurance.)

Evaluation Criteria

Evaluation information is available on eClass.

Module 2 Quiz

Description / Instructions

A quiz covering topics included in Module 2 (Windows file system, Bash terminal, and using Visual Studio Code.)

Evaluation Criteria

Evaluation information is available on eClass.

Module 3 Quiz

Description / Instructions

A quiz covering topics included in Module 3 (Git and GitHub.)

Evaluation Criteria

Evaluation information is available on eClass.

Module 4 Quiz

Description / Instructions

A quiz covering topics included in Module 4 (GitIgnore, ReadMe, GitHub Pages, and Domains.)

Evaluation Criteria

Evaluation information is available on eClass.

Module 5 Quiz

Description / Instructions

A quiz covering topics included in Module 5 (FTP and hosting.)

Evaluation Criteria

Evaluation information is available on eClass.

COURSE-SPECIFIC POLICY STATEMENTS

Penalty for Late Assessments

In this course, the penalty for late assessments will be a loss of **10%** of the assessment's weight **per day**. If you have extenuating circumstances that will prevent you from handing in your assignments on-time, please contact your instructor *before* the due date to discuss the potential options.

Citation Style

Written assignments must comply with a University-accepted citation style, either MLA or APA. For more information, visit the University Libraries website (www.library.ualberta.ca) and click 'Citation Guides' in the Library Services menu.

Understanding Your Grades

The University of Alberta uses a letter grading system with a four-point scale of numerical equivalents for calculating grade point averages. Grades reflect judgments of student achievement made by instructors. These judgments are based on a combination of absolute achievement and relative performance in a class.

All final results are reported using a letter grade or grade point value.

The following table presents an approximate guide for understanding the relationship between percentage grades and letter grades:

A+	A	A-	B+	B	B-	C+	C	C-	D+	D	F	Letter Grade
96–100	91–95	86–90	81–85	77–80	72–76	69–71	64–68	60–63	55–59	50–54	< 50	% range

UNIVERSITY & FACULTY OF EXTENSION GRADING POLICY

Official Grade Notification

Students can access and print their final grades **only** through Bear Tracks, an online service provided to University of Alberta students. To log into Bear Tracks, visit <https://www.beartracks.ualberta.ca>. To learn more about Bear Tracks and your CCID please visit <https://www.ualberta.ca/registrar/registration-and-courses/bear-tracks-resources>.

Any other edition or statement of a final grade should be considered unofficial, including those released in eClass or by other means. In the rare event access is not available, a hard copy may be requested through the Program Office. Program Offices will not release grades over the telephone under any circumstances. ***If you would like to receive an email notifying you when your final grades are available, please sign on to Bear Tracks and visit the Grades section.***

The University of Alberta Grading System

The following table provides information about the meaning of letter grades:

Grading in Continuing Education Courses *		
Descriptor	Letter Grade	Grade Point Value
Excellent	A+	4.0
	A	4.0
	A-	3.7
Good	B+	3.3
	B	3.0
	B-	2.7
Satisfactory	C+	2.3
	C	2.0
	C-	1.7
Poor	D+	1.3
	D	1.0
Failure	F	0

*These descriptors above to continuing education and undergraduate courses using alpha grades. Graduate courses use an alternative descriptor set.

Courses that are graded using the “completed requirements” criteria use the following grades and remarks:

Final Grades	Description
CR	Completed requirements; no grade point value assigned.
NC	Failure; no grade point value assigned.

A complete list of current final grades and remarks can be found [§23.4](#) of the University Calendar.

Failing Grades

Students will receive a failing grade under the following conditions:

- if the student has failed to meet the course requirements at the required standards stipulated by the course instructor, e.g. the student's aggregate grade on submitted assignments is lower than the minimum passing grade for the course;
- if the student has failed to withdraw from the course. Non-attendance does not constitute notice of withdrawal from a course. If the student chooses to withdraw from a course, the student must contact the Faculty of Extension Registration Office and submit a written withdrawal request.

Grade Appeals

The assignment of grades is the responsibility of the course instructor. Any concerns regarding grades should first be discussed with the instructor. If the problem is not resolved, students may wish to consult the Faculty of Extension regulations regarding grade appeals. The Faculty of Extension has developed procedures in order that learners who encounter concerns and problems related to academic standing, learning assessment/grades, program requirements, or other matters may have them reviewed equitably and expeditiously. Copies of these procedures can be obtained from the Office of the Dean at 2-240 Enterprise Square, 10230 Jasper Avenue, phone (780) 492-2681.

UNIVERSITY AND FACULTY OF EXTENSION POLICY STATEMENTS

Course Outline Policies

Policy about course outlines can be found in the [Academic Regulations](#) section of the University Calendar.

Academic Integrity

The University of Alberta is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect. Students are particularly urged to familiarize themselves with the provisions of the Code of Student Behaviour (<https://www.ualberta.ca/governance/resources/policies-standards-and-codes-of-conduct/code-of-student-behaviour.html>) and avoid any behaviour which could potentially result in suspicions of cheating, plagiarism, misrepresentation of facts and/or participation in an offence. Academic dishonesty is a serious offence and can result in suspension or expulsion from the University.

Recording in the Classroom

Audio or video recording, digital or otherwise, of lectures, labs, seminars or any other teaching environment by students is allowed only with the prior written consent of the instructor or as a part of an approved accommodation plan. Student or instructor content, digital or otherwise, created and/or used within the context of the course is to be used solely for personal study, and is not to be used or distributed for any other purpose without prior written consent from the content author(s).

Please note that online synchronous class times for this course may be recorded for the benefit of the class. Any recordings of this course will be disclosed to other students enrolled in this section of the class, the instructor, and any other teaching assistants and/or course administrators who may support the course. It is recommended that students remove all identifiable and personal belongings from the space in which they will be participating. Students do have the right to not participate in the recording, and in such cases are advised to turn off their cameras and audio recording devices prior to recording; students can still participate in online synchronous sessions through text-based chat. Unless otherwise specified, recordings will be saved to Zoom cloud storage, accessible via eClass, and made available for as long as the course eClass section remains active. Please direct any questions about this digital collection of recordings to your course instructor.

Accommodating Disabilities

If you have a disability or condition that may require some modifications, please contact Accessibility Resources (1-80 Students' Union Building; PH: (780) 492-3381; TTY: (780) 248-1665) and obtain a determination as to what accommodations should be made.

Withdrawal, Refunds, and Transfer Information

If you wish to drop or withdraw from this course, you must do so by the official drop or withdrawal deadline. Please refer to <https://www.ualberta.ca/extension/information/for-students/forms/cancel-registration> for information related to official drop and withdrawal policies and deadlines, as well as guidelines to the withdrawal process. Non-attendance does not constitute notice of withdrawal from a course. In graded courses, please note that a failing grade can be assigned to any student who has not officially withdrawn from the course.

Your @ualberta.ca Email Address

The University of Alberta uses email to communicate important information and notices to our students, and you have been automatically assigned an @ualberta.ca email account. It is your responsibility to check your @ualberta.ca email account regularly.

Visit <https://www.ualberta.ca/extension/information/for-students/checklist#email> for more information.

Applying for Graduation

Continuing Education students who expect to complete the requirements of a certificate or citation program by the end of winter term must apply for graduation by Feb. 1 using Bear Tracks under Academics > My Academics > Graduation.

See <https://ext.ualberta.ca/information/policies/graduation> for more information.

In Case of Emergency

All students attending classes at Enterprise Square MUST be familiar with the Faculty of Extension's Emergency Protocols in the event of a fire or other emergency situation. Click here to visit emergency protocols: <https://bit.ly/2NAZFmR>.

Records in General Studies Courses

Faculty of Extension general studies courses (those with the prefix EXGEN) are non-graded and will appear on the transcript as "Non-graded."

Records in Courses in Certificate and Citation Programs

Faculty of Extension courses offered as part of certificate or citation programs are assessed. Any learner, meeting course prerequisites, can take a course that is part of a credentialed program. If you are not registered to take the full program at this time, taking a graded course gives you the opportunity to participate in assessments and earn a grade that reflects your achievement. Grades earned can later be applied to applicable program requirements. Grades earned in Continuing Education courses contribute to your University of Alberta Continuing Education GPA. University of Alberta undergraduate and graduate GPAs are calculated independently.

If you do not wish to complete assessments, receive a grade, or apply course credit to a credential, you must register to "audit" the course. Courses will appear on the transcript as "Audit." Students registered into graded courses that do not self-identify and officially register an audit student will receive the grade earned.