COURSE OUTLINE
WINTER 2025

	Date	Initials
Prepared by Instructor	16-12-2024	AAL
Approved by Head	17-Dec-24	DTW

1. Calendar Information

ENSF 381
Full Stack Web Development

A practical survey of fullstack software development including front-end and back-end design and development, relevant libraries and framework, principles of devOps and cloud integration, in the context of agile software development. Introduction to Continuous Integration and Continuous Delivery (CI/CD).

Course Hours: 3 units; H(3-2)
Academic Credit: 3
Calendar Reference: https://calendar.ucalgary.ca/courses/1654111

2. Learning Outcomes

At the end of this course, you will be able to:

1 Gain an understanding of the fundamental principles of full stack development.

2 Design and develop interactive, responsive websites by leveraging both front-end and back-end technologies.

3 Analyze and assess diverse technical solutions during the website development process.

4 Use appropriate tools for website development.

5 Collaboratively engage in the development of websites.

3. Timetable

Section	Day(s) of the Week	Time	Location
LEC 01	MWF	08:00 - 08:50	ENE 241
LAB B01	F	11:00 - 12:50	ENA 305
LEC 02	MWF	14:00 - 14:50	ENE 241
LAB B02	F	11:00 - 12:50	ICT 319

4. Course Instructors

Course Coordinator

Section	First Name	Family Name	Phone	Office	Email
1	Ahmad	Abdellatif		ICT241	ahmad.abdellatif@ucalgary.ca
2	Novarun	Deb		ICT246	novarun.deb@ucalgary.ca

Other Instructors

Section	First Name	Family Name	Phone	Office	Email

Teaching Assistants

Section	First Name	Family Name	Phone	Office	Email
1	Zahra	Arabi Narei			zahra.arabinarei@ucalgary.ca
1	Saviour	OWOLABI			saviour.owolabi@ucalgary.ca
2	Ogechukwu	Kanu			ogechukwu.kanu@ucalgary.ca
2	Divine	Nyamadi			divine.nyamadi@ucalgary.ca
2	Mehrnaz	Senobari			mehrnaz.senobarivayg@ucalgary.

5. Assessments

Final exam: We will have a paper-based final exam for this course, which will take place in-person at UCalgary campus. Final exam is 150 minutes and will be scheduled by a Registrar. The exam format will encompass multiple-choice questions, True/False questions, coding questions, and questions requiring detailed responses. You must pass the final exam in order to pass the course.

Assignments: We will have programming assignments in this course. Working in a group maximum of two students is required. These assignments are pivotal for comprehending the covered topics in this course. When working in a group, submit ONLY ONE copy; i.e. do not submit 2 separate copies. Ensure you submit the complete source code, ready for execution without modifications. If this is violated, you will get a zero mark for these parts of the assignments. You must attempt all assignments to pass the course. Assignments may be submitted up to 48 hours after the deadline without penalty. Submissions made between 48 and 72 hours late will incur a 40% penalty. Assignments will not be accepted beyond 72 hours after the deadline. The assignment schedule is as follows:
Assignment-1: Start Date: 27/Jan/2025 - Due Date: 07/Feb/2025
Assignment-2: Start Date: 10/Feb/2025 - Due Date: 28/Feb/2025
Assignment-3: Start Date: 03/Mar/2025 - Due Date: 14/Mar/2025
Assignment-4: Start Date: 17/Mar/2025 - Due Date: 28/Mar/2025
Assignment-5: Start Date: 31/Mar/2025 - Due Date: 11/Apr/2025

Lab Deliverables: In-lab exercises are graded. You have to submit the complete source code, which can be executed without changes. Lab instructions must be followed in groups (with a maximum of two students). Lab exercises should be submitted by 11:55 PM on the same day as the lab. Labs serve as a practical application of learned concepts, enhancing your understanding and the transferability of acquired knowledge. The first lab session is scheduled for January 24, 2025.

For reappraisals of term work or final assessments, please refer to the SSE Reappraisal of Graded Term Work and Academic Assessments Policy (https://schulich.ucalgary.ca/sites/default/files/teams/1/SSE%20Reappraisal%20Policy.pdf) and forms are available on the Engineering Student Center D2L site.

6. Use of Calculators in Examinations

You may use any calculator you wish for studying and completing lab reports. However, you must use only one of the following sanctioned Schulich School of Engineering calculators during exams: Casio FX-260S, Casio FX-300MS, Casio FX-95ES Plus, Casio FX-300ESPLUS2 (2nd Edition), TI-30XIIS, TI-30Xa, Sharp EL-531XTB-WH, and HP10S Plus.

7. Final Grade Determination

The final grade in this course will be based on the following components:

Component	Learning Outcome(s) Evaluated	Weight
Assignments	1, 2, 3, 4, 5	50%
Lab Deliverables	1, 2, 3, 4, 5	20%
Final Exam	1, 2, 3	30%
	Total:	100%

Conversion from a score out of 100 to a letter grade will be done using the conversion chart shown below. This grading scale can only be changed during the term if the grades will not be lowered.

Letter Grade	Total Mark (T)
A+	$T \geq 95.0\%$
A	$90.0\% \leq T < 95.0\%$
A-	$85.0\% \leq T < 90.0\%$
B+	$80.0\% \leq T < 85.0\%$
B	$75.0\% \leq T < 80.0\%$
B-	$70.0\% \leq T < 75.0\%$
C+	$65.0\% \leq T < 70.0\%$
C	$60.0\% \leq T < 65.0\%$
C-	$56.0\% \leq T < 60.0\%$
D+	$53.0\% \leq T < 56.0\%$
D	$50.0\% \leq T < 53.0\%$
F	$T < 50.0\%$

8. Textbook

The following textbook(s) is required for this course:

Title	Learning React: Modern Patterns for Developing React Apps
Author(s)	Alex Banks
Edition, Year	2, 2020
Publisher	O'Reilly Media

The following textbook(s) is recommended for this course:

Title	The Road to React: Your journey to master plain yet pragmatic React.js
Author(s)	Robin Wieruch
Edition, Year	2, 2020
Publisher	

Title	Flask Web Development: Developing Web Applications with Python
Author(s)	Miguel Grinberg
Edition, Year	2, 2018
Publisher	O'Reilly Media

9. University of Calgary Policies and Supports

SSE ADVISING AND POLICIES

All Schulich School of Engineering students have access to a D2L site titled "Engineering Student Centre". Students have a responsibility to familiarize themselves with the policies available on this site.

ACADEMIC MISCONDUCT

Academic Misconduct refers to student behavior which compromises proper assessment of a student's academic activities and includes: cheating; fabrication; falsification; plagiarism; unauthorized assistance; failure to comply with an instructor's expectations regarding conduct required of students completing academic assessments in their courses; and failure to comply with exam regulations applied by the Registrar.

For more information on the University of Calgary Student Academic Misconduct Policy and Procedure and the SSE Academic Misconduct Operating Standard, please visit: https://schulich.ucalgary.ca/current-students/undergraduate/student-resources/policies-and-procedures

Additional information is available on the Academic Integrity Website at https://ucalgary.ca/student-services/student-success/learning/academic-integrity

ACADEMIC ACCOMMODATION

It is the student's responsibility to request academic accommodations according to the University policies and procedures listed below. The Student Accommodations policy is available at https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Student-Accommodation-Policy.pdf

Students needing an accommodation based on disability or medical concerns should contact Student Accessibility Services (SAS) in accordance with the Procedure for Accommodations for Students with Disabilities (https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Accommodation-for-Students-with-Disabilities-Procedure.pdf). SAS will process the request and issue letters of accommodation to instructors. For additional information on support services and accommodations for students with disabilities, visit www.ucalgary.ca/access/.

Students needing an accommodation in relation to their coursework or to fulfil requirements for a degree based on a Protected Ground other than Disability, should communicate this need by submitting a SSE Request for Academic Accommodation Form (ESC D2L - Forms) to the Associate Head (Undergraduate Studies) within 10 business days prior to the class, test, exam, or assignment at issue.

INSTRUCTOR INTELLECTUAL PROPERTY

Course materials created by instructors (including presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the instructor. These materials may NOT be reproduced, redistributed or copied without the explicit consent of the instructor. The posting of course materials to third party websites such as note-sharing sites without permission is prohibited. Sharing of extracts of these course materials with other students enrolled in the course at the same time may be allowed under fair dealing.

FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY

Student information will be collected in accordance with typical (or usual) classroom practice. Students' assignments will be accessible only by the authorized course faculty. Private information related to the individual student is treated with the utmost regard by the faculty at the University of Calgary.

COPYRIGHT LEGISLATION

All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright (https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Acceptable-Use-of-Material-Protected-by-Copyright-Policy.pdf) and requirements of the copyright act (https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html) to ensure they are aware of the consequences of unauthorised sharing of course materials (including instructor notes, electronic versions of textbooks etc.). Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Student-Non-Academic-Misconduct-Policy.pdf.

MEDIA RECORDING (if applicable)

Please refer to the following statement on media recording of students: https://elearn.ucalgary.ca/wp-content/uploads/2020/05/Media-Recording-in-Learning-Environments-OSP_FINAL.pdf

**Media recording for lesson capture*

The instructor may use media recordings to capture the delivery of a lecture. These recordings are intended to be used for lecture capture only and will not be used for any other purpose. Although the recording device will be fixed on the Instructor, in the event that incidental student participation is recorded, the instructor will ensure that any identifiable content (video or audio) is masked, or will seek consent to include the identifiable student content to making the content available on University approved platforms.

**Media recording for self-assessment of teaching practices*

The instructor may use media recordings as a tool for self-assessment of their teaching practices. Although the recording device will be fixed on the instructor, it is possible that student participation in the course may be inadvertently captured. These recordings will be used for instructor self-assessment only and will not be used for any other purpose.

**Media recording for the assessment of student learning*

The instructor may use media recordings as part of the assessment of students. This may include but is not limited to classroom discussions, presentations, clinical practice, or skills testing that occur during the course. These recordings will be used for student assessment purposes only and will not be shared or used for any other purpose.

SEXUAL VIOLENCE POLICY

The University recognizes that all members of the University Community should be able to learn, work, teach and live in an environment where they are free from harassment, discrimination, and violence. The University of Calgary's sexual violence policy guides us in how we respond to incidents of sexual violence, including supports available to those who have experienced or witnessed sexual violence, or those who are alleged to have committed sexual violence. It provides clear response procedures and timelines, defines complex concepts, and addresses incidents that occur off-campus in certain circumstances. Please see the policy available at https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Sexual-and-Gender-Based-Violence%20Policy.pdf

OTHER IMPORTANT INFORMATION

Please visit the Registrar's website at: https://www.ucalgary.ca/registrar/registration/course-outlines

for additional important information on the following:

- Wellness and Mental Health Resources
- Student Success
- Student Ombuds Office
- Student Union (SU) Information
- Graduate Students' Association (GSA) Information
- Emergency Evacuation/Assembly Points
- Safewalk

10. Additional Course Information

Course Format and Scheduling

Course content will be presented synchronously during both course and lab sessions. Active student participation and meaningful contributions to in-class discussions are anticipated. This collaborative approach aims to foster a dynamic learning environment, where students can exchange ideas and deepen their understanding of the material through interactive discussion.

Course materials will be asynchronously posted on the course D2L site. All materials shared on the platform are the intellectual property of the instructors and must not be shared or duplicated

Guidelines for Completing and Submitting Coursework

Information regarding content, deliverables, and deadlines will be communicated through the course D2L site. Students need to check the D2L site and their associated email accounts daily to stay updated. Guidelines for submitting assessments will also be made available on D2L. Regularly checking these platforms will ensure you remain informed and meet all course requirements deadlines.

To provide flexibility in instances of illness or personal distress, particularly when students