

ENGSCI 9310B: New Venture Creation

Course Outline – Winter 2023

Overview:

This course is for students who have an interest in entrepreneurship and the challenges of starting, growing, and managing a new venture. The purpose of this course is to develop your skills in relevant areas of new venture creation, especially as it relates to thinking about innovative products and services, recognizing/identifying opportunities, and acting on these ideas. The purpose of this course is also to encourage students to think broadly and collaboratively about entrepreneurship. **Students from all engineering disciplines are welcome and encouraged in this course.**

Engineering Leadership and Innovation 9310A/B New Venture Creation: This course highlights new venture creation and technology innovation. The entrepreneurial process is introduced as a path to market that includes searching for and screening new ideas, planning development, and starting up new ventures. The course delivery, through the Ivey Business School case method, fosters learning within an active class environment.

Prerequisites: Open to any student enrolled in Western Engineering's Master of Engineering (MEng) or Engineering Leadership and Innovation Graduate Diploma (GDip), **from all disciplines.**

Contact Hours: 3 lecture hours/week.

- Wednesdays, January 11 to April 5, 2023, 6:30PM to 9:30PM ET, ACEB 1420
- Note: some lectures may incorporate student self-study using videos and course material posted on OWL, remote/experiential learning, guest speakers, interacting in forums, etc.

Course Lecturer:

Joel Adams, BESC (Western Engineering), HBA (Richard Ivey School of Business): jadams@uwo.ca

Joel Adams is an experienced entrepreneur, engineering executive, and Senior Innovation Advisor at the Government of Canada. He the former Executive Director of Western University's Research Parks, the founder of several technology incubators, and has advised hundreds of entrepreneurs, led the development and testing of one of Canada's first street legal autonomous vehicles, and was recognized for his contributions to entrepreneurship as the Entrepreneurial Ecosystem Builder of the Year for Ontario by Startup Canada. For two decades, he has taught entrepreneurship, innovation, and strategy to undergraduate, graduate, and executive engineering students at Western Engineering, and to executive engineering students at the Universities of Waterloo, Toronto, McMaster, and Queens.

Consultation Hours: by appointment.

Course Materials:

- Students are required to purchase an Ivey Publishing Course Pack for a nominal fee (under \$100). Instructions to purchase print or digital download copies will be provided in class.
- Other essential readings will be provided in OWL, including publicly available cases.
- Online materials may include summary slides, concept models, recorded lectures, videos, and practical and theoretical reading material drawn from entrepreneurship literature and research.
- Students may be required to attend and participate in guest speaker sessions in person or online.
- No required textbook (supplemental readings will be recommended in class).

Evaluation:

Course Component	Due Dates	Weight
Class Participation (individual)	Every Class	20%
Emerging Opportunity Report (individual)	Mid-Term	20%
Lean Canvas & Elevator Pitch (individual)	Third Final Class	10%
Business Plan/Presentation (group)	Final Class	40%
Reflection Paper (individual)	Prior to Exam Period	10%

Final Exam: None. To obtain a passing grade in the course, a mark of 50% or more must be achieved on the Business Plan (in lieu of a final exam). A Business Plan mark < 50% will result in a final course grade of 48% or less.

Topics and Specific Learning Objectives:

1. Topic: Entrepreneurship

At the end of this section, students will be able to:

- a. define the role of an entrepreneur and the importance of entrepreneurship to the economy
- b. describe the role of engineers in entrepreneurship and new venture (startup) creation
- c. describe the relationship between technology, products, and markets

2. Topic: Innovation

At the end of this section, students will be able to:

- a. define innovation and describe positive and negative impacts of innovation on society and organizations
- b. describe the high-level processes, dynamics, and limitations of technological innovation
- c. describe the role of innovation as a specific tool of the entrepreneur in new venture creation

3. Topic: Emerging Opportunity Recognition and Evaluation

At the end of this section, students will be able to:

- a. apply tools and frameworks to find, identify, and describe potential exploitable opportunities
- b. complete market research and feasibility studies on emerging technology opportunities
- c. evaluate attractiveness of potential opportunities and make decisions to proceed

4. Topic: Business Models and Lean Startup

At the end of this section, students will be able to:

- a. describe and critically evaluate alternative frameworks for defining new venture business models, including the business model canvas, lean canvas, traditional business plans, and other competing approaches
- b. generate customer, problem, and solution hypotheses, and identify core/riskiest assumptions
- c. get out of the building to begin customer development and test product-market fit

5. Topic: Business Planning

At the end of this section, students will be able to:

- a. create and present a startup business plan for internal use and as required by investors and other stakeholders
- b. prepare and present an elevator pitch that captures their unique value proposition
- c. identify the limitations of business plans and understand their relationship to other frameworks

6. Topic: Reflection Paper

At the end of this section, students will be able to:

- a. synthesize and apply concepts from the course and external sources to their own personal career path

Homework Assignments:

Assignments and reports will be discussed during class hours and posted on OWL (<https://owl.uwo.ca/portal/>).

Late Submission Policy:

Late submissions will be penalized 5% per day and will not be accepted beyond 5 days late. Presentations must be given on the assigned date.

Use of English:

In accordance with Senate and Faculty Policy, students may be penalized up to 10% of the marks on all assignments, tests, and examinations for improper use of English. Additionally, poorly written work with the exception of the final examination may be returned without grading. If resubmission of the work is permitted, it may be graded with marks deducted for poor English and/or late submission.

Participation:

Class discussion is an integral aspect of full participation in this course. As we will be using the Ivey School of Business case study method of teaching, students are expected to participate in classroom discussions (which may include remote learning, virtual chatrooms, and other methods) and will be graded for quality and quantity of participation. Students must notify the instructor in advance if they will be unable to attend a class.

Attendance:

Any student who misses more than 25% (or 4 classes) will be reported to the Dean (after due warning has been given). On the recommendation of the department, and with the permission of the Dean, the student will be assigned a failing grade in the course.

Absence Due to Illness or Other Circumstances:

Students should immediately consult with the course instructor or Chair if they have any problems that could affect their performance in the course. Where appropriate, the problems should be documented. The student should seek advice from the course instructor or Chair regarding how best to deal with the problem. Failure to notify the course instructor or Chair immediately (or as soon as possible thereafter) will have a negative effect on any appeal.

Obtaining appropriate documentation (e.g., a note from the doctor) is valuable when asking for accommodation due to illness. For more information concerning accommodations, see the relevant policies:

<https://www.eng.uwo.ca/graduate/current-students/academic-support-and-accommodations/index.html>

Policy on Repeating All Components of a Course:

Students who are required to repeat an Engineering course must repeat all components of the course. No special permissions will be granted enabling a student to retain assignment, or presentation marks from previous years. Previously completed assignments cannot be resubmitted by the student for grading in subsequent years.

Prerequisites:

Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you will be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

Use of Electronic Devices:

Students may use laptops, tablet computers, or smart phones (vibrate mode only) during class for course related activities. Non-emergency phone calls or text during class are not permitted.

Recording of Learning Sessions:

Sessions for this course may be recorded so that they can be reviewed by the instructor or shared with students who are not able to participate in synchronous activity, e.g. due to time zone differences. The data captured during these recordings may include your image, voice recordings, chat logs and personal identifiers (name displayed on the screen). The recordings will be used for educational purposes related to this course, which may include evaluations. Please contact the instructor if you have any concerns related to session recordings. Participants in this course are not permitted to record the sessions, except where recording is an approved accommodation, or the participant has the prior written permission of the instructor.

Scholastic Offences:

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_grad.pdf
(https://www.uwo.ca/univsec/academic_policies/index.html)

Plagiarism:

University policy states that plagiarism, defined as the “act or an instance of copying or stealing another’s words or ideas and attributing them as one’s own.” (excerpted from Black’s Law Dictionary, West Group, 1999, 7th ed., p. 1170) is a scholastic offence. In submitting any written work as part of the requirements for this course, students must ensure that this work is written in their own words. Whenever students take an idea or a passage of text from another author, they must acknowledge their debt both by using quotation marks where appropriate and by proper referencing such as footnotes or citations.

All required papers may be subject to submission for textual similarity review to the commercial plagiarism-detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (<http://www.turnitin.com>).

Any student who is suspected of a scholastic offence in respect of any work submitted as part of the coursework requirements for this course will be dealt with according to the University policies. For the purposes of this course, the University official for handling the case will be the Director, Centre of Engineering Leadership and Innovation. A common penalty for a first-time offence is a grade of zero in the relevant assignment. A serious incident or repeated offences (at any time at Western) may result in suspension or expulsion from the University.

Conduct:

Students are expected to arrive at lectures (including online sessions) on time, and to conduct themselves during class in a professional and respectful manner that is not disruptive to others. Late comers may be asked to wait outside the classroom until being invited in by the Instructor. Please turn off your cell phone before coming to a class, tutorial, quiz or exam. On the premises of the University or at a University-sponsored program, students must abide by the Student Code of Conduct: <https://www.uwo.ca/univsec/pdf/board/code.pdf>

Accessibility:

Please contact the course instructor if you require material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 661-2111 x 82147 for any specific question regarding an accommodation.

Accessible Education Western (AEW):

Western is committed to achieving barrier-free accessibility for all its members, including students. As part of this commitment, Western provides a variety of services devoted to promoting, advocating, and accommodating persons with disabilities in their respective graduate program.

Students with disabilities (for example, chronic illnesses, mental health conditions, mobility impairments) are strongly encouraged to register with Accessible Education Western (AEW):

http://academicsupport.uwo.ca/accessible_education/index.html

AEW is a confidential service designed to support graduate and undergraduate students through their academic program. With the appropriate documentation, the student will work with both AEW and their programs (normally their Chair and/or course Instructor) to ensure that appropriate academic accommodations to program requirements are arranged. These accommodations include individual counselling, alternative formatted literature, accessible campus transportation, learning strategy instruction, writing exams and assistive technology instruction.

Student Support:

Office of the Registrar: <http://www.registrar.uwo.ca/>

Academic Support and Engagement: <http://academicsupport.uwo.ca/>

Engineering Graduate and Postdoctoral Studies Office: <http://www.eng.uwo.ca/graduate/>

Society of Graduate Students (SOGS) Support Resources: <http://sogs.ca/support-resources/>

Mental Health and Wellness:

As part of a successful student experience at Western, we encourage students to make their health and wellness a priority. Western provides several health and wellness related services to help you achieve optimum health and engage in healthy living while pursuing your degree. Information regarding health- and wellness-related services available to students may be found at <http://www.health.uwo.ca/>

Students seeking help regarding mental health concerns are advised to speak to someone they feel comfortable confiding in, such as their faculty supervisor, their program director (chair), or other relevant administrators in their unit. Faculty of Engineering has a Student Wellness Counsellor. To schedule an appointment with the counsellor, contact Kristen Edwards (khunt29@uwo.ca) via confidential email and you will be contacted by our intake office within 48 hours to schedule an appointment.

Students who are in emotional/mental distress should refer to Mental Health@Western <http://www.uwo.ca/uwocom/mentalhealth/> for a complete list of options about how to obtain help.

Internet and Electronic Mail:

Students are responsible for regularly checking their Western (uwo.ca) e-mail and the course web site (OWL: <https://owl.uwo.ca/portal/>) and making themselves aware of any information that is posted about the course.

Course delivery with respect to the COVID-19 pandemic

Although the intent is for this course to be delivered in-person, the changing COVID-19 landscape may necessitate some or all of the course to be delivered online, either synchronously (i.e., at the times indicated in the timetable) or asynchronously (e.g., posted on OWL for students to view at their convenience). The grading scheme will not change. Any assessments affected will be conducted online as determined by the course instructor.

When deemed necessary, tests and examinations in this course will be conducted using a remote proctoring service. By taking this course, you are consenting to the use of this software and acknowledge that you will be required to provide personal information (including some biometric data) and the session will be recorded. Completion of this course will require you to have a reliable internet connection and a device that meets the technical requirements for this service. More information about this remote proctoring service, including technical requirements, is available on Western's Remote Proctoring website at: <https://remoteproctoring.uwo.ca>.

Recordings

Some classes may be recorded. The data captured during these recordings may include your image, voice recordings, chat logs and personal identifiers (name displayed on the screen). The recordings will only be used for educational purposes related to this course, including evaluations. The recordings may be disclosed to other individuals participating in the course for their private or group study purposes.

Please contact me if you have any concerns related to session recordings. Participants in this course are not permitted to record the sessions, except where recording is an approved accommodation, or the participant has the prior written permission of the instructor.