

Course Outline

1. COURSE INFORMATION

Session Offered	Fall 2020 (Virtual Blended Delivery)	
Course Name	Entrepreneurial Thinking & Innovation	
Course Code	GENTECH 3ET3	
Date(s) and Time(s) of lectures	C01: TU: 12:30-1:20pm / TH: 12:30-2:20pm (Virtual Blended Delivery) C02: TU: 4:30-6:20pm / TH: 4:30-5:20pm (Virtual Blended Delivery) C03: MO: 8:30-10:20am / TU:10:30-11:20am (Virtual Blended Delivery)	
Program Name	One of the following: Automation Engineering Technology / Automotive and Vehicle Engineering Technology / Biotechnology	
Calendar Description	This course introduces students to the interrelationship of entrepreneurial thinking and innovation at both the industrial and individual level.	
Instructor(s)	Allan MacKenzie <i>Sections: C01 & C02</i>	E-Mail: mackenza@mcmaster.ca Office: Remote Office Office Hours: By advance appointment only
	Matt Schonewille <i>Section: C03</i>	E-Mail: schonemj@mcmaster.ca Office: Remote Office Office Hours: By advance appointment only
Teaching Assistant(s)	Razanne Habash	Email: habashr@mcmaster.ca
	David Elchuk	Email: elchukdp@mcmaster.ca

2. COURSE SPECIFICS

Course Description	<p>Entrepreneurship deals with the process of developing new business ventures or promoting growth and innovation in existing firms. Innovation is not just about new technology, but also about doing things better to enhance value to customers, employees and shareholders.</p> <p>Within business, innovation is usually associated with product or process technologies that serve to add value or lower costs. Innovation can also involve enhancements to the way a business system is structured, or workplaces are designed. Innovators can be equally diverse, and those who can blend innovation with entrepreneurship profoundly shape the future of their industries.</p> <p>The framework of this course will follow the development of the fundamental building blocks of a Business Case Report. The Business Case proposal makes a solid case to secure resources and the allocation funds for a "real-world" new product opportunity, new capability, or significant product extension within an enterprise. Components covered are: how to communicate an innovative idea internally within the firm, how to perform thorough environmental scan and analysis, how to perform qualitative analysis and identify key stakeholders, followed by performing quantitative analysis with financial feasibility. Lastly, the best alternatives as recommendations and the creation of a realistic implementation plan will be addressed.</p>
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Instruction Type	Code	Type	Hours per term
	C	Classroom instruction	
	L	Laboratory, workshop or fieldwork	
	T	Tutorial	
	DE	Distance education	39
Total Hours			39
Resources	ISBN	Textbook Title & Edition	Author & Publisher
	PressBook 15038-PDF-ENG 176pgs	HBR Guide to Building Your Business Case (\$9.97US)	R. Sheen & A. Gallo Harvard Business Publishing
	Other Supplies	Source	
	Download E-book:	https://hbsp.harvard.edu/import/750980	
	Innovation Profile	All students will be required to complete the Basadur Innovation Profile to assess your approach to problem-solving and innovative thinking. This instrument will inform student teams formation as people with a diverse mix of styles significantly out-perform teams of more uniform composition	
Video Tutorials:	There will be three (3) video tutorials assigned from the McMaster University LinkedIn Learning enterprise site throughout the course. Training platform access link: https://www.mcmaster.ca/uts/linkedinlearning/		
Other Supplies:	Video lessons, notes, slides and other supplemental materials will be provided via electronic data files on A2L course site		
Prerequisite(s)	GENTECH 3FF3 and registration in Level 3 of Automotive and Vehicle Engineering Technology, Biotechnology or Automation Engineering Technology.		
Corequisite(s)	N/A		
Antirequisite(s)	GENTECH 2EN3, 2ET3, 3EN3, 4ET3		
Departmental Policies	<ul style="list-style-type: none"> • Students must maintain a GPA of 3.5/12 to continue in the program. • In order to achieve the required learning objectives, on average, B.Tech. students can expect to do at least 3 hours of "out-of-class" work for every scheduled hour in class. "Out-of-class" work includes reading, research, assignments and preparation for tests and examinations. • Where group work is indicated in the course outline, such collaborative work is mandatory. • The use of cell phones, iPods, laptops and other personal electronic devices are prohibited from the virtual classroom unless the instructor makes an explicit exception. • Announcements made in class or placed on Avenue are considered to have been communicated to all students, including those individuals that are not in class. • The instructor has the right to submit work to software to identify plagiarism. 		

Course Specific Policies

Course Communications:

- It is your responsibility to check Avenue daily – everything you will need is there, and any important announcements will be posted there. Set your home page to the news feed for the course. See the Course A2L Website for any updates.
- We only respond to emails from students' McMaster email accounts. Ensure that your Mac account is activated and has space to receive emails. We reply to emails only once, and if it returns to us as "undeliverable mail" we do not attempt any further replies. We do not respond to emails asking questions to which the answer is readily available in the course outline or Avenue.
- Other than laptops/tablets for remote lectures/meetings, **WOULD RECOMMEND NOT HAVING YOUR MOBILE AT YOUR REMOTE WORK STATION.**

Switching Remote Classes/Progress Meetings:

You are required to attend the remote class/progress meetings on the days/times for the section in which you are registered.

Video Tutorials Reflection Assignments (Individual): Worth 3 x 5% = 15%

There will be three (3) video tutorials ranging from 30 – 60 minutes assigned as homework from the McMaster University LinkedIn Learning enterprise site throughout the course requiring completion using a specific reflection note-taking framework.

All student reflection reports must be an individual effort and using the student's own words. All reports will be submitted to software to identify plagiarism and must comply with the university's academic integrity policy.

The video tutorial links will be listed in the assignment function on the A2L course site.

- VT1: Writing Business Case (32m) – **Due Sun, Sep. 20 @11:59pm**
- VT2: Unlock Your Team's Creativity (39m) - **Due Sun, Oct 04@11:59pm**
- VT3: An Entrepreneur Inside a Company (56m) - **Due Sun, Oct 25@11:59pm**

Business Case Project (Group):

As a manager or technical professional, you often spot opportunities to help your team, department, and even your entire organization meet essential business goals. When you identify such an opportunity, you may quickly think of a course of action that you believe would enable you to seize the opportunity. A well-developed business case can help you present a convincing argument for a particular solution to key stakeholders whose support you would need to implement your proposed solution.

Working in a pre-arranged team's 4-6 students, you will identify an internal or external business opportunity that could be pursued in the real world. Students are encouraged to develop new business case ideas based on their coop workplace experience. **Note that ALL business case proposals must be approved in advance by the professor. There will be a maximum of 12 (or less) business case teams per course section due to presentation time constraints in the course schedule.**

Business Case Project: (cumulative worth 50%)

Phase 1: Idea Screen Presentation (5%)

- Define a problem or opportunity your group intends to solve. (Think of your previous coop experiences as inspiration for this idea)
- Develop an opportunity or problem statement.
- Develop business objectives and metrics relating to the opportunity identified.

Presentation PPT Due: Mon Oct 5 @ 11:59pm (A2L)

Due: Team presentation will take place "live" over the zoom platform either in the 1HR or 2hr schedule in Week 5.

Phase 2: Scope Screen Presentation (10%)

This presentation will include the defined business case opportunity, a thorough Environmental Scan, and Qualitative Analysis (i.e., Stakeholders, Risk & Impact, Assumptions, and Viable Alternatives).

There must be detailed narrative thoroughly explaining and giving background for all the critical areas of the business case rubric sections required for this presentation in proper written format within the note function of the PowerPoint slides, including citations where applicable.

The Scope Screen will have two separate deliverables; 1) a pre-recorded video capture of your team presentation using the Zoom platform and 2) a separate slide deck in .pptx format of the same presentation. These elements are to be uploaded to the group assignment submission folder.

Due: Monday, November 2, 2020, @ 11:59pm.

Phase 3a: Business Case Final Presentation (worth 10%)

Due: Mon Nov. 23 @11:59pm in Group Dropbox on A2L

A group presentation supported by a PowerPoint slide deck is also required. Team presentations will be delivered "live" over the Zoom platform during class times in weeks 11 and 12. The date/times for each group will be randomly assigned using a lottery process.

- All members of the group **must** participate in the Presentation
- Each group will have 20 minutes – this includes presentation time and answering questions from the instructor. Note the instructor will stop the Presentation at 20 minutes, and if **this happens, your group will have 5% deducted from your presentation grade.**
- All members earn the same as the group grade

Phase 3b: Final Business Case Written Report (worth 20%)

The final report will include **ALL major sections** of the business case, including what was submitted and corrected/revised in the Idea and Scope Screen Presentations. It will consist of the defined opportunity, identified alternatives, feasibility & impact analysis, stakeholder & risk analysis, detailed and accurate estimated financial metrics and return on investment statements, implementation plan, and relevant appendices.

- **Final Written Report Due: Mon. Dec. 7 @11:59pm**, with one report being submitted per group to the dropbox on A2L.
- Individual submissions will not be accepted, and no emailed assignments will be entertained.

Late assignments in any part of the course will receive an immediate 10% deduction from the assignment mark; plus a further 10% late penalty per day will be applied and deducted from the assignment mark. Assignments that have not been submitted within three (3) days after the due date will not be graded and will receive a score of ZERO.

BizCase Peer Evaluation & Feedback (5%)

Due Date: Wed. Dec 9 @11:59pm

- You are required to individually complete a confidential peer evaluation process for each of your Business Case team members.
- The results will have a **maximum influence of 5%** based on your ability and contribution to your Business Case Team.
- The process will be conducted using TEAMMATES, which is an Online Peer Feedback System for student team projects.

Active Learning /Team Progress Meetings Component: Worth 10%

Throughout the term, there will be scheduled instructor-student team 1on1 meetings held over the Zoom platform. During these meetings, the instructor and team members will discuss the upcoming elements of the BizCase Project. There will be several required worksheets to be completed in preparation for these meetings.

Final Exam: Worth 25%

The cumulative final exam will be written online during the scheduled examination period. The final exam format will include application-focused scenario short answer type questions.

Note: Students must achieve a passing mark on the final exam assessment to pass the course. This means students must achieve an overall passing grade in the other course assessments (project, video tutorial assignments, etc.), plus achieve a minimum grade 12.5/25 on the final exam to pass the course.

3. SUB TOPIC(S)		
Week 1: Sep. 8	M1: The Coursescape 1.1. Course Design & Delivery	Complete: Basadur Innovation Profile Assessment Due: Sun, Sep 13 @ 11:59pm
Week 2: Sep. 14	M2: Enabling Success 2.1: Innovation-EntrepThinking Link 2.2: Innovation Style Contribution	VT1: Writing Business Case (32m) (5%) Due: Sun, Sep 20 @ 11:59pm Submit: Team Profile Due: Sun, Sep. 20 @11:59pm
Week 3: Sep. 21	M3 The Opportunity 3.1: BizCase Framework 3.2: BizCase Opportunity Detection	

Week 4: Sep. 28	M4: The Landscape 4.1: BizCase Environmental Scan 4.2: BizCase Stakeholder Analysis 4.3 BizCase Risk Analysis	VT2: Unlock Your Team's Creativity (39m) (5%) Due: Sun, Oct 04 @ 11:59pm
Week 5: Oct. 6	Idea Screen "live" Zoom Team Presentations	Submit: BizCase Idea Screen Slide Deck (5%) Due: Mon, Oct 5 @ 11:59pm
MIDTERM RECESS: Monday, Oct. 12 to Sunday, Oct. 18 (No Virtual Classes or Meetings)		
Week 6: Oct. 19	M5: Build the Case 5.1: BizCase Alternatives/Assumptions	VT3: Become an Entrepreneur Inside a Company (5%) Due: Sun, Oct 25 @ 11:59pm
Week 7: Oct. 26	M5: Build the Case 5.2: BizCase Stakeholder Communications	
Week 8: Nov. 2	M5: Build the Case 5.3: BizCase Cost-Benefits 5.4: BizCase ROI Projections	Submit: BizCase Scope Screen video-capture recorded presentation + Slide Deck & Notes (10%) Due: Mon, Nov 2 @ 11:59pm
Week 9: Nov. 9	M5: Build the Case 5.5: BizCase Recommendations 5.6: BizCase Implementation Plan	
Week 10: Nov. 16	M5: Build the Case 5.7: BizCase Executive Summary	
Week 11: Nov. 23	Final Business Case "live" Zoom Team Presentations	Submit: Final BizCase Slides-All Groups (10%) Due: Mon, Nov 23 @ 11:59pm
Week 12: Nov. 30	Final Business Case "live" Zoom Team Presentations	Submit: Final BizCase Report-All Groups (20%) Due: Mon, Dec 7 @ 11:59pm
Week 13: Dec. 7	Final Exam Preparation	Submit: Team Contribution Report (5%) Due: Wed, Dec 9 @ 11:59pm
Classes end: Wednesday, Dec. 9, 2020 Final examination period: Thursday, Dec. 10 to Wednesday, Dec. 23, 2020 All examinations MUST BE written during the scheduled examination period.		
<p>Note that this structure represents a plan and is subject to adjustment term by term.</p> <p>The instructor and the University reserve the right to modify elements of the course during the term. The University may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with an explanation and the opportunity to comment on changes.</p>		
4. ASSESSMENT OF LEARNING *including dates*		Weight
Group Business Case Project (<i>Group</i>) <ul style="list-style-type: none"> • BizCase Idea Screen Zoom Presentation + Slide Deck: 5% (Due: Mon, Oct 5 @ 11:59pm) • BizCase Scope Screen Video-Capture Presentation + Slide Deck: 10% (Due: Mon Nov 2 @ 11:59pm) • BizCase Final Zoom Presentation (W11 or 12) + Slide Deck: 10% (Due: Mon, Nov 23 @ 11:59pm) • BizCase Final Written Report: 20% (Due: Mon Dec 7 @ 11:59pm) • BizCase Team Contribution Assessment Report (individual): 5% (Due: Wed Dec 9 @ 11:59pm) 		50%

Video Tutorials Written Reflection Reports (<i>Individual</i>)	15%
<ul style="list-style-type: none"> • Unlock Your Team's Creativity: 5% (Due: Sun Sep 20 @ 11:59pm) • Writing a Business Case: 5% (Due: Sun Oct 4 @ 11:59pm) • Become an Entrepreneur Inside a Company: 5% (Due: Sun Oct 25 @ 11:59pm) 	
Course Learning Activities: (<i>Individual & Group</i>) Includes BizCase team work-in-progress worksheets, innovation profiles, etc.	10%
Comprehensive Online Final Examination (TBA – Dec 10 - 23, 2020)	25%
TOTAL	100%

Percentage grades will be converted to letter grades and grade points per the University calendar.

5. LEARNING OUTCOMES

1. Examine the enablers and inhibitors that impact corporate entrepreneurship.
2. Understand how individual-contributor and firm-level innovation drives enterprise competitiveness and impacts the innovation process stages.
3. Perform an environmental scan to determine the competitive advantage and operating environment for a product or service innovation appropriate for an existing organization.
4. Prepare an industry-level qualitative and quantitative analyses for an enterprise investment proposal.
5. Evaluate multiple alternatives for achieving innovation based on assumptions and business objectives.
6. Devise a communication plan to build credibility and sponsorship for innovation within a firm.
7. Generate a comprehensive written business case report and deliver several stage-gate presentations for a product or service innovation appropriate for an existing organisation.

6. COURSE OUTLINE – APPROVED ADVISORY STATEMENTS

ANTI-DISCRIMINATION

The Faculty of Engineering is concerned with ensuring an environment that is free of all discrimination. If there is a problem, individuals are reminded that they should contact the Department Chair, the Sexual Harassment Officer or the Human Rights Consultant, as soon as possible.

http://www.mcmaster.ca/policy/General/HR/Discrimination_Harassment_Sexual_Harassment-Prevention&Response.pdf

ACADEMIC INTEGRITY

You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity. It is your responsibility to understand what constitutes academic dishonesty.

Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behaviour can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university. For information on the various types of academic dishonesty please refer to the Academic Integrity Policy, located at <https://secretariat.mcmaster.ca/university-policies-procedures-guidelines/>

The following illustrates only three forms of academic dishonesty: The following illustrates only three forms of academic dishonesty:

- plagiarism, e.g. the submission of work that is not one's own or for which other credit has been obtained.
- improper collaboration in group work.
- copying or using unauthorized aids in tests and examinations.

AUTHENTICITY / PLAGIARISM DETECTION

Some courses may use a web-based service (Turnitin.com) to reveal authenticity and ownership of student submitted work. For courses using such software, students will be expected to submit their work electronically either directly to Turnitin.com or via an online learning platform (e.g. A2L, etc.) using plagiarism detection (a service supported by Turnitin.com) so it can be checked for academic dishonesty.

Students who do not wish their work to be submitted through the plagiarism detection software must inform the Instructor before the assignment is due. No penalty will be assigned to a student who does not submit work to the plagiarism detection software. All submitted work is subject to normal verification that standards of academic integrity have been upheld (e.g., on-line search, other software, etc.). For more details about McMaster's use of Turnitin.com please go to www.mcmaster.ca/academicintegrity.

COURSES WITH AN ON-LINE ELEMENT

Some courses may use on-line elements (e.g. e-mail, Avenue to Learn (A2L), LearnLink, web pages, capa, Moodle, ThinkingCap, etc.). Students should be aware that, when they access the electronic components of a course using these elements, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course. The available information is dependent on the technology used. Continuation in a course that uses on-line elements will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure please discuss this with the course instructor.

ONLINE PROCTORING

Some courses may use online proctoring software for tests and exams. This software may require students to turn on their video camera, present identification, monitor and record their computer activities, and/or lock/restrict their browser or other applications/software during tests or exams. This software may be required to be installed before the test/exam begins.

COMMUNICATIONS

It is the student's responsibility to:

- Maintain current contact information with the University, including address, phone numbers, and emergency contact information.
- Use the University provided e-mail address or maintain a valid forwarding e-mail address.
- Regularly check the official University communications channels. Official University communications are considered received if sent by postal mail, by fax, or by e-mail to the student's designated primary e-mail account via their @mcmaster.ca alias.
- Accept that forwarded e-mails may be lost and that e-mail is considered received if sent via the student's @mcmaster.ca alias.
- Check the McMaster/Avenue email and course websites on a regular basis during the term.

CONDUCT EXPECTATIONS

As a McMaster student, you have the right to experience, and the responsibility to demonstrate, respectful and dignified interactions within all of our living, learning and working communities. These expectations are described in the Code of Student Rights & Responsibilities (the "Code"). All students share the responsibility of maintaining a positive environment for the academic and personal growth of all McMaster community members, whether in person or online.

It is essential that students be mindful of their interactions online, as the Code remains in effect in virtual learning environments. The Code applies to any interactions that adversely affect, disrupt, or interfere with reasonable participation in University activities. Student disruptions or behaviours that interfere with university functions on online platforms (e.g. use of Avenue 2 Learn, WebEx or Zoom for delivery), will be taken very seriously and will be investigated. Outcomes may include restriction or removal of the involved students' access to these platforms.

ACADEMIC ACCOMMODATION OF STUDENTS WITH DISABILITIES

Students with disabilities who require academic accommodation must contact Student Accessibility Services (SAS) at 905-525-9140 ext. 28652 or sas@mcmaster.ca to make arrangements with a Program Coordinator. For further information, consult McMaster University's Academic Accommodation of Students with Disabilities policy.

REQUESTS FOR RELIEF FOR MISSED ACADEMIC TERM WORK

McMaster Student Absence Form (MSAF): In the event of an absence for medical or other reasons, students should review and follow the Academic Regulation in the Undergraduate Calendar "Requests for Relief for Missed Academic Term Work".

ACADEMIC ACCOMMODATION FOR RELIGIOUS, INDIGENOUS OR SPIRITUAL OBSERVANCES (RISO)

Students requiring academic accommodation based on religious, indigenous or spiritual observances should follow the procedures set out in the RISO policy. Students should submit their request to their Faculty Office normally within 10 working days of the beginning of term in which they anticipate a need for accommodation or to the Registrar's Office prior to their examinations. Students should also contact their instructors as soon as possible to make alternative arrangements for classes, assignments, and tests. <http://www.mcmaster.ca/policy/Students-AcademicStudies/Studentcode.pdf>

COPYRIGHT AND RECORDING

Students are advised that lectures, demonstrations, performances, and any other course material provided by an instructor include copyright protected works. The Copyright Act and copyright law protect every original literary, dramatic, musical and artistic work, including lectures by University instructors

The recording of lectures, tutorials, or other methods of instruction may occur during a course. Recording may be done by either the instructor for the purpose of authorized distribution, or by a student for the purpose of personal study. Students should be aware that their voice and/or image may be recorded by others during the class. Please speak with the instructor if this is a concern for you.

EXTREME CIRCUMSTANCES

The University reserves the right to change the dates and deadlines for any or all courses in extreme circumstances (e.g., severe weather, labour disruptions, etc.). Changes will be communicated through regular McMaster communication channels, such as McMaster Daily News, A2L and/or McMaster email.