

Course Outline

1. COURSE INFORMATION

Session Offered	Fall 2017	
Course Name	Entrepreneurial Thinking & Innovation	
Course Code	GENTECH 3ET3	
Date(s) and Time(s) of lectures	C01: TU: 9:30-11:20am / TH: 10:30-11:20am C02: WE: 1:30-3:20pm / TH: 12:30-1:20pm C03: TU: 8:30-10:20am / TU: 1:30-2:20pm	
Program Name	One of the following: Automotive and Vehicle Engineering Technology / Biotechnology /Automation Engineering Technology	
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 (C01)	E-Mail: mackenza@mcmaster.ca Office: ETB/205 Office Hours: By advance appointment only
	Laurence Smith (C02)	E-Mail: lasmith@mcmaster.ca Office: ETB/209 Office Hours: By advance appointment only
	Hoda Kamel (C03)	E-Mail: kamelh@mcmaster.ca Office: ETB/209 Office Hours: By advance appointment only

2. COURSE SPECIFICS

Course Description	<p>Entrepreneurship deals with the process of developing new business ventures and/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 together 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 major 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, best alternatives as a recommendations and the creation of a realistic implementation plan will be addressed.</p>		
Instruction Type	Code	Type	Hours per term
	C	Classroom instruction	39
	L	Laboratory, workshop or fieldwork	

	T	Tutorial	
	DE	Distance education	
	Total Hours		39
Resources	ISBN		Textbook Title & Edition
	PressBook 15038-PDF-ENG 176pgs		HBR Guide to Building Your Business Case (\$9.98US)
	Download E-book:		http://cb.hbsp.harvard.edu/cbmp/access/65972722
	Other Supplies:		Notes, PowerPoint slides and supplemental materials will be provided via electronic data files on A2L course site
Prerequisite(s)	GEN TECH 3FF3 and registration in Level 3 of Automotive and Vehicle engineering Technology, Biotechnology or Automation Engineering Technology.		
Corequisite(s)	N/A		
Antirequisite(s)	GEN TECH 2EN3, 2ET3, 3EN3, 4ET3		
Departmental Policies	<p>Students must maintain a GPA of 3.5/12 to continue in the program.</p> <p>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.</p> <p>Where group work is indicated in the course outline, such collaborative work is mandatory.</p> <p>The use of cell phones, iPods, laptops and other personal electronic devices are prohibited from the classroom during the class time, unless the instructor makes an explicit exception.</p> <p>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.</p> <p>Instructor has the right to submit work to software to identify plagiarism.</p>		
Course Specific Policies	<p>It is expected that students read the material that is coming under discussion prior to class. All assignments submitted for evaluation are completely word processed. Presentations associated with the case project are done in PowerPoint with an accompanying handout for the audience. Students are expected to actively participate during class sessions offering insight, comment, reinforcement, argument, contrary views and underscoring examples.</p> <p>Switching Classes: You are required to attend the class days/times for the section in which you are registered. It is possible to attend another class day/time occasionally for specific conflicts that are both urgent and important in nature, such as a job interview – <u>however you must get prior approval from the instructor.</u></p> <p>Final Exam: Worth 40% The cumulative final exam will be written during the scheduled examination period. The final exam format will include multiple-choice questions, application-focused short answer questions and multiple questions related to case incident specific to the constraints presented in the case.</p> <p>Note: Students must achieve a <u>passing mark</u> on the final exam (50%) to pass the course.</p>		

Business Case Project (Group):

As a manager or technical professional you often spot opportunities to help your team, department, and even your entire organisation meet important 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 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 from their coop workplace experience. A peer evaluation shall be used & will have to be submitted with the presentation. Peer evaluations will impact the group grade to a maximum of 5% - either positively or negatively.

Note that business case proposals must be approved in advance by the professor.

Business Case Project: (worth 45%)**Idea Proposal Scope Presentation: Worth 5%**

- Introduce your team.
- Define a problem or opportunity your group intends to solve. (Think of your past co-ops as inspiration for this idea)
- Develop an opportunity or problem statement.
- What are your business objectives?

Due: Team presentation in-class in Week 4

Part A: Worth 10%

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

Presentation PPT Due: Mon Oct 16 @ 11:59 pm

Week 6: TEAM presentation to the instructor only in business meeting format

Part B: Worth 20%

The final report will include **ALL** major sections of the business case including what was submitted and corrected in Part A. It will include 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 is **Due: Mon. Nov. 20 @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 (for any portion) 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 mark of ZERO.

	<p>Business Case Presentation: (worth 10%) Due: Mon Nov. 20 @11:59pm in Group Dropbox on A2L</p> <p>A group presentation supported by a PowerPoint slide deck is also required. Presentations will be delivered during class times in weeks 11 and 12. The date/times for each group will be randomly assigned.</p> <ul style="list-style-type: none"> • 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 audience. Note the instructor will stop the presentation at 20 minutes and if <u>this happens your group will have 5% deducted from your presentation grade.</u> • All members earn the same as the group grade <p>Audience Participation (Class Attendance is Mandatory)</p> <ul style="list-style-type: none"> • Student attendance is required for ALL presentation days. <ul style="list-style-type: none"> ○ If you do not attend and properly evaluate in writing the results of your peer’s presentations, you will receive a ZERO (individually) on your presentation grade. • You must be on time for the first presentation or you will not be allowed to enter the classroom until the first presentation is finished. This will result in a 1.0% mark deduction from your grade. (Plus this is just proper respect for your classmates) 	
3. SUB TOPIC(S)		
Week 1: Sep 5-10	<p>Course Intro & Corporate Entrepreneurship</p> <ul style="list-style-type: none"> • The importance of entrepreneurial thinking & innovation • New venture creation in established organizations • Understand the process of intrapreneurship • Creating the innovative organization 	
Week 2: Sep 11-17	<p>Entrepreneurial Process & Design Thinking</p> <ul style="list-style-type: none"> • The role of creativity in entrepreneurship and innovation • What is Design Thinking and how it’s used to drive innovation from beginning to end 	Team Profile Due: Sep 17
Week 3: Sep 18-24	<p>The Business Case Components</p> <ul style="list-style-type: none"> • Defining the business opportunity & scope • Defining the business objectives • Explore the required components of a successful business case • Brain-writing exercise as brainstorming tool 	
Week 4: Sep 25-Oct 1	<p>Environmental Scan (PEST/CREST)</p> <ul style="list-style-type: none"> • Discussion of competitive, regulatory/political, economic, social and technological factors that might affect the business (PEST/CREST) & business idea • Controllable and uncontrollable factors(SWOT analysis) 	<p>Business Case: Idea Proposal Presentation:</p> <ul style="list-style-type: none"> • Presentation in-Class
Week 5: Oct 2-8	<p>Qualitative Analysis</p> <ul style="list-style-type: none"> • Stakeholder analysis • Risk and Impact Analysis • Assumptions for Business case • Generating a list of viable alternatives 	

Fall Recess – No Classes (October 9 - 15, 2017)

Week 6: Oct 16-22	Part A Team Presentation <ul style="list-style-type: none"> Environmental Scan and Qualitative Analysis presented as a TEAM to the instructor only in business meeting format 	Part A: Business Case: <ul style="list-style-type: none"> Slide Deck to Dropbox Due: Oct 16@11:59 pm
Week 7: Oct 23-29	Quantitative Analysis <ul style="list-style-type: none"> Cost discussion (Fixed/Variable) Profit formula BEP Cost-Benefit Analysis NPV/Payback period/IRR 	
Week 8: Oct 30-Nov 5	Recommendation/Implementation/Executive Summary <ul style="list-style-type: none"> Selecting the best alternative based on business objectives. Implementation Plans (short and long-term) How to write a good executive summary 	
Week 9: Nov 6-12	Stakeholder Communication <ul style="list-style-type: none"> Brief discussion of segmentation, targeting and positioning Identifying the Target customer for the product/service/venture Using the Business Case to effectively communicate internally and promote the Business idea 	
Week 10: Nov 13-19	Design Thinking – Closing the Loop <ul style="list-style-type: none"> Fundamentals as applied to the Business case Design thinking as a process for problem-solving Attributes of design thinking Wrap up group work on Business Case 	
Week 11: Nov 20-26	Business Case Group Presentations Attendance is Mandatory	Final Business Case Report+ Presentation Due: Nov 20@11:59pm
Week 12: Nov 27-Dec 3	Business Case Group Presentations Attendance is Mandatory	
Week 13: Dec 4-6	Final Exam Preparation	

Classes end – Wednesday December 6, 2017

Final examination period: Friday, December 8, 2017 to Thursday, December 21, 2017

All examinations MUST BE written during the scheduled examination period.

Note that this structure represents a plan and is subject to adjustment term by term.

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 explanation and the opportunity to comment on changes.

4. ASSESSMENT OF LEARNING*including dates*	Weight
Active Learning: (As announced) <ul style="list-style-type: none"> Randomly assigned in-class activities, exercises, quizzes, reflection reports, Business Case team progress reports, etc. 	15%
Group Business Case Project <ul style="list-style-type: none"> Idea Proposal Scope: 5% (Due: In-Class presentation Week 4) Report Part A: 10% (Due: Mon Oct 16 @ 11:59 pm) Final Written Report + Presentation Slide Deck: 20% (Due Mon Nov. 20 @11:59pm) Presentation 10% (In-class during weeks 11 & 12) 	45%
Comprehensive Final Examination(TBA – Dec 8 - 21,2017)	40%
TOTAL	100%

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

5. LEARNING OUTCOMES

1. Assess the marketplace and perform an environmental scan to determine the competitive advantage and operating environment of a new product or service.
2. Understand how innovation drives economic competitiveness & use the concept of design thinking to drive innovation within an organization.
3. Examine the enablers and inhibitors that foster the development of innovation in an organization.
4. Prepare the required qualitative and quantitative analyses for an organizational 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 the innovation within a firm.
7. Generate an extensive business case report and presentation for a new product or service innovation appropriate for an existing organisation.

6.POLICIES

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 required to exhibit honestly and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity.

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.

It is your responsibility to understand what constitutes academic dishonesty. For information on the various kinds of academic dishonesty please refer to the Academic Integrity Policy, located at: <http://www.mcmaster.ca/policy/Students-AcademicStudies/AcademicIntegrity.pdf>.

The following illustrates only three forms of academic dishonesty:

1. Plagiarism. E.g. the submission of work that is not own or for which other credit has been obtained
2. Improper collaboration in group work
3. Copying or using unauthorized aids in tests and examinations.

Requests for Relief for Missed Academic Term Work (Assignments, Mid-Terms, etc.)

The McMaster Student Absence Form is an on-line self-reporting tool for Undergraduate Students to report absences for:

- 1) Relief for missed academic work worth less than 25% of the final grade resulting from medical or personal situations lasting up to three calendar days:
 - Students may submit a maximum of one academic work missed request per term. It is the responsibility of the student to follow up with instructors immediately (within the 3 day period that is specified in the MSAF) regarding the nature of the accommodation. All work due in that time period however can be covered by one MSAF.
 - MSAF cannot be used to meet religious obligation or celebration of an important religious holiday, for that has already been completed or attempted or to apply for relief for any final examination or its equivalent.
- 2) For medical or personal situations lasting more than three calendar days, and/or for missed academic work worth 25% or more of the final grade, and/or for any request for relief in a term where the MSAF has not been used previously in that term:
 - Students must visit their Associate Dean's Office (Faculty Office) and provide supporting documentation.

E-Learning Policy

Consistent with the Bachelor of Technology's policy to utilize e-learning as a complement to traditional classroom instruction, students are expected to obtain appropriate passwords and accounts to access Avenue To Learn for this course. Materials will be posted by class for student download. It is expected that students will avail themselves of these materials prior to class. Students should be aware that, when they access the electronic components of this course, private information such as first and last names, user names for the McMaster e-mail account, and program affiliation may become apparent to all other students in the course. The available information is dependent on the technology used. Continuation in this course will be deemed consent to this disclosure. If you have any questions or concerns about this disclosure please discuss this with the course instructor. Avenue can be accessed via <http://avenue.mcmaster.ca>.

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.

Turnitin (Optional)

This course will be using a web-based service (Turnitin.com) to reveal plagiarism. Students submit their assignment/work electronically to Turnitin.com where it is checked against the internet, published works and Turnitin's database for similar or identical work. If Turnitin finds similar or identical work that has not been properly cited, a report is sent to the instructor showing the student's work and the original source. The instructor reviews what Turnitin has found and then determines if he/she thinks there is a problem with the work. Students who do not wish to submit their work to Turnitin.com must still submit a copy to the instructor. No penalty will be assigned to a student who does not submit work to Turnitin.com. All submitted work is subject to normal verification that standards of academic integrity have been upheld (e.g., on-line search, etc.). To see the Turnitin.com Policy, please go to

<http://www.mcmaster.ca/academicintegrity/turnitin/students/>

Protection of Privacy Act (FIPPA)

The Freedom of Information and Protection of Privacy Act (FIPPA) applies to universities. Instructors should take care to protect student names, student numbers, grades and all other personal information at all times. For example, the submission and return of assignments and posting of grades must be done in a manner that ensures confidentiality.

<http://www.mcmaster.ca/univsec/fippa/fippa.cfm>

Academic Accommodation of Students with Disabilities Policy

Students who require academic accommodation must contact Student Accessibility Services (SAS) to make arrangements with a Program Coordinator. Academic accommodations must be arranged for each term of study. Student Accessibility Services can be contacted by phone 905-525-9140 ext. 28652 or e-mail sas@mcmaster.ca. For further information consult McMaster's policy for Academic Accommodation of Students with Disabilities

<http://www.mcmaster.ca/policy/Students-AcademicStudies/AcademicAccommodation-StudentsWithDisabilities.pdf>

Students must forward a copy of the SAS accommodation to the instructor of each course and to the Program Administrator of the B.Tech. Program immediately upon receipt. If a student with a disability chooses NOT to take advantage of a SAS accommodation and chooses to sit for a regular exam, a petition for relief may not be filed after the examination is complete. <http://sas.mcmaster.ca>

Student Code of Conduct

The Student Code of Conduct (SCC) exists to promote the safety and security of all the students in the McMaster community and to encourage respect for others, their property and the laws of the land. McMasterUniversity is a community which values mutual respect for the rights, responsibilities, dignity and well-being of others. The purpose of the Student Code of Conduct is to outline accepted standards of behavior that are harmonious with the goals and the well-being of the University community, and to define the procedures to be followed when students fail to meet the accepted standards of behavior. All students have the responsibility to familiarize themselves with the University regulations and the conduct expected of them while studying at McMasterUniversity.

<http://judicialaffairs.mcmaster.ca/pdf/SCC.pdf> and <http://www.mcmaster.ca/policy/Students-AcademicStudies/StudentCode.pdf>