

Course Outline

1. COURSE INFORMATION

Session Offered	Winter 2017	
Course Name	Formulating Technology Strategy	
Course Code	GEN TECH 4SF3	
Date(s) and Time(s) of lectures	Mondays 7-9:15 pm online	
Program Name	One of the following: Civil Engineering Infrastructure Technology, Software Engineering Technology, Energy Engineering Technologies, Manufacturing Engineering Technology	
Calendar Description	Issues in the development of organizational strategy around technological and market imperatives, emphasizing the competitive mobilization capabilities.	
Instructor(s)	M. Piczak, Dipl.T., B.Comm., MBA	Email: Avenue email only keeping all correspondence within Avenue; only Avenue email is answered Office Hours: By advance appointment/skype

2. COURSE SPECIFICS

Course Description	This course exposes students to concepts associated with providing long term strategic direction to an organization. Within the confines of competing theoretical frameworks for analysis, students will consider strategic options for the successful implementation of technology and change within organizations both profits and not-for-profits.		
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
	ISBN:	www.glo-bus.com	GLO-BUS Software Inc. (approx. \$45 U.S. per person)
	Other Supplies	Source	
Prerequisite(s)			
Corequisite(s)			
Antirequisite(s)	GEN TECH 3FT3, 3SF3, 4FT3		
Course Specific Policies	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 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 this course will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure please discuss this with the course instructor.		

	<p>All assignments submitted for evaluation are completely word processed. Assignments and projects come as WORD files unless otherwise specified so that specific, targeted track change comments can be provided. Everything in this course is submitted to the Dropbox using WORD only. No other file formats are accepted. Marks will be docked for not respecting this instruction and other assignment/project related requirements.</p> <p>Presentations are done using PowerPoint.</p> <p>Students are invited to actively participate during class sessions offering insight, comment, reinforcement, argument, contrary views and underscoring examples. Students are expected to participate in the discussion using their microphones.</p> <p>Most work done in this course is done in groups typical of industry and business practice. All students participate in group work where indicated. Group work is mandatory, no exceptions.</p> <p>All students attend group presentations undertaking various roles including peer assessment. No attendance results in a zero for the assignment.</p> <p>All groups are self-chosen and limited to 5 in a group. Presentations are 12 minutes in length MAX.</p> <p>The ethics/sustainability scope presentation is 2 minutes in length. All images, no words, PowerPoint. A similar scope presentation will be done for the industry/company strategic brief.</p> <p>This course will use a simulation software tool to apply theoretical learning.</p> <p>Student groups can apportion the final weight of any group grade as a matter of motivating individuals to make a fair contribution. 'Offending' individuals should be made aware of concerns with a view to modifying behavior. Where conduct does not change, a table/schedule can be added to the final report reflecting agreed upon weights with all parties aware of the final grade apportionment. The group makes the offending individual aware that this provision is to be triggered.</p>
<p>Departmental Policies</p>	<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>

	Instructor has the right to submit work to software to identify plagiarism.	
3. SUB TOPIC(S)		
Week 1: J9 General Information	Introduction to Strategic Thinking <ul style="list-style-type: none"> - On being a general manager questionnaire - Skills of managers by level within the organization 	
Week 2: J16 What Strategy Looks Like	Seeing what strategy looks and sounds like in practice <ul style="list-style-type: none"> - Environmental scanning models in comparative perspective - Introduction to Glo-Bus simulation to learn strategy and practice decision making Cases: Housing Market in Hamilton U.S. Airline Industry and Southwest Airlines	Glo-Bus introduction
Week 3: J23 Tools of Business and Strategic Planning	Introduction to the tools of business and strategic planning <ul style="list-style-type: none"> - Planning and goal setting - The value proposition - Vision linkages - Business Model Canvass - Metrics - Benchmarking - Key performance indicators Case: ABC Steel Company – “Just a little short on cash”	Quiz 1: 5% Quiz 2: 5% Glo-Bus practice 1 group decision 2 minute ethics/sustainability scope presentations (4-5 slides, no words) using PowerPoint
Week 4: J30 Ethical and Sustainability Conduct	What is the ‘Right Answer’? <ul style="list-style-type: none"> - Ethics in engineering and management - Sustainability in Action Case: The Algo Center, Elliot Lake, Ontario	Glo-Bus practice 2 group decision
Week 5: F6 Case Night 1	On Presenting Case: Canadian Steel Industry	2 minute company/industry scope presentations (4-5 slides, no words), PowerPoint
Week 6: F13 Ethics and Sustainability Presentations	Ethics and sustainability presentations using PowerPoint online. 12 minute presentations max. Groups serve as: observer, evaluator, presenters	One paper per group, WORD, Dropbox. Peer evaluations to Dropbox (1/group)
Mid-term Recess: Monday, February 20 to Sunday, February 26, 2017		
Week 7: F27 At the intersection of leadership and strategic planning	Steve Jobs: Multifaceted man as leader, manager, and human being in shaping strategy <ul style="list-style-type: none"> - 14 Leadership and planning tips per Steve Jobs - Managing a Steve Jobs - Life with and without Steve Jobs, strategic disarray? 	

	<ul style="list-style-type: none"> - Elon Musk as Man, strategic patterns <p>Case: Steve Jobs' strategy upon his 1997 return Internet video: CNN Presents – Steve Jobs, Man in the Machine</p>	
Week 8: M6 Case Night 2	<p>Industry level strengths and weaknesses</p> <ul style="list-style-type: none"> - Elevating traditional business level factors like strengths and weaknesses analysis to the industry level <p>Case: North American auto industry</p>	
Week 9: M13 Wisdom in Engineering and Management	<p>Knowing leadership & wisdom when we see it</p> <ul style="list-style-type: none"> - What leadership sounds like - Exemplars of leadership - Being smart versus being wise in engineering & management 	
Week 10: M20 Not So Random Thoughts on Strategy & General Management	<ul style="list-style-type: none"> - Decision making - Process versus content in management - Common sense in engineering and management - Support building - 14 Strategic mistakes 	
Week 11: M27 Case night 3:	<ul style="list-style-type: none"> - Evertz Communications - Ontario Wine Industry - Cable TV 	
Week 12: A3 Strategic planning in the public/service sector	<ul style="list-style-type: none"> - Applying classic tools of strategy to public and service sector organizations <p>Cases: Bachelor of Technology Programs Strategic Plan 2007 Ontario Liquor Control Board</p>	

Classes end: Thursday, April 6, 2017
Final examination period: Tuesday, April 11 to Thursday, April 27, 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 *dates as per Dropbox*	Weight
Quizzes (2)	10%
Glo Bus (Glo Bus simulation decision rounds; can exceed 100%)	25%
Ethics and Sustainability Case Group Project	10%
Industry/Company Strategic Brief Group Project	10%
Participation	10%
Final Exam	35%
Percentage grades will be converted to letter grades and grade points per the University calendar.	

5. LEARNING OUTCOMES

1. Compare and contrast the characteristics and success behaviours of general managers
2. Undertake environmental scans and defend the same
3. Apply a systematic approach to business case analysis
4. Analyze and evaluate the circumstances where operational plans may be inconsistent with a strategic direction
5. Carry out an analysis of industry level strengths and weaknesses
6. Undertake the role of general manager and play a business simulation game
7. Analyze an ethically questionable/or sustainability related business situation using appropriate theoretical frameworks
8. Use English, grammar & technology effectively and appropriately for written work and oral presentations

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. McMaster University 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 McMaster University.

http://studentconduct.mcmaster.ca/student_code_of_conduct.html