

## MEM5100 Introduction to Engineering Management

### Spring 2021

#### Information about your professor

<b>Instructor(s)</b>	Christian <u>Gary</u> Gudbranson
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<b>Office hours</b>	by appointment only
<b>Schedule</b>	May 4, 2021 – August 3, 2021
<b>Class meeting</b>	Tuesday 7-9 PM
<b>Prerequisite</b>	n/a
<b>Program of Study</b>	Master's degree in Engineering Management

#### APPENDIX A Instructor Profile

## Indigenous Affirmation

### ENGLISH

We pay respect to the Algonquin people, who are the traditional guardians of this land. We acknowledge their longstanding relationship with this territory, which remains unceded. We pay respect to all Indigenous people in this region, from all nations across Canada, who call Ottawa home.

We acknowledge the traditional knowledge keepers, both young and old. And we honour their courageous leaders: past, present, and future.

### ANISHNABE

Ni manàdjiyànànìg Màmìwininì Anishinàbeg, ogog kà nàgadawàbandadjig iyo akì eko weshkad. Ako nongom ega wikàd kì mìgiwewàdj.

Ni manàdjiyànànìg kakina Anishinàbeg ondaje kaye ogog kakina eniyagizidjig enigokamigàg Kanadàng eji ondàpinangig endàwàdjìn Odàwàng.

Ninisidawinawànànìg kenawendamòdjig kije kikenindamàwin; weshkinìgidjig kaye kejeyàdizidjig. Nigijeweninmànànìg ogog kà nìgànì sòngideyedjig; weshkad, nongom; kaye àyànikàdj.



## Course Overview

### Course description



MEM5100 provides an introduction to management and engineering management including the structure of engineering organizations; the importance of accounting and finance, interpersonal skills, decision-making under conditions of uncertainty, and team dynamics. The course will address the ethical, technological and global context of management decision-making, planning and control in engineering management.

**Course Goal and Objectives and Contribution to Program Learning Goals**

Learners are introduced to the discipline of Leadership to apply appropriate knowledge, processes, skills, tools, and techniques can have a significant impact on organization’s success. Participants learn how to assume leadership roles and manage organizations, teams and relevant stakeholders.

The following table identifies

1. Which of the MEM program learning objectives that MEM5100 addresses.
2. The components of the MEM program learning objectives which it addresses.
3. What the student as a result of this course should be able to do.

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Learning Objectives	MEM 5100 Learning Objectives	As a result of this course, students should be able to
<b>MEM-LG1</b> Understand the Organization’s External and Internal Context		
1.1 Understand the structure and functioning of diverse types of private and public organizations involved in the design and delivery of products, processes and services pertaining to technology and engineering, nationally and worldwide.	Introduce ‘Corporate’ (Organization) Structure. <ul style="list-style-type: none"> <li>• Understand the types of Organizational structures.</li> <li>• Understand the business implications of each organizational structure.</li> <li>• Understand the advantages and disadvantages of each type of organizational structure.</li> <li>• Understand Vertical and horizontal integration.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify the type of structure of an organization.</li> <li>• Analyze the business implications of such structures.</li> <li>• Develop potential solutions to organizational issues.</li> </ul>

Learning Objectives	MEM 5100 Learning Objectives	As a result of this course, students should be able to
<p>1.2 Understand the external national and global SLEEPT forces (social, legal, economic, environmental, political and technological) exerting influence on organizations involved in the design and delivery of products, processes and services pertaining to technology and engineering, nationally and worldwide.</p>	<ul style="list-style-type: none"> <li>• With regards to World TRENDS (External forces)</li> <li>• Understand the 6 trends and their impact on companies.</li> <li>• Understand why it is important to track trends.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify Trends affecting an industry.</li> <li>• Analyse the business implications of such trends.</li> <li>• Apply this knowledge to develop potential responses to trends.</li> </ul>
<p>1.3 Understand innovation in the context of the transient/evolving nature of technology and engineering, as well as technology watch in targeted areas of technology &amp; engineering, nationally and worldwide.</p>	<ul style="list-style-type: none"> <li>• Understand what innovation is.</li> <li>• Understand different types of innovation.</li> <li>• Understand the importance of Innovation as an effective reaction to trends.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify sources of innovation which may improve business results.</li> </ul>
<p>1.4 Understand the importance of core organizational values such as teamwork, collaboration, integrity, safe work environment, EDI (equity, diversity and inclusion), CSR (corporate social responsibility), sustainability, betterment of society</p>	<ul style="list-style-type: none"> <li>• Introduce the concepts of Personal and Corporate Values and ethics.</li> <li>• Understand the need for values and ethics (This is done to set the stage for more in-depth exploration in later courses. Basically introduce unease for resolution in later courses.)</li> </ul>	<ul style="list-style-type: none"> <li>• Identify ethical issues in a corporate environment.</li> <li>• Use tools to analyse responses to ethical issues.</li> <li>• Evaluate personal ethic/values with regards to corporate values.</li> </ul>

Learning Objectives	MEM 5100 Learning Objectives	As a result of this course, students should be able to
<b>MEM-LG2</b> Develop Domain and Sub-Domain Knowledge		
2.1 Understand the domain of the profession of engineering management, the specifics of this profession, and how it differs from engineering per se, and from business management.	Understand the profession of Engineering Management <ul style="list-style-type: none"> <li>• What is engineering?</li> <li>• What is business management?</li> <li>• What is engineering management?</li> </ul>	<ul style="list-style-type: none"> <li>• Identify the role of an engineering manager versus technical contributor.</li> </ul>

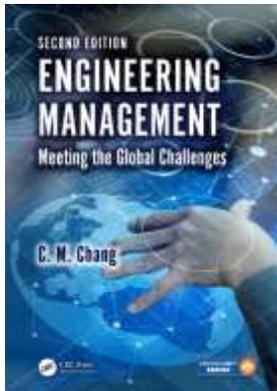
Learning Objectives	MEM 5100 Learning Objectives	As a result of this course, students should be able to
<p>2.2 Demonstrate proficiency in the primary constituents of engineering management, namely:</p> <ul style="list-style-type: none"> <li>i) Leadership and organizational management;</li> <li>ii) Professional responsibility, ethics and legal issues;</li> <li>iii) Information systems management, including research, analytics and forecasting,</li> <li>iv) Strategic planning;</li> <li>v) organizational behaviour &amp; human resource management;</li> <li>vi) Engineering projects management</li> <li>vii) Product &amp; services management, including marketing and sales</li> <li>viii) Operations/processes systems management;</li> <li>ix) Innovation and change management; and</li> <li>x) Financial resource management.</li> </ul>	<ul style="list-style-type: none"> <li>• Introduce the primary constituents of engineering management as a primer. (Introduce (high level) and demonstrate the interaction of each of these constituents. This is done to set the stage for more in-depth exploration in later courses.)</li> </ul>	<ul style="list-style-type: none"> <li>• Identify the constituents engineering managements in an organization.</li> </ul>

Learning Objectives	MEM 5100 Learning Objectives	As a result of this course, students should be able to
<b>MEM-LG3</b> Develop Technical Management Skills		
3.1 Apply deterministic decision-making processes that enable the manager to identify i) what key decisions need to be made; ii) what options are available for each decision; and iii) how to evaluate these options with imperfect information under conditions of uncertainty.	<ul style="list-style-type: none"> <li>• Introduce common tools for assisting decision making.</li> <li>• Apply these tools during case analysis.</li> </ul>	<ul style="list-style-type: none"> <li>• Apply tools to assist decision making.</li> <li>• Develop better decisions by applying appropriate tools in decision making.</li> </ul>
3.3 Apply state-of-the-art accounting and finance tools, technologies and analytics such as comparative statements, fund and cash flow analysis, trend analysis and others, with competence and proficiency.	<ul style="list-style-type: none"> <li>• Introduce as the basics of corporate financial statements. This is done to set the stage for more in-depth exploration in later courses.</li> <li>• Understand basic financial statements such as income statements, balance sheet and cash flow statements.</li> <li>• Understand common financial ratios.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify key components of income statements, balance sheets and cash flow statements.</li> <li>• Analyse these statements at a basic level.</li> </ul>

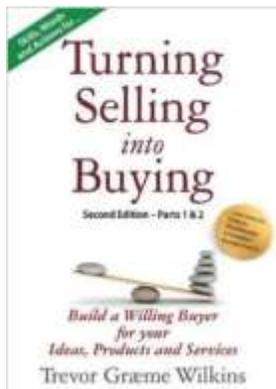
Learning Objectives	MEM 5100 Learning Objectives	As a result of this course, students should be able to
<b>MEM-LG4</b> Develop Interpersonal Management Skills		
<p>4.1 Demonstrate communication and interaction skills in exchanges with peers, internal clients and external clients, in the context of the design and delivery of products, processes and services pertaining to technology and engineering, nationally and worldwide.</p>	<ul style="list-style-type: none"> <li>• Introduce and practice basic presentation skills and concepts for one-on-one and group situations.</li> <li>• Understand the components of effective Presentation Structure.</li> <li>• Understanding how people think and perceive and how it influences presentation style.</li> </ul>	<ul style="list-style-type: none"> <li>• Develop a presentation for one-on-one and/or group situations.</li> <li>• Determin the personal representation system when interacting with people.</li> <li>• Apply appropriate tools to be used before, during and after a presentation.</li> </ul>

### Learning materials

Required Textbooks:



Engineering Management: Meeting the Global Challenge, 2<sup>nd</sup> ed., 2016, by C.M. Chang, published by CRC Press.



Turning Selling in to Buying, 2<sup>nd</sup> Edition, By Trevor Graeme Wilkins.

### Case study 1: Orangewerks

1. Create an account at the [IVEY Publishing web site](#) using your uOttawa eMail.
2. Download the Case Study (901C007) from the IVEY Publishing website. (You have to pay for it.)

### Case Study 2: SchmidCo (IVEY Publishing)

1. Create an account at the [IVEY Publishing web site](#) using your uOttawa eMail.
2. Download case Study (909080) the SchmidCo (A) case study (You have to pay for it.)

### Case Study 3: Amazon.com: On the Brink of Bankruptcy

1. Purchase and download the case study from [Harvard Business School Press](#)
2. The title is "Amazon.com: At the brink of Bankruptcy". Catalogue number 8-09-014.

## Instructional Methods, Teaching Style



**Synchronous** means that the professor and the students interact with each other in real time through live online sessions. We will meet synchronously every week according to the class schedule. We will start by reviewing the highlights of the previous week's learning objectives and assessments. We will then focus on the upcoming week's content and material and cover highlights of those. We will complete the synchronous meetings with a Question & Answer period. Occasionally, industry experts may be invited as guest speakers. Each

synchronous session may include team exercise in online breakout rooms, online polls, discussion via chat or video.



**Asynchronous** delivery does not take place simultaneously. For this course, the material including recordings of the synchronous sessions, additional videos, PowerPoint slides, documents, spreadsheets and other material will be posted on Virtual Campus (Brightspace). Asynchronous work may include team assignments, individual assignments, reading and other online tools including surveys and assessments.



### **Recordings**

Synchronous sessions will be recorded, and a link provided to the class afterwards.



### **Teamwork**

This course is heavily reliant on team work. One of the objectives of the course is to develop effective team member skills. A heavy percentage of the assignments will be team assignments. As a result teams will have to develop a team discipline which includes team synchronous virtual meetings.



### **Technical Requirements**

Synchronous sessions will require computing technology that allows virtual meetings including a quality headset, microphone and camera.



### **Language / Writing**

The course and all material will be provided in English.

## Course Roadmap

Week (date)	Topics/ Themes	In Lecture Activities	Pre-lecture Preparation	Assignment Given	Assessments (Due Today)
1) 5/03/2021	<ul style="list-style-type: none"> <li>Course Introduction</li> <li>Try Zoom Exercise Team Creation, Team Charter</li> <li>Engineering Mgmt. Introduction</li> </ul>	<ul style="list-style-type: none"> <li>Questions by Chat</li> <li>Polling</li> <li>Breakout Groups – Ad hoc</li> </ul>	<ul style="list-style-type: none"> <li>Read(EM): Chap 1</li> <li>My Outcomes Quadrant</li> </ul>	<ul style="list-style-type: none"> <li>Personal PAVF Survey</li> </ul>	<ul style="list-style-type: none"> <li>Participation (Chat)</li> <li>My Outcomes Quadrant (individual)</li> <li>Due date: 7:00 pm 5/04/2021</li> </ul>
2) 5/10/2021	<ul style="list-style-type: none"> <li>Teams &amp; Companies</li> <li>Why People &amp; Teams Conflict</li> <li>Mission Effectiveness Quotient</li> <li>EMP Team creation</li> </ul>	<ul style="list-style-type: none"> <li>Questions by Chat</li> <li>Polling</li> <li>Breakout Teams – PAVF Exercise</li> <li>Breakout Teams - Introductions</li> </ul>	<ul style="list-style-type: none"> <li>Personal PAVF Survey</li> </ul>	<ul style="list-style-type: none"> <li>Team PAVF &amp; comments</li> <li>Assignment 1 – Team Charter</li> </ul>	<ul style="list-style-type: none"> <li>Participation (Chat)</li> <li>Submit PAVF (individual)</li> <li>Due date: 7:00 pm 5/11/2021</li> </ul>
3) 5/17/2021	<ul style="list-style-type: none"> <li>Organizational Structures</li> </ul>	<ul style="list-style-type: none"> <li>Questions by Chat</li> <li>Polling</li> <li>Breakout Teams –</li> </ul>	<ul style="list-style-type: none"> <li>Read(EM): Chap 3, 14</li> </ul>	<ul style="list-style-type: none"> <li>Team Assignment 2 - Organizations</li> </ul>	<ul style="list-style-type: none"> <li>Participation (Chat)</li> </ul>

## Course Roadmap

Week (date)	Topics/ Themes	In Lecture Activities	Pre-lecture Preparation	Assignment Given	Assessments (Due Today)
4)  5/24/2021	<ul style="list-style-type: none"> <li>Corporate Values</li> <li>Introduce 'The Case'</li> </ul>	<ul style="list-style-type: none"> <li>Questions by Chat</li> <li>Polling</li> <li>Breakout Teams – (TBD)</li> </ul>	<ul style="list-style-type: none"> <li>Read(EM): Chap 11,</li> <li>Personal Ethics exercise</li> </ul>	<ul style="list-style-type: none"> <li>Case Study 1 (Team) -TBD</li> </ul>	<ul style="list-style-type: none"> <li>Participation (Chat)</li> <li>Personal Ethics exercise (individual)</li> <li>Team Assignment 2 – Orgs</li> <li>Due date for both assignments: 7:00 pm 5/25/2021</li> </ul>
5)  5/31/2021	<ul style="list-style-type: none"> <li>Trends</li> <li>innovation</li> </ul>	<ul style="list-style-type: none"> <li>Questions by Chat</li> <li>Polling</li> <li>Breakout Teams – (TBD)</li> </ul>	<ul style="list-style-type: none"> <li>Read(EM): Chap 2, 13, 10</li> </ul>	<ul style="list-style-type: none"> <li>Assignment 3 (team): Trends &amp; Innovation</li> </ul>	<ul style="list-style-type: none"> <li>Participation (Chat)</li> <li>Case Study 1 (Group)</li> <li>Due date: 7:00 pm 6/01/2021</li> </ul>
6)  6/07/2021	<ul style="list-style-type: none"> <li>Intro Corporate Accounting &amp; Finance</li> </ul>	<ul style="list-style-type: none"> <li>Questions by Chat</li> <li>Polling</li> <li>Breakout Teams – (Simple Financials)</li> </ul>	<ul style="list-style-type: none"> <li>Read(EM): Chap 7</li> </ul>	<ul style="list-style-type: none"> <li>Assignment 4 (Team) -simple statements &amp; recommendations</li> </ul>	<ul style="list-style-type: none"> <li>Participation (Chat)</li> <li>Assignment 3: Trends - Innovation</li> <li>Due date: 7:00 pm 6/08/2021</li> </ul>

**(TBD- Reading Week (no Class) – Timing may change from Semester to semester - 6/14/2021**

## Course Roadmap

Week (date)	Topics/ Themes	In Lecture Activities	Pre-lecture Preparation	Assignment Given	Assessments (Due Today)
7)  6/21/2021	<ul style="list-style-type: none"> <li>Decision making (tools)</li> <li>Applied research, analysis, identification of new opportunities</li> </ul>	<ul style="list-style-type: none"> <li>Questions by Chat</li> <li>Polling</li> <li>Breakout Teams – Exercise</li> </ul>	<ul style="list-style-type: none"> <li>Read(EM): Chap 2</li> </ul>	<ul style="list-style-type: none"> <li>Case Study 2 (Team)</li> </ul>	<ul style="list-style-type: none"> <li>Participation (Chat)</li> <li>Assignment 4 (Team) - simple statements &amp; recommendations</li> <li>Submit Team Charter Assignment 1</li> <li>Due date for both assignments: 7:00 pm 6/22/2021</li> </ul>
8)  6/28/2021	<ul style="list-style-type: none"> <li>Gaining Commitment(1)</li> <li>How people 'think'</li> <li>Why people buy-in....</li> <li>Walking in the other persons shoes...</li> <li>Features &amp; Functions versus takeaways</li> </ul>	<ul style="list-style-type: none"> <li>Questions by Chat</li> <li>Polling</li> <li>Breakout Teams – Exercise</li> <li>Videos</li> </ul>	<ul style="list-style-type: none"> <li>Read(TSB): Chap 1, 2, 3, 4, 5</li> <li>Video: (TBD)</li> </ul>	<ul style="list-style-type: none"> <li>Assignment 5 (Team)- Takeaways versus features and functions</li> </ul>	<ul style="list-style-type: none"> <li>Participation (Chat)</li> <li>Case Study 2 (Team)</li> <li>Due date: 7:00 pm 6/29/2021</li> </ul>
9)  7/05/2021	<ul style="list-style-type: none"> <li>Gaining Commitment(2)</li> <li>The importance of rapport</li> </ul>	<ul style="list-style-type: none"> <li>Questions by Chat</li> <li>Polling</li> <li>Breakout Teams Exercise</li> <li>Videos</li> </ul>	<ul style="list-style-type: none"> <li>Read(TSB): Chap 7, 8, 9</li> <li>Video: (TBD)</li> </ul>		<ul style="list-style-type: none"> <li>Participation (Chat)</li> <li>Assignment 5 (Team)- Takeaways versus features and functions</li> <li>Due date: 7:00 pm 7/06/2021</li> </ul>

## Course Roadmap

Week (date)	Topics/ Themes	In Lecture Activities	Pre-lecture Preparation	Assignment Given	Assessments (Due Today)
<b>10)</b> 7/12/2021	<ul style="list-style-type: none"> <li>• Presentation Skills</li> <li>• Understanding who, what, etc.</li> <li>• Getting important stuff across concisely &amp; clearly</li> <li>• Gaining commitment to the next step</li> </ul>	<ul style="list-style-type: none"> <li>• Questions by Chat</li> <li>• Polling</li> <li>• Breakout Teams – Exercise</li> <li>• Videos</li> </ul>	<ul style="list-style-type: none"> <li>• Read(TSB): Chap 10</li> <li>• Video: (Elevator Pitch Video)</li> <li>• Background for a pitch (TBD)</li> </ul>	<ul style="list-style-type: none"> <li>• Assignment 6 (Individual) Elevator Pitch</li> </ul>	<ul style="list-style-type: none"> <li>• Participation (Chat)</li> </ul>
<b>11)</b> 7/19/2021	<ul style="list-style-type: none"> <li>• Presentation Skills (2)</li> <li>• The big meeting: structure, order, set-up, Nailing commitment to proceed, BECKON (sales) vs GECKO (Eng) Models</li> </ul>	<ul style="list-style-type: none"> <li>• Questions by Chat</li> <li>• Polling</li> <li>• Breakout Teams – Exercise</li> <li>• Videos7</li> </ul>	<ul style="list-style-type: none"> <li>• Read(TSB): Chap 10</li> <li>• Video: (TBD)</li> </ul>	<ul style="list-style-type: none"> <li>• Assignment 7 / - Presentation based on Case #3</li> </ul>	<ul style="list-style-type: none"> <li>• Participation (Chat)</li> <li>• Assignment 6 (Individual) Elevator Pitch (paper + video/ audio)</li> <li>• Due date: 7:00 pm 7/20/2021</li> </ul>
<b>12)</b> 7/26/2021	<ul style="list-style-type: none"> <li>• Team Presentations (all) -</li> </ul>	<ul style="list-style-type: none"> <li>• Team presentations are evaluation through Peer review (25%) + Professor evaluation (75%)</li> </ul>	<ul style="list-style-type: none"> <li>• n/a</li> </ul>	<ul style="list-style-type: none"> <li>• n/a</li> </ul>	<ul style="list-style-type: none"> <li>• Assignment 7- Presentation – Case #3</li> <li>• Due date: 7:00 pm 7/27/2021</li> </ul>

**Description of Assignments and Methods Used to Evaluate Student Performance**

Assignment Name	Type of Assignment	Percentage of Final Grade	Due date
My Outcomes Quadrant	<ul style="list-style-type: none"> <li>Individual Assignment</li> <li>Identify personal expectations for Course</li> <li>Rubric: based on % completed and actually submitted; Graded at 1, and 1% of final mark</li> </ul>	1%	Week 1
Personal PAVF Survey	<ul style="list-style-type: none"> <li>Individual Assignment</li> <li>Identify personal PAVF profile in preparation for constructing Team PAVF profile</li> <li>Rubric: Based solely on submission: ; Graded at 1, and 1% of final mark</li> </ul>	1%	Week 2
Personal Ethics self-Assessment	<ul style="list-style-type: none"> <li>Individual Assignment</li> <li>Identify personal ethics profile using available online questionnaires</li> <li>Provide ethics self-evaluation in preparation for Lecture on Corporate values and ethics</li> <li>Rubric: Marked solely on completion of a) 5 assessments, and b) providing self-assessment; ; Graded out of 5, and 3% of final mark</li> </ul>	3%	Week 3
Team PAVF Profile	<ul style="list-style-type: none"> <li>Team Assignment</li> <li>Identify personal PAVF profile in preparation for constructing Team PAVF profile</li> <li>Rubric: Based solely on submission; Graded out of 0, and 0% of final mark</li> </ul>	0%	Week 3
Assignment 1 – Team Charter	<ul style="list-style-type: none"> <li>Team Assignment</li> <li>Develop a team charter for operations during the course and broadly for the MEM program</li> <li>Rubric: TBD but based on satisfying the development of each section of the Team Charter; Graded out of 80, and 10% of final mark</li> </ul>	10%	Week 7

<p>Assignment 2 – Organizational Analysis</p>	<ul style="list-style-type: none"> <li>• Team Assignment</li> <li>• Evaluate 10 (simple to moderate) organizational situations using perspectives given and discuss in lecture</li> <li>• <b>Rubric:</b> Marked out of 30, 3 marks per question with marks associated with each of the following: Answer(1), Provide substantiation for answer(1), Provide real example(1); Graded out of 30, and 5% of final mark</li> </ul>	<p>5%</p>	<p>Week 4</p>
<p>Case Study 1 - Corporate Ethics and Values</p>	<ul style="list-style-type: none"> <li>• Team Assignment</li> <li>• Analyze and provide recommendations on a corporate ethical and /or values situation</li> <li>• <b>Rubric:</b> Marks assigned for each of the following: Understanding the problem, identifying the options, recommendation, substantiation of recommendation; Graded out of 10, and 10% of final mark</li> </ul>	<p>10%</p>	<p>Week 5</p>
<p>Assignment 3: Trends &amp; Innovation</p>	<ul style="list-style-type: none"> <li>• Team Assignment</li> <li>• Identify the trends in a given industry/situation, articulate the issues with regards to the trends, suggest responses to those trends, Provide examples.</li> <li>• <b>Rubric:</b> Marks associated with each of the following: Identify Trends and/or innovations, identify business issues for each, develop solutions to address, given examples; Graded out of 10, and 5% of final mark</li> </ul>	<p>5%</p>	<p>Week 6</p>
<p>Assignment 4 - Simple Statements &amp; Recommendations</p>	<ul style="list-style-type: none"> <li>• Team Assignment</li> <li>• Identify key numbers and create a simple financial statement and balance sheet. Provide a recommendation</li> <li>• <b>Rubric:</b> Marks are associated with each of: Correct identification of statement numbers, Identify potential options, recommendation and substantiation; Graded out of 10, and 5% of final mark</li> </ul>	<p>5%</p>	<p>Week 7</p>

<p>Case Study 2 –Decision Making Tools</p>	<ul style="list-style-type: none"> <li>• Team Assignment</li> <li>• Analyze a corporate case using a decision tool and use results to provide a recommendation</li> <li>• <b>Rubric:</b> Marks are associated with the following: Correct identification of issues and potential options, effective use of a decision support tool, recommendation and substantiation ; Graded out of 10, and 10% of final mark</li> </ul>	<p>10%</p>	<p>Week 8</p>
<p>Assignment 5 – Build Offering Takeaways (versus Features and Functions)</p>	<ul style="list-style-type: none"> <li>• Team Assignment</li> <li>• Using a product or service of choice demonstrate the development of Takeaways</li> <li>• <b>Rubric:</b> Marks are associated with the following: Correct differential between Features and functions and takeaways, Identification of takeaways. Correct use of composite takeaways Graded out of 10, and 5% of final mark</li> </ul>	<p>5%</p>	<p>Week 9</p>
<p>Assignment 6 - Elevator Pitch</p>	<ul style="list-style-type: none"> <li>• Individual Assignment</li> <li>• Develop an elevator pitch for a product or service, provide text and voice versions</li> <li>• <b>Rubric:</b> Marks are associated with the following: Correct order and use of the key components of an elevator pitch, conciseness, correct grammar, voice; Graded out of 10, and 10% of final mark</li> </ul>	<p>10%</p>	<p>Week 11</p>
<p>Assignment 7- Presentation</p>	<ul style="list-style-type: none"> <li>• Team Assignment</li> <li>• Using the results of an assigned case study; analyze the case, develop recommendations and present to class synchronously</li> <li>• <b>Rubric:</b> Marks are associated with the following: Identification of key issues, development of options, use of decision tool to support recommendation, substantiated, use and order of presentation structure (e.g. BECKON), avoidance of reading, confidence, Peer review will also be used (25% of mark). Graded out of 100, and 25% of final mark</li> </ul>	<p>25%</p>	<p>Week 12</p>

Participation	<ul style="list-style-type: none"> <li>Grading is determined by attendance as recorded by Online tool, participation in chat, and peer review of participation in Team assignments. Graded out of 20, 10% of final mark</li> </ul>	10%	
Quizzes	<ul style="list-style-type: none"> <li>No Quizzes planned at this time</li> </ul>		
Final Exam	<ul style="list-style-type: none"> <li>No Final exam</li> </ul>		

## Policies

### Assignment-related policies

#### (1) Missed assignments

**DEADLINES FOR ALL SUBMISSIONS ARE NOTED EARLIER IN THIS COURSE OUTLINE**

Learners are responsible for being well aware of these deadlines and must submit all assignments by the time / day they are due. Without a valid reason discussed with the professor well in advance [minimum of four working [4] days prior to the due date], no accommodation may be made for any missed or late deliverable.

Late assignments will incur adjustment penalties to the earned grade as follows:

#### Penalties for late assignments

Handed in on the 1st day (within 24 hours) after due date	25% deduction
Handed in on the 2 <sup>nd</sup> day (between 24-48 hours) after due date	50% deduction
Handed in <i>after</i> the second day after the due date	100% deduction *

\* but may still be evaluated for feedback purposes only

(2) Request for Deferrals: Requests for a deferral for a report submission due to medical reasons or due to a scheduling conflict must go directly to Student Services and request a deferral.

**Please note that it is not possible to submit extra course work in order to improve your mark.**

### **Intellectual property (IP) rights**

(1) All materials prepared by the course professor, including lecture notes, class handouts and other materials that will be made available from time to time, are protected by copyright. Copying or scanning them or posting them on a website is therefore a violation of copyright and is illegal.

(2) All rights reserved. No part of this document may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without prior written permission from the professor.

### **Beware of academic fraud**

University of Ottawa Academic Regulation 14 defines academic fraud as “any act by a student that may result in a distorted academic evaluation for that student or another student. Academic fraud includes but is not limited to activities such as:

- a) Plagiarism or cheating in any way;
- b) Submitting work not partially or fully the student’s own, excluding properly cited quotations and references. Such work includes assignments, essays, tests, exams, research reports and theses, regardless of whether the work is written, oral or another form;
- c) Presenting research data that are forged, falsified or fabricated;
- d) Attributing a statement of fact or reference to a fabricated source;
- e) Submitting the same work or a large part of the same piece of work in more than one course, or a thesis or any other piece of work submitted elsewhere without the prior approval of the appropriate professors or academic units;
- f) Falsifying or misrepresenting an academic evaluation, using a forged or altered supporting document or facilitating the use of such a document;
- g) Taking any action aimed at falsifying an academic evaluation.”

**The Telfer School of Management does not tolerate academic fraud.** Please familiarize yourself with the guidance provided at: [Academic fraud guidance](#).

## Zero tolerance for sexual violence

The University of Ottawa will not tolerate any act of sexual violence. This includes acts such as rape and sexual harassment, as well as misconduct that take place without consent, which includes cyberbullying. The University, as well as various employee and student groups, offers a variety of services and resources to ensure that all uOttawa community members have access to confidential support and information, and to procedures for reporting an incident or filing a complaint. For more information, please visit [Sexual violence: support and prevention](#).

## Resources

### uOttawa Student Success Team

Throughout your time in the Master of Engineering Management program, you will have the Student Success Team to support you along the way! The Student Success Team will be with you from the start of your first class until you graduate and will be a main point of contact at University of Ottawa.

You can expect your Online Student Success Advisor to:

- Have a thorough understanding of program requirements, university policies, procedures, and requirements, and effectively communicate them to you;
- Provide a trusting environment where you can share your thoughts, aspirations, concerns, and interests;
- Provide you with the available resources to aid with your success in your program;
- Carefully listen to and address your questions, concerns, and inquiries; and
- Continue to encourage and support you as you become more comfortable at University of Ottawa.

We are looking forward to working with you!

T: 613-368-6474

[studentsuccess@online.uottawa.ca](mailto:studentsuccess@online.uottawa.ca)

**Technical resources**

This site is compatible with [Chrome](#), [Firefox](#) or [Microsoft Edge](#) – which are free of charge. It is recommended to check your browser before starting.

	<p><b>Virtual Campus (Brightspace)</b></p> <p>Brightspace is the virtual campus platform of Ottawa University.</p> <p><a href="#">Learn more</a></p> <p><a href="#">Technical support</a></p>
	<p><b>Pulse Mobile Application</b></p> <p>Pulse brings news, deadlines, and grades together in one place so that you can spend more time learning.</p> <p><a href="#">Download the application</a></p>
	<p><b>Office 365</b></p> <p>Achieve more with Microsoft Office 365. Any time, any place, any device. Take your files with you wherever you go. Continue using familiar tools like Word, Excel and PowerPoint, and discover new collaborative applications like Teams and OneDrive. Access your email and other tools from any Internet browser. Download Microsoft on up to five of your own devices. All your data is stored in the cloud in Canada. Office suite applications can be downloaded from a mobile phone or computer (by registering with your <a href="#">uoAccess</a>). <a href="#">Login</a> to access Microsoft 365 online and see the download options.</p>

	<p><a href="#">Login</a></p> <p><a href="#">Virtual Training: Introduction to Office 365</a></p>
	<p><b>Teams</b></p> <p>What is MS Teams: The tool has collaborative features facilitating an easy communication: chat, audio and video teleconferencing, screen sharing and many other functions.</p> <p>You will be able to communicate with your colleagues who have been activated for MS Teams.</p> <p><a href="#">Learn more</a></p>
	<p><b>Zoom</b></p> <p>Using University of Ottawa Zoom Account</p> <p>A platform, available free of charge, allowing you to attend your courses at a distance as if you were in a classroom.</p> <p><a href="#">Learn more</a></p>

## uoAccess

Your uoAccess account is used to access many web systems at the University of Ottawa. Setting up your security questions and recovery email facilitates changing and managing the password of your account. As soon as you get your uoAccess account information, set up your security questions, your recovery email address, and then change your password. You can do all this yourself with ease anytime and any place.

### [Password management](#)

#### Fully online and blended course.

Consult the guide for students.

### [Guide for students](#)

## Library

Here is information on how to access library electronic resources from off-campus:

### [Access virtual library](#)

When first connecting to the library resources, you will be prompted to enter your login information:

- **Username:** The part before the @ in your uOttawa.ca email address.
- **Password:** To create or reset your password, visit the uoAccess page <https://it.uottawa.ca/accounts/password-management>

If you still have problems logging in or accessing an article, use the [Service Desk request form](#).



### Academic accommodation services

Learners who have a disability or functional limitation and who need adaptive measures (changes to the physical setting, arrangements for exams, learning strategies, etc.) to progress or participate fully in university life should contact Access Service right away:

- By visiting our office on the third floor of the Desmarais Building, Room 3172
- By filling out the [online registration form](#)
- By calling us phone at 613-562-5976

Access Service designs services and implements measures to break down barriers to learning for learners with physical or mental health problems, visual impairments or blindness, hearing impairments or deafness, permanent or temporary disabilities, or learning disabilities.

Please note that the University of Ottawa is affiliated with the AERO and ACE services, which aim to adapt accessible educational materials for students with perceptual disabilities. If you have any questions, consult the [Library \(Accessibility\)](#) or contact SASS (by email at [adapt@uOttawa.ca](mailto:adapt@uOttawa.ca) or by phone at 613-562-5976 for textbooks.

### Academic Writing Help Centre (AWHC)



When working on any of your written assignments, please keep in mind that all written submissions are expected to be grammatically sound (see Writing Quality expectations under Appendix 3: U Ottawa Course Policies) and make appropriate use of research where applicable on how to avoid Academic Fraud. Regarding writing quality, see the information on University of Ottawa Writing/Learning resources below for further assistance:

- The [Academic Writing Help Centre](#), University of Ottawa.
- *The [Elements of Style](#)* (Strunk & White). Also available at the library.
- [APA style](#) (Also see the Quick APA guide posted on our Brightspace page)

### **Career services**

The [Career Development Centre](#) offers a variety of career development services and resources that allow you to recognize and develop the skills you will need for your transition into the workforce.

### **Counselling and coaching services**

The [Counselling and Coaching Service](#) can help you in several ways. They offer you the following types of counselling:

- personal counselling
- career counselling
- counselling in study methods

### **Wellness/Mental Health Resources**

For information resources about wellness and mental health, visit [University of Ottawa | My Health and Wellness](#).

## Personal Ethic Statements

The Telfer School of Management asks that students sign and submit with their deliverables the Personal Ethics Agreement form. Two versions of this form exist: one for **individual assignments**, and one for **group submissions**. Assignments will not be accepted or marked if this form is not submitted and signed by all authors of the work. We hope that by making this personal commitment, all students will understand the importance the School places on maintaining the highest standards of academic integrity.

Form to be signed and submitted with submitted assignments.

**APPENDIX B Personal Ethics Statements for Individual Assignments.**

**APPENDIX C Personal Ethics Statements for Group Assignments.**

APPENDIX A

ONLINE  
**MEM** | Master of Engineering Management

Take the lead.  
Accelerate your future.

Gary Gudbranson, CMC

MEM 5100 Introduction to Engineering Management

“The difficult we do now; the impossible takes a bit longer...”

## PROFILE

### Summary

A senior marketing executive with experience also encompassing product launch, market, alliances/partnerships, channel development and product strategy. I have a track record of building motivated teams.

### Career Driver

Building successful brands, creating products that customers **want** to buy and building the marketing programs to drive revenue is what turns my crank.

### Expertise

Branding  
Marketing  
Direct Marketing  
Digital (Social) Marketing  
Channel Development  
Media & Public Relations  
Product Management  
Supply Chain

### Illustrative Accomplishments

#### Mentoring, Teaching

- Consulting practice to small businesses since 2001: Medical, software, engineering
- Teaching business topics at both graduate and undergraduate level at Algonquin College
- EMP5100 teacher (Winter 2019, 2020 – 4 classes online due to Covid-19) and CMC Mentor for the uOttawa MBA program

#### Online Channels

- Founder and primary author for three blogs... with associated social network
- Developed and execute online strategies for NUVO and Precam, and clients like DOT
- Architect of the Precam intell**FINDER**™ an online community to foster industry/academic commercialization of innovation

#### Lead Generation, Acquisition & Retention

- Created lead generation infrastructure encompassing AND integrating multiple “tools” including database marketing, email, and social media for ServicePlus, NUVO, and multiple clients.

## APPENDIX A

### Marketing

- Drove branding for JetForm, ServicePlus, Kiocwork, NUVQ, Precam...
- Have managed all aspects of the marketing function: research, product marketing, event management, communications, lead generation, web and social media presence.
- Select and manage agency of record, advertising campaigns
- Strategic Alliances, Partnerships, Supply Chain
- Built strategic alliance programs for both domestic (North America) and international markets
- A new partner revenue streams for JetForm, Xerox, contributed \$1M revenue after 9 months

### Product Management & Marketing

- Productized a service portfolio into 4 brands; devising pricing models that tripled sales at NUVQ
- Launched in Tempo, the core of JetForm eProcess repositioning strategy: ultimately gaining a #1 ranking in the administrative workflow market (Gartner MQ)
- Repatriated product management and rationalized products at JetForm

### Education & Professional Designations

- **CMC** (Certified Management Consultant), 1988
- **MBA** (Dean's List), McMaster University, 1983
- **M.Sc./B.Sc.** (Biochemistry), University of Western Ontario, 1981/1978

### Employment History

- **Adjunct Professor** – University of Ottawa (2018-Present)
- **Professor, Algonquin College** (2013-Present)
- **Franchise Owner** – Midas on Bank, Midas Gatineau (2012-present)
- **Client Outlook Inc.**, VP, Business Development (2010)
- **Precam Incorporated**, Director of Marketing: VP, Operations (2005-2010)
- **NUVO Network Management Inc.**, Vice President, Marketing (2002-2005)
- **Gudbranson & Associates Incl.**, Virtual CMO (2001-present)
- **NetStone Communications Inc.**, Vice President, Sales & Marketing (2000-2001)
- **ServicePlus Corporation**, VP, Marketing: EVP, Operations (1999-2000)
- **JetForm Corporation**, Director, Product Management, VP, Market Development (1996-1999)
- **Branham Group Inc.**, Partner (1990-1996)
- **Choreo Systems Inc.**, Director, Technical Services (1987-1990)
- **Office Smiths Inc.**, Director, Business Development (1983-1987)

### Directorships

- **Carefor Health & Community Services**, Member Board of Directors (2009-2014)
- **Institute of Certified Management Consultants of Ontario**, Board Member (1990-1992)



cgudbran@uOttawa.ca



[linkedin.com/in/garygudbranson](https://www.linkedin.com/in/garygudbranson)

**APPENDIX B**

## Personal ethics statement for individual assignments

Form to be signed and submitted with submitted assignments.

**Individual Assignment:**

By signing this Statement, I am attesting to the fact that I have reviewed the entirety of my attached work and that I have applied all the appropriate rules of quotation and referencing in use at the University of Ottawa, as well as adhered to the fraud policies outlined in the Academic Regulations in the University's Undergraduate Studies Calendar. [Academic Fraud Webpage](#)

---

Course code and name

---

Assignment name

---

Signature

---

Date

---

Last Name (print), First Name (print)

---

Student Number

APPENDIX C

## Personal ethics statement for group assignments

Form to be signed and submitted with submitted assignments.

### Group Assignment:

By signing this Statement, I am attesting to the fact that I have reviewed not only my own work, but the work of my colleagues, in its entirety.

I attest to the fact that my own work in this project meets all of the rules of quotation and referencing in use at the University of Ottawa, as well as adheres to the fraud policies as outlined in the Academic Regulations in the University's Undergraduate Studies Calendar. [Academic Fraud Webpage](#)

To the best of my knowledge, I also believe that each of my group colleagues has also met the rules of quotation and referencing aforementioned in this Statement.

I understand that if my group assignment is submitted without a signed copy of this Personal Ethics Statement from each group member, it will be interpreted by the University of Ottawa that the missing learner(s) signature is confirmation of non-participation of the aforementioned learner(s) in the required work.

\_\_\_\_\_

Course code and name

\_\_\_\_\_

Assignment name

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Group number and members

\_\_\_\_\_

Signature

\_\_\_\_\_

Date

\_\_\_\_\_

Last Name (print), First Name (print)

\_\_\_\_\_

Student Number