

SCI 4000 (T02) / MBIO 7160 (3.0 CH)
The Science Entrepreneurial Mindset
Summer 2021 (May 10 – June 17)
Virtual Classroom, TR 2:15 p.m. – 5:00 p.m.

INSTRUCTOR

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The expectation is that under normal circumstances emails will be answered within two business days. Please check your myumanitoba.ca email address regularly for updates and use it to correspond with instructors.
Web Site: UMLearn: www.umanitoba.ca/d2l
Zoom: For synchronous activities your zoom username must include your first and last names so you can be identified as a member of the class. Interactions on zoom must be respectful to all and reflect behaviours you would use in a work or classroom setting.
SAS: Course instructors are willing to meet with students to discuss the accommodations recommended by Student Accessibility Services.
Materials: There is no required textbook. Any required readings/links will be posted on UM Learn.

COURSE DESCRIPTION & OBJECTIVES

This is a pilot course that has been designed to cultivate the entrepreneurial mindset.

Science students may not traditionally see entrepreneurship as a career path – but science is at the heart of many businesses. The main objectives of this course are to introduce you to what entrepreneurship really means, help you to develop an entrepreneurial mindset, and show how entrepreneurship may be the right career path for you.

This will be a highly interactive (and fun!) course wherein you will work as part of a team, be graded for in-class participation, and meet with guest speakers – entrepreneurs who were once Science students like you. It is important that you come to class having completed the pre-class readings so you can fully participate and get the most out of the content. There is no requirement for you to have an idea for a business prior to registering – this course is here to encourage you to consider entrepreneurship and point you to appropriate resources.

COURSE FORMAT

All classes will be delivered synchronously via Zoom. The lectures will be interactive so you will need to have a computer or tablet with a working camera and microphone. The classes will not be recorded, and attendance at all classes is required. If you have a legitimate reason for missing a class, let the instructor know as soon as possible. There are two classes that will be used specifically to work on the group pitch, and the instructor will be available during that time to answer any questions.

COURSE SCHEDULE

| Class # | Date | Topic(s) | Post-Class Tasks/Assignments |
|---------|--------|--|---|
| 1 | 11-May | <ul style="list-style-type: none"> Course Introduction Terminology Innovators Academy Modules 1 & 2 | <ul style="list-style-type: none"> Sign-up for League of Innovators (LOI) Innovators Academy Reminder to attend May 13 webinar (separate link to be provided) |
| 2 | 13-May | <ul style="list-style-type: none"> HR Panel Discussion Introduction to SWOT Analysis (Strengths, Weaknesses, Opportunities, Threats) | <ul style="list-style-type: none"> Assignment 2: Personal SWOT Analysis (Due Monday, May 17, 4:00 p.m.) |
| 3 | 18-May | <ul style="list-style-type: none"> Entrepreneurial Mindset: Presentation & Group Discussion | <ul style="list-style-type: none"> Watch the Stu Clark Centre for Entrepreneurship webinar "No Idea, No Problem" before the next class (youtube.com/watch?v=iM7QF0chpWQ) |
| 4 | 20-May | <ul style="list-style-type: none"> No Idea, No Problem Group Discussion Innovators Academy Modules 3 & 5 Idea Generation Activity | <ul style="list-style-type: none"> Assignment 3: Podcast Review (Due Tuesday, May 25, 2:00 p.m.) |
| 5 | 25-May | <ul style="list-style-type: none"> Podcast Review Group Discussion Business Planning Process & Lean Canvas Preparation for Panel Discussion | <ul style="list-style-type: none"> Assignment 4: Lean Canvas (Due Friday, May 28, 4:00 p.m.) |
| 6 | 27-May | <ul style="list-style-type: none"> Faculty of Science Alumni Panel 1 Post-Panel Group Discussion | <ul style="list-style-type: none"> None |
| 7 | 1-Jun | <ul style="list-style-type: none"> Market Validation Presentation In-Class Portion of Market Validation Assignment | <ul style="list-style-type: none"> Assignment 5: Market Validation (Due Thursday, June 3, 2:00 p.m.) |
| 8 | 3-Jun | <ul style="list-style-type: none"> Building & Delivering the Perfect Pitch Presentation Begin working on Group Pitch | <ul style="list-style-type: none"> Assignment 6: Pitch Event (Presented In-Class Thursday, June 15) |
| 9 | 8-Jun | <ul style="list-style-type: none"> Working Class for Group Pitch | |
| 10 | 10-Jun | <ul style="list-style-type: none"> Working Class for Group Pitch | |
| 11 | 15-Jun | <ul style="list-style-type: none"> Group Pitch Event Preparation for Panel Discussion | <ul style="list-style-type: none"> None |
| 12 | 17-Jun | <ul style="list-style-type: none"> Faculty of Science Alumni Panel 2 Class Wrap-Up | <ul style="list-style-type: none"> Assignment 7: Reflection Paper (Due Thursday, June 24, 4:00 p.m.) |

The VW date is **June 8th** and you will have feedback on the majority of assignments before that date.

ASSIGNMENT SUMMARY

Important Note: The assignments below are based on the assumption that the class size will be large enough to include group work for some assignments. If the final enrollment is not conducive to this, the group assignments will be amended slightly. The objective of the assignment will remain the same, but the path to getting there will shift, much like an entrepreneurial journey may change over time.

Assignment 1 - Class Participation (Ongoing): 20%

This course will be interactive (and fun!), and to encourage active engagement you will receive marks for your participation. Active engagement includes arriving to the virtual class on time, asking questions to guest speakers/classmates/instructor, actively listening to classmates/guest speakers/instructors, and contributing to class discussions and break-out sessions. Two of the classes will be dedicated to working classes for the group pitch assignment, so participation will not be evaluated on these days.

20 points total, 2 points per class (2 working sessions will not be evaluated)

| Points | Tasks |
|--------|---|
| 0.5 | Arrived on-time and stayed engaged throughout class |
| 0.5 | Asked questions to guest speakers/classmates/instructors |
| 0.5 | Actively listened to guest speaker/classmates/instructors |
| 0.5 | Contributed to group discussions and break-out sessions |

Assignment 2 – Personal SWOT (Strengths, Weaknesses, Opportunities, Threats) Assessment (Due Monday, May 17 4:00 p.m.): 10%

In class 2 (May 13), we will be reviewing what a SWOT analysis is, and how to approach them. One objective of this assignment is for you to actively go through the process of completing a SWOT. The other objective is to demonstrate how understanding your internal strengths and weaknesses along with external opportunities and threats can help you achieve a specific goal.

A template for the SWOT will be provided to you. Module 2 of the League of Innovators (LOI) Innovators Academy includes a supplemental workbook¹ that you may wish to use to help you develop your personal SWOT, but only the final SWOT will be submitted for evaluation.

10 points total

| Points | Tasks |
|--------|---|
| 1 | Identified a measurable goal |
| 2 | Identified 2 internal strengths |
| 2 | Identified 2 internal weaknesses |
| 2 | Identified 2 external opportunities |
| 2 | Identified 2 external threats |
| 1 | Wrote clear, concise statements with no spelling errors |

¹ League of Innovators, Innovators Academy. *Personal SWOT* [PDF File]. Retrieved from <https://www.loiinnovators.academy/before-your-business-comes-you>.

Assignment 3 – Podcast Review (due Tuesday, May 25 4:00 p.m.): 10%

This purpose of this assignment is to introduce you to unique and interesting stories of entrepreneurs who started well-known companies. Pick an episode of the *How I Built This with Guy Raz*² podcast to listen to. Choose a company that you are familiar with, but one where you don't know the details of how the company was started. Before listening to the episode, write down a few notes on your current perceptions about the company – what do you think of the founder as an entrepreneur, do you think the company had quick success, etc. After listening to the episode, how did your perceptions compare to the reality of the situation? Write a brief (max 1 page, 1.15 spacing, and 11 point font) paper discussing this, as well as how the founder(s) had an entrepreneurial mindset and what problem they solved.

You have the option to listen to the episode on the podcast [website](#), and it is available on many popular platforms such as Apple Podcasts, Google Podcast, and Spotify.

10 points total

| Points | Tasks |
|--------|---|
| 2 | Described perceptions about company before listening to episode |
| 2 | Compared perceptions with the reality they heard in the episode |
| 2 | Identified how the founder had an entrepreneurial mindset |
| 2 | Identified the key problem solved by the founder |
| 2 | Wrote a clear, concise paper with no spelling errors |

Assignment 4 – Lean Canvas (due Friday, May 28 4:00 p.m.): 10%

Class 5 (May 25) will include an introduction to a lean canvas. Following the class, your assignment is to prepare a lean canvas using the business you picked for your podcast assignment. Since this will be for an existing business, try to approach this based on what the situation may have been when the company was starting out. The goal of this exercise is to help you go through the steps of identifying the key components in a lean canvas through the eyes of an entrepreneur.

A template for this assignment will be provided to you. We will not be covering cost and revenue structure in detail, so these two sections of the lean canvas do not need to be completed.

10 points total

| Points | Tasks |
|--------|---|
| 1 | Identified problem |
| 1 | Identified alternatives |
| 1 | Identified solution |
| 1 | Identified key metrics |
| 1 | Identified unique value proposition |
| 1 | Identified unfair advantage |
| 1 | Identified channels |
| 1 | Identified customer segments |
| 1 | Identified early adopters |
| 1 | Wrote clear, concise statements with no spelling errors |

² Raz, G. (Host) (2016-current). *How I Built This with Guy Raz* [Audio Podcast]. NPR. <https://www.npr.org/podcasts/510313/how-i-built-this>.

Assignment 5 – Market Validation (due Thursday, June 3 2:00 p.m.): 10%

The first part of class 7 (June 1) will be a presentation on market validation. During the second part of the class, you will be taking the ideas your group* generated in Class 4 (May 20) and having break-out sessions with your classmates in other groups to ask market validation questions. The ultimate outcome will be to determine if someone would buy the item/service and how much they would pay. After gathering this feedback, you will meet back with your group to discuss the feedback and decide which idea you will use for the group pitch in Class 11 (June 15).

*If the class size is not conducive to group work, the format of this assignment will be adjusted. Additional details on this assignment will be provided closer to the time.

10 points total (table below assumes class size is conducive to group work)

| Points | Tasks |
|--------|---|
| 2 | Summarized the ideas being validated |
| 6 | Summarized the feedback from classmates |
| 2 | Wrote clear, concise statements with no spelling errors |

Assignment 6 – Pitch Event in Class 11 (in-class presentation Assignment 6): 25%

To put together everything you have learned, you will work with your team** (assigned in Class 4) to deliver a pitch to the full class in Class 11 (June 15).

**If the class size is not conducive to group work, the format of this assignment will be adjusted. Additional details on this assignment will be provided closer to the time.

Assignment 7 – Reflection Paper (due Thursday, June 24th): 15%

The main objectives of this course are to introduce you to what entrepreneurship really means, help you develop an entrepreneurial mindset, and show you how entrepreneurship may be the right career path for you. This is now the time to reflect on what you have learned and what has been the most valuable to you in this course. Write a brief (max 2 pages, 1.15 spacing, and 11 point font) paper discussing what you found to be the most important messages in this course, and how you can apply this in your life either as an entrepreneur or an intrapreneur.

15 points total

| Points | Tasks |
|--------|---|
| 6 | Identified what they found to be the most important messages in the course |
| 6 | Identified how to apply this to their future as an entrepreneur or intrapreneur |
| 3 | Wrote a clear, concise paper with no spelling errors |

Letter grades will be assigned by taking into consideration the grade distribution in the class and the University of Manitoba's descriptors A+ (Outstanding), A (Excellent), B+ (Very Good), B (Good), C+ (Satisfactory), C (Adequate), D (Marginal), F (Failure); see <http://umanitoba.ca/student/records/grades/686.html>. The goal is to provide grades that represent performance in the context of the class; the grades will not be curved to meet an expected distribution, but conversion of percentages to letter grades will be at the discretion of the instructors.

The grading scheme generally, but not always, will be close to the following: A+ (>90%), A (80-89.9%), B+ (75-79.9%), B (70-74.9%), C+ (65-69.9%), C (60.0-64.9%), D (50-59.9%), F (<50%). Note that in some courses, an A+ is received only for numerical grades of >93% (Nursing, Asper) so there is precedent for shifting grade boundaries higher than those listed above.

Late assignments will be accepted, with a 10% penalty for each day (24 hour period) the assignment is late.

GROUP WORK

This course will require group work if the class size is conducive to this, and groups will be assigned by the instructor. All group members are expected to actively participate and contribute to the group projects. Group projects are subject to the rules of academic integrity.

ACADEMIC INTEGRITY AND DISHONESTY

Guidelines are stated in your calendar regarding University policy with respect to academic dishonesty (particularly plagiarism, impersonation and cheating). The Academic Integrity section of the 2020/2021 academic calendar can be found [here](#), and includes specific examples.

The Faculty of Science web page has detailed information, with which you must become familiar: <https://sci.umanitoba.ca/students/undergraduate-students/academic-resources/academic-integrity-2>
Please read and follow these guidelines and ask if you have any questions.

Watch the Faculty of Science video outlining issues regarding academic integrity in the context of on-line examinations, and the consequences of cheating: (7 min) <https://youtu.be/Ok-lilm4SeE>

There is no final exam for this course, but you must be present for the in-class presentations.