

**The Clinic@RJC - Innovation Lab
Course Outline**

**Strategic Management Area
DeGroot School of Business
McMaster University**

COURSE OBJECTIVE

This course is designed to provide you with a real-world experience of entrepreneurship and innovation, the process of transferring ideas into applications.

INSTRUCTOR AND CONTACT INFORMATION

Dr. Goran Calic
Academic in Residence
calicg@mcmaster.ca
Office: DSB #225
Office Hours: upon request
Tel: (905) 525-9140 x23967

Course Website: <http://innovationclinic.ca/>

COURSE ELEMENTS

Avenue:	Yes	Leadership:	Yes	IT skills:	No	Global view:	Yes
Participation:	Yes	Ethics:	Yes	Numeracy:	Yes	Written skills:	Yes
Evidence-based:	Yes	Innovation:	Yes	Group work:	Yes	Oral skills:	Yes
Experiential:	Yes	Guest speaker(s):	Yes	Final Exam:	No		

COURSE DESCRIPTION

Innovation is the process of attempts to develop and introduce new and improved ways of doing things. The first stage of this process refers to creativity or **idea generation**. The subsequent stage is **implementing ideas** toward better procedures, practices, and products.

This course focuses on implementation. As such, it is an opportunity for you to work with McMaster inventors in order to apply theory research.

To do so, you will move the business interest of their invention forward by creating commitments from interested stakeholders, thus converting them into partners. In practice, this is accomplished through relationship building (e.g., technology exposition, conference, board meeting) wherein partnerships are created. Such an undertaking requires that each application team (you and your teammates) grasps the underlying technology, has a basic understanding of the value the technology can generate, and the potential market the technology can serve. You should understand what the technology needs to move closer to application and how stakeholders can benefit from becoming partners. Partners generate significant value. **A partner augments the resources of the entrepreneurial team through capital, his or her network, and new knowledge.** Should you accomplish this, you will have added important resources to new venture and moved the business interest forward.

This course uses the experiential learning method – students learn by engaging in the process of innovation and entrepreneurship. This course develops skills that can be applied in any circumstance (e.g., non-for-profit, industry, start-up) where technology should be transferred to the market.

LEARNING OUTCOMES

Upon completion of this course, students will be able to complete the following key tasks:

- Understand how to prioritize action when resources are limited
- Maximize learning from low-cost experiments and customer interaction
- Learn to develop and communicate a value proposition

COURSE MATERIALS AND READINGS

Weekly as assigned.

EVALUATION

The course offers a balance of individual and shared evaluation methods. Your final grade will be calculated as follows:

Components and Weights

Log Book	10x Weekly log of activities (individual) (2% each)	20%
Presentation to the Board	2x Presentations (shared) (5% each)	10%
Participation	(individual)	20%
Relationship Building	1x Event to create partnerships (shared)	20%
Perfect Pitch	Innovation Report (shared)	20%
Curriculum Vitae Item	CV Item describing learning (individual)	10%
Total		100%

Log Book (20% individual)

Entrepreneurship happens through a process of decision-action feedback loops. Through this process, entrepreneurs constantly make decisions and take actions. The log book is an accountability tool. Its purpose is to record decision and assign actions each week. In a sense, you are assignment yourself ‘homework’ by writing a ‘to do’ list. The log book is evaluated on two criteria: (1) the recorded decision and assigned actions and (2) the completion of the assigned actions.

Why is accountability critical to success? First, it keeps you on track. Second, it encourages you to reflect on **what can actually be done to make progress**. Constantly making small bets, in the form of non-risky decisions and accomplishable actions, advances ideas toward products and services that create value. Importantly, this process involves **doing the do-able**.

Presentation to the Board (10% shared)

Each implementation team is expected to present their learnings, decision, and strategy to a board of advisors twice in each semester. The board is responsible for the evaluation of the team's ideas and strategy. Board members consist of industry experts, entrepreneurs, and academics.

Participation (20% individual)

The weekly classroom discussion represents a unique opportunity for you to develop and enhance your confidence and skill in articulating a personal position, reacting to new ideas, and receiving and providing critical feedback from a group of assertive and demanding colleagues. Much of your learning will come from these classroom experiences.

You are expected to come to each class having completed your weekly assigned actions, with questions ready for the other teams. Class time is designed to cooperatively resolve challenges and make tough decisions. Come prepared.

It is critical to your and others success that you come to class with a readiness and willingness to contribute to class discussion. This constitutes sharing what your team has done over the past week and contributing your experience by advising other student teams. In this way, we learn together. It is not possible to contribute without having advanced your own project forward, having experienced and shared your difficulties and learnings, and sharing those with others in the class.

A high quality contribution involves presenting clearly, expressing civilly, and supporting opinions with sound logic. Every student shares the responsibility to create an environment where each member of the class feels comfortable offering his or her opinion. Learning from others and contributing to the learning of others through the experience and insights you share is a key part of this learning process.

Relationship Building (20% shared)

Expert entrepreneurs build partnerships because partnerships result in resources. By obtaining pre-commitments from these key partners early on, you can reduce uncertainty and co-create a new market opportunity with interested participants. You are concretely adding to the (low) resource pool of the venture.

Within the scope of this deliverable, it is your team's responsibility to plan an interaction to convert interested stakeholders into partners. Partners will influence the entrepreneur by morphing the original idea and appending their own insight to the original idea. This process creates a new idea that a larger network of stakeholders are committed to. Once again, partners bring with them important resources that fill the team's resource gaps.

The interaction you plan will depend on the stakeholders that you wish to recruit. The event can take the form of an organized social event, a boardroom meeting, a conference, a technology exposition and so on. How you build the relationship will depend on the value proposition of the technology and on the stakeholder. You are encouraged to use The Clinic space at RJC for hosting meetings or events, but you can also use a more appropriate space. Reasonable expenses for this event will be funded by The Clinic. Key to successfully building a relationship is the ex-ante selection of stakeholders and the determination of required commitments from those stakeholders. The organization of each event, as well as the invited stakeholders, must be approved by the idea owner (e.g., researcher).

This grade will be judged on selection of stakeholders and determination of commitments (5%); successful organization of a meeting (5%); and commitments from stakeholders (10%).

Perfect Pitch (20%)

Student teams will prepare a perfect pitch for presentation to stakeholders. The perfect pitch forms the basis of the written business plan (a template of a written business plan is included in the appendix of this document). **The perfect pitch is, however, not a business plan.** The objective of the perfect pitch is to make the communication of the value proposition to interested stakeholders more effective: to increase the likelihood interested stakeholders become partners.

The course will be taught in a workshop format allowing you to work on your ideas. It will also give the entrepreneurial and academic advisors the opportunity to consult with individual teams during the course. Each team is required to design a “perfect pitch” for their idea that must be e-mailed to me (calicg@mcmaster.ca) no later than April 03, 2018 for evaluation.

Curriculum Vitae Item (10%)

One important objective of this course is to help you develop transferable skills. The skills gained at The Clinic should be meaningful and quantifiable in the form of an item on your resume and LinkedIn profile. The CV item should represent the skills you gained throughout the course and be presentable as part of your personal and online (LinkedIn) CV. Good CV items are easily verifiable and quantifiable and linked to strong references. We will work to create a CV item that has maximal effect on improving your personal career profile.

Grade Conversion

At the end of the course your overall percentage grade will be converted to your letter grade in accordance with the following conversion scheme.

LETTER GRADE	PERCENT	POINTS
A+	90 - 100	12
A	85 - 89	11
A-	80 - 84	10
B+	75 - 79	9
B	70 - 74	8
B-	60 - 69	7
F	00 - 59	0

Communication and Feedback

Students that are uncomfortable in directly approaching an instructor regarding a course concern may send a confidential and anonymous email to the respective Area Chair or Associate Dean:

<http://mbastudent.degroote.mcmaster.ca/contact/anonymous/>

Students who wish to correspond with instructors or TAs directly via email must send messages that originate from their official McMaster University email account. This protects the confidentiality and sensitivity of information as well as confirms the identity of the student. Emails regarding course issues should NOT be sent to the Administrative Assistant.

Instructors are encouraged to conduct an informal course review with students by Week #4 to allow time for modifications in curriculum delivery. Instructors should provide evaluation feedback for at least 10% of the final grade to students prior to Week #8 in the term.

ACADEMIC DISHONESTY

It is the student's responsibility to understand what constitutes academic dishonesty. Please refer to the University Senate Academic Integrity Policy at the following URL:

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

This policy describes the responsibilities, procedures, and guidelines for students and faculty should a case of academic dishonesty arise. Academic dishonesty is defined as to knowingly act or fail to act in a way that result or could result in unearned academic credit or advantage. Please

refer to the policy for a list of examples. The policy also provides faculty with procedures to follow in cases of academic dishonesty as well as general guidelines for penalties. For further information related to the policy, please refer to the Office of Academic Integrity at:

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

In this course we will be using Turnitin.com function within Avenue2Learn which are plagiarism detection services. Students will be expected to submit their work electronically to either Turnitin.com so that it can be checked against the internet, published works and Turnitin's database for similar or identical work. If a student refuses to submit his or her work to Turnitin.com, he or she cannot be compelled to do so and should not be penalized. Instructors are advised to accept a hard copy of the assignment and grade it as per normal methods. The assignment can be subjected to a Google search or some other kind of search engine if the instructor wishes.

To see guidelines for the use of Turnitin.com, please go to:

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

MISSED ACADEMIC WORK

Missed Mid-Term Examinations / Tests / Class Participation

Where students miss a regularly scheduled mid-term or class participation for legitimate reasons as determined by the Student Experience – Academic (MBA) office, the weight for that test/participation will be distributed across other evaluative components of the course at the discretion of the instructor. Documentation explaining such an absence must be provided to the Student Experience – Academic (MBA) office within five (5) working days upon returning to school.

To document absences for health related reasons, please provide to Student Experience – Academic (MBA) office the Petition for Relief for MBA Missed Term Work and the McMaster University Student Health Certificate which can be found on the DeGroot website at <http://mbastudent.degroot.mcmaster.ca/forms-and-applications/>. Please do not use the online McMaster Student Absence Form as this is for Undergraduate students only. University policy states that a student may submit a maximum of three (3) medical certificates per year after which the student must meet with the Director of the program.

To document absences for reasons other than health related, please provide Student Experience – Academic (MBA) office the Petition for Relief for MBA Missed Term Work and documentation supporting the reason for the absence.

Students unable to write a mid-term at the posted exam time due to the following reasons: religious; work-related (for part-time students only); representing university at an academic or

varsity athletic event; conflicts between two overlapping scheduled mid-term exams; or other extenuating circumstances, have the option of applying for special exam arrangements. Such requests must be made to the Student Experience – Academic (MBA) office at least ten (10) working days before the scheduled exam along with acceptable documentation. Instructors cannot themselves allow students to unofficially write make-up exams/tests. Adjudication of the request must be handled by Student Experience – Academic (MBA).

If a mid-term exam is missed without a valid reason, students will receive a grade of zero (0) for that component.

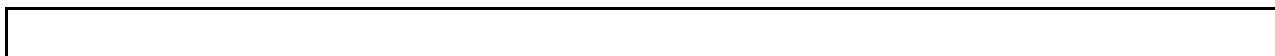
STUDENT ACCESSIBILITY SERVICES

Student Accessibility Services (SAS) offers various support services for students with disabilities. Students are required to inform SAS of accommodation needs for course work at the outset of term. Students must forward a copy of such SAS accommodation to the instructor normally, within the first three (3) weeks of classes by setting up an appointment with the instructor. If a student with a disability chooses NOT to take advantage of an SAS accommodation and chooses to sit for a regular exam, a petition for relief may not be filed after the examination is complete. The SAS website is:

<http://sas.mcmaster.ca>

POTENTIAL MODIFICATIONS TO THE COURSE

The instructor and 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. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes.



COURSE SCHEDULE

The Clinic – Innovation Lab

	DATE	OVERVIEW	TOPIC	NOTES AND CONTENT
Getting Started				
1	Week 1	Commercializing Scientific Research	Residency Begins and Introduction to The Clinic	<ul style="list-style-type: none"> • What makes a scientist and how does science work? • Application of invention
2	Week 2	Idea Sourcing	Bird-in-the-Hand Principle	<ul style="list-style-type: none"> • Patent screening • Project selection • Application team formation: the rule of three.
3	Week 3	Developing the Idea	Affordable Loss Principle	<ul style="list-style-type: none"> • Estimating available resources • Developing actionable strategies
4	Week 4	Involving stakeholders	Patchwork Quilt Principle	<ul style="list-style-type: none"> • Define important stakeholder • Define required commitment • Get commitment from stakeholder • Prepare for presentation to the board
5	Week 5	Presentation to the Board	PRESENTATION TO THE BOARD	<p>In class: presentation to board</p> <p>Out of class work: implement changes</p>
6	Week 6	Leverage surprises	Lemonade Principle	<ul style="list-style-type: none"> • Invite surprises and learnings • Create contingencies to deal with “what-if” and “worst-case” scenarios • Interpret bad news as information to create new markets • Prepare and Send invitations for Form Partnerships on weeks of March 4th and 11th.
	Week 7	Mid-term Recess		

7	Week 8	Enlisting others	Engaging in partnerships.	<ul style="list-style-type: none"> • How to get the most out of partnerships. • Recruiting others for your ideas.
8	Week 9	Form Partnerships (1)	Creating Interactions that lead to Commitments	<ul style="list-style-type: none"> • Execute interaction and transform interested stakeholders into partners. • Every student attends.
9	Week 10	Form Partnerships (2)	Creating Interactions that lead to Commitments	<ul style="list-style-type: none"> • Execute interaction and transform interested stakeholders into partners. • Every student attends.
10	Week 11	Leveraging Surprises	Lemonade Principle	<ul style="list-style-type: none"> • Leverage surprises from last week's event. • How will follow up be executed? • How could the event be improved?
11	Week 12	New means and new goals	Goal construction and achievement.	<ul style="list-style-type: none"> • Given new commitments and learnings, have the goals and means of the organization changed? • Define new goals and means.
12	Week 13	Presentation to the Board	PRESENTATION TO THE BOARD	<p>In class: presentation to board</p> <p>Out of class work: implement changes</p>
13	Week 14	Debrief	Planning for the future.	<ul style="list-style-type: none"> • Submission of perfect pitch. • Submission of CV-item. • What are the next steps for each associate?

APPENDIX

Written Plan

A form business plan stands primarily on its **content**. You should also consider the report's **organization** (sequence of ideas), **balance** (evidence of comparable degree of analysis in sections of comparable importance), and **style** (English usage, grammar and punctuation).

The business plan should be limited to 10 pages using standard margins and 12-point font. Additionally, up to (but not exceeding) 5 pages of appendices may be attached, for a maximum of 15 pages. The format below is intended to be used as a template to build a 10-page business plan. Each of the following points should be addressed within the body of the business plan; **suggested** limits are provided in parentheses. The appendices will be used for supporting documentation (pro forma financials, etc.).

1. Business Concept/Executive Summary (1 page max)
 - 25 word mission statement
 - Key values entrepreneur brings to the business
 - Key goals and objectives, including personal financial and non-financial goals
 - Investment needs
2. The Value Proposition (1-2 pages max)
 - Based on industry research, why is this an opportunity?
 - What are the macro trends that support this opportunity?
 - What are the more focused localized trends that tie into industry trends above?
 - What "pain" in the market does the business address?
 - Cite evidence to support
3. Target Market/Competitive Analysis (1 page max)
 - Who are they? (Define your market and target "niche")
 - Who are your customers, and why?
 - What are the key attributes that drive your customer's decision to purchase?
 - Who are your main competitors and how well do they address customer preferences above?
4. The communication and distribution channels (1/2 - 1 page max)
 - Where do your customers get their information to make a purchase decision?
 - What form do they prefer this information in?
 - How do they want you to get the product or service to them?
5. The relationships established with customers/clients (1/2 page max)
 - How important is customer service in the business?
 - Do we need to deal with each customer on a personal basis?
 - Do they just want us to get them the product and leave them alone?

6. The cost structure: begin with known costs and determine the market share you will need to reach profitability and positive cash flow (1 page max)
 - How much will it cost to build your product or provide your service?
 - What is the “per unit” cost – and how do you know?
 - What is the overhead cost to operate?

7. The revenue streams (1 page max within the 10-page business plan itself; pro-forma income and cash flow statements, forecasting at least 2 years, should be included in the appendix)
 - What generates revenues for the business?
 - What will pricing strategies be?
 - What is our pricing structure?

8. The key resources, funding and activities needed to make the business model possible (1-2 pages max)
 - Resources:
 - People - estimated cost for each
 - Equipment - estimated cost for each
 - Inventory - how much to start and how much on hand (if applicable)
 - Physical space
 - Operating cash on hand
 - Suppliers
 - Funding
 - Sources (what types of funding will you need)
 - How much?
 - What is your timing?
 - Launch Activities
 - What are the "must do's" to get this ready to launch?
 - What are the "must do's" to get the first customer?
 - What are the "must do's" to keep customers coming in the door and to keep them from leaving us?
 - What are the "must do's" to support growth?

9. Key Stakeholders (1/2 page max)
 - Who are your most critical stakeholders?
 - What will get them to work with you?

10. Final considerations (1 page max)
 - HOW MUCH WILL IT COST TO **LAUNCH** THIS BUSINESS?
 - Does the economic logic of the concept hold together?
 - When will you break-even based on these initial estimates? (This includes the entrepreneurs’ paycheck)
 - What would you do with the competition winnings, if you receive them?