

## INSPIRE 3EL3 – CO1 – HEALTH VENTURES

FALL 2020

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Office Hours: Appointments are available upon request.

**Do you have a great idea for health innovation? A new solution that changes how something is done? A current or future thesis/capstone project that addresses a big problem? An interest in exploring what it means to build innovation?** The Health Venture course will help you develop essential entrepreneurial skills to Define Problems, Design Solutions and Activate Opportunities. Whether you are working on a new digital application, device, therapeutic, process, program, or are simply intrigued by how new innovative technologies are created, all are welcome. We will work through case studies and independent projects to apply concepts learned from video modules, online discussions, PBL cases and short assignments. Self-assessment quizzes will help you track your progress.

**Enrollment Note:** No prior knowledge of business is required to take this course. Please ensure that you've enrolled on Mosaic under the course code "INSPIRE 3EL3-CO1". For any enrollment issues, please email [intersession@mcmaster.ca](mailto:intersession@mcmaster.ca)

**Required Texts:** Instructor will provide all required texts and materials in the course.

### COURSE SCHEDULE

This course is fully ONLINE for Fall 2020. Most content is available in an asynchronous (i.e. on-demand) fashion. Individuals are responsible for ensuring that all pertinent course deadlines are met and all group work for Problem-Based Learning tutorials is completed.

#### Module 1 – Finding the Right Problem to Solve (Weeks 1-3)

**Innovation is the creation of new value to solve a meaningful problem.** This module will provide an overview of need-pull and tech-push approaches to innovation, methods for finding and prioritizing impactful problems to solve, how to use root cause analysis in problem definition, questions (quantitative and qualitative) that must be answered by a problem statement, stakeholder analyses, and the impact of different value proposition statements. By the end of this module you will clearly communicate and justify the key problem(s) being solved (and therefore value being created) in innovation projects.

**Week 1. Innovation 101: Approaches, Drivers and Success Factors.** Learn about needs pull and tech push approaches to innovation, models used across leading institutions, and what it takes to be an impactful entrepreneur in healthcare.

**Week 2. Strategic Foresight: Anticipating Future Contexts of Your Innovation.** Will your proposed solution continue to offer value in the next 10-25 years?

**Week 3. Finding the Why: Human-Centered Design and Value Generation.** How do you ensure your idea has real value? Learn how to use different perspectives to clearly communicate the purpose behind your solution.

## Module 2 – Understanding the Market Opportunity (Weeks 4-5)

**Innovation does not exist in a vacuum. Typically, the problem you are solving already has solutions. Your key objective as an innovator is to significantly improve on what is already done by creating new value.** This course will provide an overview of secondary and primary research methods to identify solutions already available, the creation of an effective competitive analysis and target innovation profile, and how this feeds back into problem positioning. By the end of this module you will develop skills in competitive market intelligence and use this information to structure solutions to your proposed problem.

**Week 4. White Space: Market Analysis, Customer Insights & Triangulation.** How do you know whether there is an opportunity to make a difference? Learn how to find and use market research as well as design primary research approaches to validate the problem you are looking to solve.

**Week 5. End Point Selection: Ventures, Licensing Deals, and Everything Else.** What happens after your solution is developed and validated? Learn about venture creation and exit strategy opportunities that you must consider before you invest resources into your project.

## Module 3 – Developing a Valuable Solution (Week 6-7)

**Your first attempt at designing a solution is never the final one – so why should it cost a lot of money to create?** This module will provide you with an overview of the target innovation profile (incl. an overview of common regulatory considerations) and how it is used to create minimum viable product, low- through high-fidelity prototyping tools (not just for devices and apps!), designing solution validation studies and key milestones throughout the development process. By the end of the module you will understand the underlying thinking behind an innovation roadmap and how cost reduction in early development can maximize probability of success.

**Week 6. Innovation Project Management & Validation Approaches.** How do you ensure your innovation’s development pathway is well-resourced and managed?

**Week 7. Business Model Development: Planning for Sustainability.** How might you continue R&D and impact generation over time?

## Module 4 – Building a Team & Communicating Value (Week 8-9)

**Have you heard that “teamwork makes the dream work, but a vision becomes a nightmare when the leader has a big dream and a bad team” (John Maxwell)?** This module will demonstrate how team composition (skills, knowledge) changes throughout the innovation journey and how mentors and advisors can supplement additional insight necessary to your success. It will conclude with an overview of project management fundamentals as they apply to rapidly changing innovation projects and how to deliver effective pitches to different audiences (investors, healthcare professionals, industry partners, customers). By the end of the module you will know who you need on your team, how to find them and how to craft an effective pitch.

**Week 8. Effective Communications, Stakeholder Priorities and Risk Management.** How will you speak about the potential and realized impact of your solution?

**Week 9. Team Creation: Skills Analysis and Finding the Right Mentors.** Who should be on your team? When should they join? In what capacity?

**Module 5 – Bringing New Solutions to Market (Week 10-11)**

To create value, an innovation must be designed and then deployed to solve a meaningful problem. Depending on levels of risk and stakeholder involved, different regulatory and market entry considerations will be at play. This module will provide an overview of risk types and their mitigation strategies, stakeholder analysis, and different go-to-market approaches, including innovation procurement processes in healthcare settings, venture creation, licensing deals, and direct-to-customer marketing. A short introduction to raising capital will also be provided. By the end of the module you will understand how to create an innovation-specific market entry plan.

**Week 10. Change Management & Go-to-Market Strategies.** How do we encourage adoption of new technologies within a complex setting or a crowded marketplace?

**Week 11. Business Valuation Methods and Capital Management.** What is the financial value of what you have created? How does this increase over time?

**Module 6 – Revisiting the Innovation Journey (Week 12-13)**

**Innovation development is rarely a linear journey.** This module is a high-level summary of learnings from previous courses in the series (Finding the Right Problem, Understanding the Market Opportunity, Developing a Valuable Solution, Building the Team & Communicating Value and Bringing New Solutions to Market). You will engage in several case studies through problem-based learning. You will review entrepreneurship case studies, deepening your understanding of concepts through problem-based learning discussions and engage with mentors in the community.

**WEEKLY COURSE SCHEDULE**

**Bold-face** items are for marks and have an associated deadline of 11:59 PM.

Monday	Tuesday	Thursday	Friday
Module Videos <b>PBL Case Study 1*</b>	<b>Case Study 1A</b> Self-Assessment	<b>Case Study 1B/C</b> <b>PBL Case Part 2*</b>	<b>Case Study 1B/C</b> <b>Quiz*</b>

**COURSE COMPONENTS AND ASSESSMENTS**

Each module will have the following assessment breakdown

**Course Videos** Videos related to various course topics have been created to demonstrate entrepreneurship concepts to you. A **self-assessment** must be completed however it is not for marks. These will help you verify understanding of key concepts. You have up to three attempts on each.

**Case Study (30%)** You will be assigned online discussion groups of up to six learners. Based on a (short) case study, you will answer a set of questions (**Case Study 1A**), ask

questions/comment on the responses of your peers (**Case Study 1B**) and then respond to their questions/comment(s) (**Case Study 1C**). Marks are provided based on the quality of information, logic, and insights offered in your initial responses (**10%**), questions/comments to your peers (**10%**) and responses to their comments (**10%**).

**Quiz (10%)**

A quiz will be provided at the end of each module. Each quiz will consist of randomized sets of 15 questions and will assess your understanding of key concepts. You will have only one attempt. The quiz will be available from 12:00 AM through 11:59 PM on the day it must be completed.

**PBL Case (30%)**

Problem-based learning (PBL) cases are prompts intended to stimulate learning. **These will occur bi-weekly.** You will take a short *Six Thinking Hats* assessment during Week 1 and based on results you will be randomized into PBL discussion groups (up to five individuals). As with any effective entrepreneurial team, PBL case discussions rely on productive individual- and group-level efforts.

In **PBL Case Part 1** you will receive an entrepreneurship case and work with your team to establish learning objectives and an approach to achieving them. You must make arrangements to discuss objectives and the final case at a time that is agreeable to all members. In **PBL Case Part 2** you will apply your learnings to-date and work as a group to develop case-specific recommendations.

Evaluations will be based on your consistent contribution to group processes (a combination of self, peer and tutor assessments), group contributions and the understanding of concepts you demonstrate.

**Reflection (30%)**

Provide a 500-word (minimum) reflection on your personal course experience and growth at the end of each module. Share what you learned and accomplished in the module, where these learnings may be relevant to you in the future, what you did well (or could have done differently) and what you learned about yourself as a learner. Which components worked well (or not well) and why?

**COURSE COMMUNICATION**

**1. Email & Office Hours:** I encourage you to email me ([sarah@mcmaster.ca](mailto:sarah@mcmaster.ca)) with any questions you have as soon as possible. Appointments (Zoom or phone calls) are available upon request. If you do not hear back within one business day feel free to re-send your email with a friendly reminder.

**2. Avenue to Learn:** Announcements, lecture content, and grades will be posted to Avenue to Learn. Due to the nature of the course, a combination of email and Avenue to Learn communications will be used. You will be prompted to check the course page regularly to ensure you don't miss out on important information or announcements.

**COURSE POLICY STATEMENTS**

**1. Academic Accommodation of Students with Disabilities:**

Students who require academic accommodation must contact Student Accessibility Services (SAS) to make arrangements with a Program Coordinator. SAS can be contacted by phone 905-525-9140 ext. 28652 or email [sas@mcmaster.ca](mailto:sas@mcmaster.ca). For further information, consult McMaster University's Academic Accommodation of Students with Disabilities policy (<https://secretariat.mcmaster.ca/app/uploads/2019/02/Academic-Accommodation-for-Religious-Indigenous-and-Spiritual-Observances-Policy-on.pdf>).

I also encourage you to talk to me if you require any accommodation, I am happy to talk in-person or via email.

## **2. Academic Accommodation for Religious, Indigenous, or Spiritual Observances (RISO):**

It is important that any students requiring academic accommodation based on religion, indigenous, and spiritual observances know that these requests will be respected in the classroom. Students requiring academic accommodation based on religious, indigenous, or spiritual observances should follow the procedures set out in the RISO policy (<https://secretariat.mcmaster.ca/app/uploads/2019/02/Academic-Accommodation-for-Religious-Indigenous-and-Spiritual-Observances-Policy-on.pdf>). Students requiring a RISO accommodation should submit their request to their Faculty Office normally within 10 working days of the beginning of term in which they anticipate a need for accommodation or to the Registrar's Office prior to their examinations. Students should also contact their instructors as soon as possible to make alternative arrangements for classes, assignments, and/or tests.

## **3. Assignment Deadlines and Missed/Late Work**

Assignment Deadlines & Missed/Late Work: Students are expected to hand in all assignments on the specified due dates. Late submissions will be subject to a penalty of 20% per day (including weekend days). No assignments will be accepted after the last day of classes. Given that some course assignments require electronic submission, you should familiarize yourself with the Avenue to Learn Assignment in advance of the deadlines, and ask for assistance as necessary. Problems with electronic submission WILL NOT be accepted as an excuse for lateness.

## **4. MSAF Statement McMaster Student Absence Form (MSAF):**

McMaster Student Absence Form (MSAF) If you are absent from the university for a minor medical reason, lasting fewer than 5 days, you may report your absence, once per term, without documentation, using the McMaster Student Absence Form. Absences for a longer duration or for other reasons must be reported to your Faculty/Program office, with documentation, and relief from term work may not necessarily be granted.

When using the MSAF, report your absence to [intersession@mcmaster.ca](mailto:intersession@mcmaster.ca) You must then contact your instructor immediately (normally within 2 working days) by email at [sarah@mcmaster.ca](mailto:sarah@mcmaster.ca) to learn what relief may be granted for the work you have missed, and relevant details such as revised deadlines, or time and location of a make-up evaluation. Please note that the MSAF may not be used for term work worth 30% or more, nor can it be used for the final examination. Please note: students who use the MSAF, but who do not contact the instructor within the 2 working days' period, may not be granted any relief.

## **5. McMaster Policy on Academic Integrity**

You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity. **It is your**



## **responsibility to understand what constitutes academic dishonesty.**

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. For information on the various types of academic dishonesty please refer to the [Academic Integrity Policy](https://secretariat.mcmaster.ca/university-policies-procedures-guidelines/), located at <https://secretariat.mcmaster.ca/university-policies-procedures-guidelines/>

The following illustrates only three forms of academic dishonesty:

- plagiarism, e.g. the submission of work that is not one’s own or for which other credit has been obtained.
- improper collaboration in group work.
- copying or using unauthorized aids in tests and examinations.

## **6. Authenticity / Plagiarism Detection**

Some courses may use a web-based service (Turnitin.com) to reveal authenticity and ownership of student submitted work. For courses using such software, students will be expected to submit their work electronically either directly to Turnitin.com or via an online learning platform (e.g. A2L, etc.) using plagiarism detection (a service supported by Turnitin.com) so it can be checked for academic dishonesty.

Students who do not wish their work to be submitted through the plagiarism detection software must inform the Instructor before the assignment is due. No penalty will be assigned to a student who does not submit work to the plagiarism detection software. All submitted work is subject to normal verification that standards of academic integrity have been upheld (e.g., on-line search, other software, etc.). For more details about McMaster’s use of Turnitin.com please go to [www.mcmaster.ca/academicintegrity](http://www.mcmaster.ca/academicintegrity).

## **7. Conduct Expectations**

As a McMaster student, you have the right to experience, and the responsibility to demonstrate, respectful and dignified interactions within all of our living, learning and working communities. These expectations are described in the Code of Student Rights & Responsibilities (the “Code”). All students share the responsibility of maintaining a positive environment for the academic and personal growth of all McMaster community members, whether in person or online.

It is essential that students be mindful of their interactions online, as the Code remains in effect in virtual learning environments. The Code applies to any interactions that adversely affect, disrupt, or interfere with reasonable participation in University activities. Student disruptions or behaviours that interfere with university functions on online platforms (e.g. use of Avenue 2 Learn, WebEx or Zoom for delivery), will be taken very seriously and will be investigated. Outcomes may include restriction or removal of the involved students’ access to these platforms.

## **8. Courses with an On-Line Element**

Some courses may use on-line elements (e.g. e-mail, Avenue to Learn (A2L), LearnLink, web pages, capa, Moodle, ThinkingCap, etc.). Students should be aware that, when they access the electronic components of a course using these elements, 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 a course that uses on-line elements will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure please discuss this with the course instructor.

## **9. Online Proctoring**

Some courses may use online proctoring software for tests and exams. This software may require students to turn on their video camera, present identification, monitor and record their computer activities, and/or lock/restrict their browser or other applications/software during tests or exams. This software may be required to be installed before the test/exam begins.

## **10. Copyright and recording**

Students are advised that lectures, demonstrations, performances, and any other course material provided by an instructor include copyright protected works. The Copyright Act and copyright law protect every original literary, dramatic, musical and artistic work, including lectures by University instructors.

The recording of lectures, tutorials, or other methods of instruction may occur during a course. Recording may be done by either the instructor for the purpose of authorized distribution, or by a student for the purpose of personal study. Students should be aware that their voice and/or image may be recorded by others during the class. Please speak with the instructor if this is a concern for you.

## **11. Acknowledgement of Course Policies**

Your registration and continuous participation (e.g. on A2L, in the classroom, etc.) to the various learning activities of INSPIRE 3EL3 – CO1 will be considered to be an implicit acknowledgement of the course policies outlined above, or of any other that may be announced during lecture and/or on A2L. It is your responsibility to read this course outline, to familiarize yourself with the course policies and to act accordingly. Lack of awareness of the course policies cannot be invoked at any point during this course for failure to meet them. It is your responsibility to ask for clarification on any policies that you do not understand. The instructor reserves the right to modify elements of the course and will notify students accordingly (in class and post any changes to the course A2L).

## **12. Extreme Circumstances**

The lecture schedule is only a guideline and may be modified during the course of the class. 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.