

Course Syllabus

MFG291 – Special Topics: Startup Seminar Spring 2021



Class Schedule

Days	Times	Room Location
Tuesday, Thursday	3:10 AM – 5:10 PM	Hybrid delivery Week 01 - Livestream (Zoom link in Moodle) Week 02 – West Hall 103/104

Instructor Information

Instructor: Keith E. Kelly
Office: ~~Parsons-Stulen PS156/Makerspace~~ virtual – use Zoom link
Phone: 231-995-1312
E-mail: kkelly@nmc.edu

Office Hours:

Monday – Thursday 9:15 – 10:15 AM. By appointment – user Zoom link

Course Description

This class provides students the opportunity to learn and experience “startup”. The course requires students to form teams around a new product or service concept and apply innovation tools such as design thinking and agile management to create new value. The resulting value proposition is pitched at a Northern Michigan’s Startup Week event. Course content includes startup concepts and processes, interviews with prior NMC student entrepreneurs, and interactions with the Traverse City startup ecosystem. (3 Credit Hours /4 Contact Hours)

Prerequisite Courses / Placement:

None, but students should have prior learning or experience in business, technology, or engineering. A prototype produce will be created in response to the student’s identified problem or opportunity.

Teaching Methods

This course is delivered as a seminar, but what does that mean. The work seminar is derived from the Latin word seminarium, meaning “seed plot”. This term fits are Startup efforts nicely since you’ll create a solution to a problem or opportunity and make it grow. Seminar classes are meant to be interactive, with students participating in not only the course outcomes but the course process as well. You will do more than just listen to me to learn the “how-to”. There will be guided lessons but ultimately it will be up to you to create the value contained in this NMC experience.

The class is organized into five 3-week long sprints. During the first two sprint you will work as an individual to define and prioritize potential problems and solutions. At the start of Sprint 3, you will present your selected problem/opportunity and describe your vision for the related Startup product. You have the option at this time to continue to work independently or partner with another student as a cofounder. During sprints 3 and 4 you will create a prototype know as a Minimal Viable Product or MVP. Finally, during Sprint 5 you will create a pitch for your Startup. Four or five of the class startups will be selected to compete in the Northern Michigan Startup Week student pitch competition on Friday, May 13. First and second prizes will be awarded of \$1,000 and \$500.

This is a hybrid courses. We'll start off livestreaming using Zoom for week 1. See the top of the Moodle page for the Zoom link. During week 2, we will meet but plan on walking tours. More on this later. As we progress into Sprint 3 with co-founder and teams created, we'll use the classroom regularly to facilitate your Startup's work.

There will typically be work to submit for each week of the course. Weekly assignment links are shown in each of the sprint sections in Moodle. Work is due by 11:55 on Monday's. The link will be disabled after the deadline and late work is not accepted. There will typically be more substantial project work that is submitted during the last week of each sprint. See the Moodle gradebook for details. Your performance will be evaluated by what you create, but more importantly how you work.

Required Course Material:

- Textbook: A textbook is not required for this course. There are many suggested readings. See the Resources section in Moodle
- Podcast: How to Start a Startup, Sam Altman
- Computer
- Internet connection
- Microphone
- Web Cam

Course Objectives / Learning Outcomes:

<i>Area</i>	<i>Learning Outcome</i>	<i>Assessment Tool</i>
Knowledge	<ul style="list-style-type: none"> • Identify aspects of highly functional teams. • Identify and recognize the value of tools supporting innovation and startup. • Identify components of "the pitch". • Identify local community organizations and venture capitalists supporting startup and innovation. 	Logbook Sprint Reports
Application	<ul style="list-style-type: none"> • Participate as an effective team member. • Empathize with a user/customer to identify value. • Apply prior business, technology, or engineering abilities to create value. • Pitch a value proposition. . 	Logbook Sprint Reports

Integration	<ul style="list-style-type: none"> Define, design, test, and iterate to perfect a solution. 	Logbook Sprint Reports Product Presentation
Human Dimension	<ul style="list-style-type: none"> Experience challenges and rewards as a “creative” and entrepreneur. Demonstrate an understanding of and a commitment to professional and ethical responsibilities. 	Logbook Sprint Reports Retrospections
Caring – Civic Learning	<ul style="list-style-type: none"> Demonstrate a commitment to quality, timeliness, and the team. Interact with local community experts. 	Logbook Sprint Reports Retrospections
Learning How to Learn	<ul style="list-style-type: none"> Experience learning as a creative where the steps are not scripted, and the progress requires constant design, testing, and iteration. 	Product/Process Development Pitch Creation and Delivery

General Education Outcomes:

None

Grade Determination:

Final grades will be determined as follows: Total of all deliverables including logbook, quizzes, reports, and documentation worksheets, homework, lab scores, and tests divided by the total possible points x 100%

Grading Scale:

4.0 = 93% or above
3.5 = 85 – 92%
3.0 = 80 – 84%
2.5 = 75 – 79%
2.0 = 70 – 74%
1.5 = 65 – 69%
1.0 = 60 – 64%
0.0 = below 60%

Proposed Assignments / Grading Criteria:

Assignment	Points
Sprint 1 – Startup – Problem/Opportunity	120
Sprint 2 – Product concept and planning	120
Sprint 3 – Team creation and planning	120
Sprint 4 – Execution, MVP creation	120
Sprint 5 – Pitch development and delivery	170
Production/Participation/Logging	100
TOTAL	750

Course Policies/Procedures

Attendance/Participation

You are expected to attend each class. During virtual sessions your camera must be on with mics normally muted.

Students are expected to actively participate in class by asking questions, working on in-class exercises, giving presentations as individuals or as part of their team projects, and sharing personal experiences and opinions related to the topics discussed. Students who do not participate in class or miss more than 4 in-class hours without a pre-approved excuse will have their final grades reduced by one grade (i.e., 4.0 to 3.5). Be sure to contact me BEFORE you miss a class, if possible. Extended or initial absence can result in the instructor dropping you from the course. Excessive tardiness can result in a reduction of one grade (i.e., 4.0 to 3.5).

Let me know about last minute emergencies via email or phone as soon as you can.

Late Work

Late work is not accepted. See the course web site for descriptions of homework assignments. If you have a special circumstance, let me know in advance.

Makeup Tests and Presentation Date Changes

Requests for makeup tests or presentation date changes must be made in advance with the instructor or the student will get no credit for that item.

Cell Phones / Smart Phones

Phones must be placed in the "Quiet / Vibrate" mode. No texting or phone calls during class. All emergency calls should be taken in the hallway without disturbing other students.

Honesty

I'm very aware of how easy it is to share your work when it is in electronic form. Be sure you are aware of the Student Code of Conduct found in the Student Handbook available on the NMC website. If you cheat, you fail.

How to Get the Most Out of This Learning Experience

Below are a few simple steps that will make this learning experience even better:

- Take charge of your own learning. Raise questions, prove, explore, go after what you need
- Be open. Use your imagination, consider new possibilities, and create something new
- Give as well as receive. Give liberally to co-learners and be prepared to receive a great deal from them
- Have fun!!! Plan to thoroughly enjoy this opportunity to learn and to grow in your professional competence and satisfaction
- Take advantage of all the great equipment we have in the NMC Makerspace and your chance to experiment.

Tentative Course Itinerary (subject to change):

The specific day-to-day activities, assignments and topics are located on the course Moodle page.

<i>Week</i>	<i>Date</i>	<i>Phase</i>	<i>Activity</i>
01	1/18	Sprint 1	Introduction to Startup, Problem/Opportunity Identification
04	2/8	Sprint 2	Solution/Product Definition
07	3/1	Sprint 3	Presentation, Cosponsor Selection, Planning
10	3/22	Sprint 4	Execution
13	4/19	Sprint 5	Pitch Creation and Delivery
16	5/9		Northern Michigan Startup Week

Syllabus Changes

The instructor reserves the right to modify the syllabus and will inform the class of any changes.