IDE 315

School: SES

Owning Academic Unit: SES/ECE

Coordinating Academic Unit (if applicable)**: SES/ECE**

Course Title: **Entrepreneurship Experience Part II**

Program(s):

Proposed Course # or Level: **315**

Catalog Description: (This paragraph should succinctly summarize the course objectives and outcomes as described in this proposal, and list pre- or co-requisite courses in the relevant section below. Keep the length to no more than 100 to 150 words. Do not restate the list of topics.)

This course teaches students the science behind generating great *ideas*, turning ideas into compelling *products*, and using these products to capture *markets*. From technology to sales, patents to legal incorporation, this course delivers everything early engineers and founders need to build something of *massive* importance. In just the past four years of running this course as a weekend-only experimental retreats, the participants have managed to create enterprises worth well over $35 million; with two ventures getting bought out and four more raising significant venture funding.

[Part-II] of this course focuses on capturing *markets* and establishing an *enterprise* using a minimum viable product (MVP) developed in Part-I of this course. This course will teachs the art of iterating through value propositions until a product-market fit is established. Further, using such a fit, a repeatable and scalable business model is developed. These outcomes will enable the student to create a commercial or non-profit entity that is poised for hyper-growth.

Course Objectives: (This section should provide a description of what students will get out of the course beyond the course itself – i.e., how it will prepare them for their profession, or how the course fits in with the overall curriculum of the program(s) that the course belongs to.)

Professional Preparation: This course develops essential technological and business skills for building products of significant value and the creation of high growth companies. By engaging in such acts, the student is able to *emphatically* advance in their pursuit of a rewarding STEM career; either as (i) founders/entrepreneurs of a full-fledged enterprise, (ii) graduate students in top-notch institutions, or (iii) as employees at major corporations such as Google, Facebook, Apple etc.,

Broader Impact: The broader impact of this course is to create a deeply embedded entrepreneurial thinking experience in the middle years of our educational program at Stevens. By uniquely merging strong technological skills with a business grounding, this course is unlike any, and complementary to, any other entrepreneurial thinking courses here at Stevens. It is a collective mission to empower talented engineers to build meaningful and compelling solutions to the world's problem.

List of Course Outcomes: *A course outcome is an ability or skill that each student is expected to develop by taking the course.* Each course must have a list of outcomes developed by the instructor. The course outcome should be worded actively.[1]

- Student is able to describe and seize markets: total addressable market (TAM), serviceable addressable market (SAM) and beachhead segment.
- Student is able to define and articulate the "chasm" point of product evolution from beachhead to SAM
- Student is able to produce value proposition models for A/B testing
- Student is able to define and deliver a business deck: (i) purpose, (ii) problem, (iii) solution, (iv) product, (v) market-segmentation, (vi) competition/USP, (vii) team, (viii) revenue, (ix) 18-month plan, and (x) why now?
- Student is able to understand the mechanics of establishing a C-Type Incorporation or a non-profit.
- Student is able to establish a board-of -directors and a stock-vesting schedule, and understands the mechanics of working in a team.
- Student is able to pitch their venture

Prerequisites:[2] Attendance to, and successful completion of, the Entrepreneurship Experience Part-I

Co-Requisites: Enrollment in this course is strictly by instructor consent. Students must submit a "pitch-deck" to be considered for this course.

Cross-listing:

Number of credits: 3.00

For Undergraduate Credit toward Degree:
[x] Yes ☐ No ☐ Not for Dept. Majors ☐ Other

Is this course repeatable for additional credit? ☐ Yes ☐ No

Mode(s) of Delivery: [x] In-person ☐Online ☐Hybrid ☐Other _____

For instructional format, you may select more than one. If a course includes multiple formats (for example: lecture and lab; lecture, lab and recitation, etc.), please indicate which controls grading.

Lecture/Lab Combo is when both the lecture and lab are scheduled in the same block. For Lecture/Lab Combo, you do not need to indicate which controls grading.

Instructional Format: [x] Lecture ☐Lab ☐Recitation ☐Lecture/Lab Combo

If multiple instructional formats are selected, please indicate which controls grading:

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[1] Good examples can be taken from descriptions of Bloom's taxonomy. For example, see the table located at: http://www.nwlink.com/~donclark/hrd/bloom.html.

[2] You may provide a list of courses, competencies or other criteria (e.g., "Students must have taken CS 2XX" or "Students must have taken a course in thermodynamics," or "Students must be part of a certain cohort.")

Typical Period(s) Offered: **[x] Fall** ☐Spring ☐Summer A ☐Summer B

Effective date:

Contact Person(s) (In the case of joint ownership, please list a contact for each department/school.)
Name: Mukundan Iyengar
Title: Teaching Assistant Professor
Phone number: 201.216.5603
Email address: miyengar@stevens.edu

Date approved by individual school and/or department curriculum committee: _____
If your school does not have a curriculum committee, please indicate date of approval by relevant stakeholders and identify them.

Textbook(s) or References (List required and recommended texts including publisher and year in a recognized format such as APA, AIP, Chicago or MLA):

1. "*Crossing the Chasm: Marketing and Selling High-Tech Products to Mainstream Customers*", -- Geoffrey Moore
2. "*Value Proposition Design: How to Create Products and Services Customers Want"* -- Alexander Osterwalder (**required**)
3. "*Business Model Generation: A Handbook for Visionaries, Game Changers and Challengers"* -- Alexander Osterwalder (**required**)
4. "*The Startup Owner's Manual"* -- Steve Blank (**required**)
5. "*The Art of Startup Fundraising"* -- Alejandro Cremades

Grading Percentages: **HW [x]** Class work ☐ Mid-term ☐ Final ☐ **Projects [x]**

Other ☐ (specify both percent and kind of work)

Sample Syllabus: This syllabus should be sufficiently detailed to allow the Curriculum Committee to understand and discuss the scope of the course, its aims and assignments. The homework and reading sections should provide sufficient detail for the Committee to judge the amount and kind of work required of students. The Committee understands that this syllabus is a sample of how a course might be organized, not a commitment to always offer the course exactly as described every time. Note that a syllabus is not merely a listing of topics or a restatement of the catalog description.

	Topic(s)	**Reading(s)**	**Class exercises (Optional)**	**HW**
Week 1	Market Sizing and Segmentation: SAM, TAM and beach-head (part-1)	Book (1) and online resources		

Week 2	Market Sizing and Segmentation: SAM, TAM and beach-head (part-1)	Book (1) and online resources		Market-Analysis for MVP
Week 3	Value Proposition: Defining and Measuring	Book (2)		
Week 4	Lean Canvas Models	Book (3) and Book (2)		
Week 5	Customer Acquisition Blueprint	Book (4)		
Week 6	Business Models (Part-I)	Book (3)		
Week 7	Business Models (Part-II)	Book (3)		Business Plan
Week 8	Branding and Storytelling	Online Resources		Online website
Week 9	Incorporations and Non-Profits	Online Resources		
Wee 10	Fundraising Basics	Book (5)		
Week 11	Creating a Pitch-Deck	Online Resources and Book (3)		Pitch Deck
Week 12	Business Pitching (I)	Online Resources		Pitch Deck
Week 13	Business Pitching (II)	Online Resources		Pitch Deck
Week 14	Final Presentations			