

Course Syllabus- Summer 2023

EE P 598: Entrepreneurship for Electrical and Computer Engineers: From Idea to Startup

Summary:

This course is geared towards students interested in launching their own tech startup or seeking to apply entrepreneurship principles in their engineering careers. The curriculum offers insights into conducting market research, identifying target markets, creating a business model canvas, building and testing a minimum viable product (MVP), and understanding startup equity allocation, among others. Through detailed case studies and practical assignments, students will get a chance to apply these concepts and prepare their own startup pitch.

- **Instructor: Sep Makhous**, sosper30@uw.edu
- **Office hours:** Sign up using the Calendly Link

Main Communication Platform: Slack Link (mandatory for all students): [CLICK HERE](#)

Class Meetings Information:

- **Lecture:**
 - T Th 4:00p-5:50p, ECE 269

Grading policy:

- Homework: 40%
- ICTE: 20%
- Final Project: 40%

Class format:

The class will be held in person. It is important that you attend the class meetings to increase your learning experience, especially during lab times (more info below). We will provide, prefilled slides, recorded lectures, and filled-out notes for you to review asynchronously. We will also provide a zoom option for those who can not make it in person; however, this is not a hybrid course, hence, the engagement through zoom will be limited. If you are joining the class remotely, you will need to make sure to collaborate with your team during labs to receive full credit.

FAQ

Q: *What should I do if I can't come in person to a class meeting.?*

A: Connect to the class Zoom -- you will be able to listen to the lecture. Coordinate with your team and join them remotely during labs (only if you have to).

Q: *Are office hours remote or in person?*

A: We will offer both zoom and in person office hours

Q: *How do I sign up for office hours?*

A.1: Sep's office hours: By appointment only; use the Calendly Link to sign up

Overview

Learning Outcomes [LO]

- Conduct market research, identify a target market, and create a business model canvas.
 - Build and test a minimum viable product (MVP)
 - Develop a fundraising strategy and identify potential funding sources
 - Discuss fundraising best practices, financing paths, and types of shares
 - Understand startup equity allocation and go through a term sheet in detail
 - Understand the concepts of lifetime value and acquisition cost
 - Analyze Harvard Business School case studies of tech companies
 - Pitch their startup idea to potential investors
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Course materials

Harvard Business School Course Packet: (Link TBT)

We will provide lecture notes, homework assignments, and other materials using Canvas Home Page,

Here is a summary of all the course material:

- **Prefilled slides:** will be posted 12 hours prior to the lecture
- **HW:** will be posted around 2 weeks prior to the deadline and will be due on Friday at midnight
- **Filled-out Lectures and Recordings:** will be posted 12 hours after the lecture

Textbook (optional)

Osterwalder, A., & Pigneur, Y. (2010). Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers. The Strategyzer series. Wiley.

Homework

See the Canvas home page for homework assignments and deadlines.

Workload: **there will be 5 - 7 homework assignments** posted and submitted in pdf file on Canvas and they will account for 15% of the grade.

Collaboration guidelines

Individuals: HW assignments

Groups (or individuals): ICTEs and Final Project

Submission guidelines

You will submit your homework writeup by uploading a .pdf on the Canvas Assignment. **We will only grade legible .pdf files -- we will not grade content in any other file format (.doc, .zip, .ipynb, .m, ...).**

Weekly Topics

Week 1: Introduction to Entrepreneurship and The Lean Startup Methodology

Week 2: Idea validation and market research

Week 3: Customer discovery, finding your beachhead market, business model canvas

Week 4: Minimum viable product (MVP) and product-market fit

Week 5: Financial projections and budgeting

Week 6: Fundraising and startup financing

Week 7: Startup equity allocation, going through a term sheet
Week 8: Pitch/Demo Day

Canvas and Slack

We will use Canvas (i.e. this site) extensively for course materials and **Slack for all communications.**

The instruction team will provide homework, example code, etc. through Canvas; you will submit homework electronically through Canvas as described above.

If you have a question -- about a concept, HW problem, Labs, etc. -- it's likely someone else in the class does as well. **Please use our Slack channel to post questions (rather than emailing or messaging the instruction team directly) so that (a) others get to propose answers and (b) others get to see the definitive answer (if any).** If you send questions via email to the instruction team, we will direct you to ask it on Slack so others can benefit from our answers.

If you are unfamiliar with Canvas, here are some links to help you get started:

<https://www.tacoma.uw.edu/canvas/getting-started> Links to an external site.

<https://www.tacoma.uw.edu/canvas/how-do-i> Links to an external site.

<https://community.canvaslms.com/community/answers/guides/> (Links to an external site.)

Diversity, Equity, and Inclusion

I consider this classroom to be a place where you will be treated with respect, and I welcome individuals of all ages, backgrounds, beliefs, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, sexual orientations, abilities – and other visible and non-visible differences. All members of this class, including instructors, are expected to contribute to a respectful, welcoming, and inclusive environment for every other member of the class.

Disability and access accommodations

Your experience in this class is important to me. If you have already established accommodations with Disability Resources for Students (DRS), please communicate your approved accommodations to me at your earliest convenience so we can discuss your needs in this course.

If you have not yet established services through DRS, but have a temporary health condition or permanent disability that requires accommodations (conditions include but are not limited to; mental health, attention-related, learning, vision, hearing, physical or health impacts), you are welcome to contact DRS at 206-543-8924 or uwdrs@uw.edu or disability.uw.edu (Links to an external site.). DRS offers resources and coordinates reasonable accommodations for students with disabilities and/or temporary health conditions. Reasonable accommodations are established through an interactive process between you, your instructor(s) and DRS. It is the policy and practice of the University of Washington to create inclusive and accessible learning environments consistent with federal and state law.

Religious accommodations

Effective July 28, 2019, [Washington State Senate Bill 5166 \(Links to an external site.\)](#) required that UW develop a policy for the accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities.

The UW's policy, including more information about how to request an accommodation, is available at Faculty [Syllabus Guidelines and Resources \(Links to an external site.\)](#).

Accommodations must be requested within the first two weeks of this course using the Religious Accommodations Request form available

at: <https://registrar.washington.edu/students/religious-accommodations-request/> (Links to an external site.)

Safety

Call SafeCampus at 206-685-7233 anytime – no matter where you work or study – to anonymously discuss safety and well-being concerns for yourself or others. SafeCampus's team of caring professionals will provide individualized support while discussing short- and long-term solutions and connecting you with additional resources when requested.

Academic misconduct

Engineering is a profession demanding a high level of personal honesty, integrity, and responsibility. Therefore, it is essential that engineering students, in fulfillment of their academic requirements and in preparation to enter the engineering profession, shall adhere to the University of Washington's [Student Code of Conduct \(Links to an external site.\)](#).

Any student in this course suspected of academic misconduct (e.g., cheating, plagiarism, or falsification) will be reported to the College of Engineering Dean's Office and the University's Office of Community Standards and Student conduct. (See [CoE website \(Links to an external site.\)](#) for a more detailed explanation of the academic misconduct adjudication process). Any student found to have committed academic misconduct will receive a 0-grade on impacted academic work (e.g., assignments, projects, or exams).