

COURSE SYLLABUS

YEAR COURSE OFFERED: 2020

SEMESTER COURSE OFFERED: Fall

DEPARTMENT: Mechanical Engineering

COURSE NUMBER: ENGI 6397/MECE 5397/ENGI 4397

NAME OF COURSE: Engineering Innovation and Entrepreneurship

NAME OF INSTRUCTOR: Haleh Ardebili

The information contained in this class syllabus is subject to change without notice. Students are expected to be aware of any additional course policies presented by the instructor during the course.

Learning Objectives

This course provides an introduction to engineering innovation and entrepreneurship. It consists of (1) overview of the innovation types and cycles (2) disruptive innovation and technology; (3) overview of intellectual property (IP); how to write an effective patent; how to research prior patents and literature; how to design around the patents.

Major Assignments/Exams

Grades will be determined on the basis of cumulative performance shown in the assignments and the final project.

Assignments 30%
Final Project (Paper and Presentation Slides) 70%

Required Reading

No Required Textbook; Lecture Videos, Presentation Slides and Supplementary Documents will be posted on the Blackboard.

Recommended Reading

Additional materials besides textbooks will be posted.

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List of Discussion/Lecture Topics

Types of Innovation; Entrepreneurship; Framework for Creativity and Innovation; Technology Diffusion; Long Waves (K-Waves); Disruptive Innovation; Pathway to Startups; Free Innovation; Democratizing Innovations; Blue Ocean; Innovation and Intellectual Properties