Engineering Entrepreneurship Minor

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About:

Villanova University's unique Engineering Entrepreneurship minor was started with funds from the Kern Family Foundation, with an objective to equip university students with an entrepreneurial mindset to enable business success. The minor teaches the fundamentals of venture creation beginning with how emerging technologies such as Artificial Intelligence, IOT, Blockchain, and AR/VR can disrupt industries, building opportunity for company launch.

Open to students in all colleges and majors, the minor consists of 16 credits.

Topics in the minor include:

- Creativity frameworks and ideation
- Design Thinking in Disruptive Innovation
- Market research and target market identification
- Stakeholder analysis and customer discovery
- Journey map, value proposition and persona development
- Intellectual property management
- Agile Prototyping
- Product development using Gantt charts and product development timelines
- Entrepreneurial accounting and finance
- Venture pitch and venture funding
- Targeted new product marketing and demand generation
- Startup risk management
- Venture team development

Entrepreneurial Activities:

Students work in intercollegiate teams under the guidance of faculty members and experienced entrepreneurs to develop marketable products and services. Many extracurricular opportunities exist for Engineering Entrepreneurship students.

Current and past Engineering Entrepreneurship students are eligible to apply to <u>The Launchpad</u>, a preseed venture fund that provides targeted funding and resources for company formation and launch into the Philadelphia entrepreneurial ecosystem.

Students also benefit from the <u>Engineering Entrepreneurship Mentor Network</u>, a student-run organization comprised of program alumni that provide mentor support for current student teams, conduct networking events, manage The Launchpad and serve as a touchpoint for graduates.

Additionally, our new internship networking program, <u>Engineering Entrepreneurship Net|Works</u> brings interested employers face to face with students studying Engineering Entrepreneurship.

Lastly, Engineering Entrepreneurship students can apply for the opportunity to serve in <u>The Ambassador Program</u>, an initiative aiming to raise awareness of Engineering Entrepreneurship throughout the Villanova community.

Requirements:

The minor requires the successful completion of six courses (16 credits), four of which are required and two of which are elective courses.

Program: Engineering

Type: Minor

Required Courses:

Course	Title	Credits
EGEN 2100	Creativity and Innovation	1
EGEN 2200	Opport Indentif & Bus Principl	3
EGEN 3100	Feas Analysis for Entrepreneur	3
EGEN 3200	Product & Service Prototyping	3

Elective Courses:

Electives are subject to change. Electives may be added to this list at the discretion of the College of Engineering. Please contact the Minor Director with any questions.

Choose two elective courses from the list below, or permission from Minor Director. Students may also earn 3 elective credits for participation in the European Innovation Academy.

Select two courses from the list below:

Course	Title	Credits
CHE 2900	Global Pharmaceutical Industry	3
CHE 5715	Alternative Energy	3
CEE 3705	Engineering Economics	3
CEE 4606	CEE Capstone Design 2	3
ECE 5480	Android Mobile Dev Programming	3
ECE 5850	Renewable Energy Systems	3
ECE 4970	Design Project - EE	3
ECE 4971	Design Project - CPE	3
ME 5130	Intro to Sustainable Energy	3
ME 5600	Engineering Economics	3
ME 5005	Capstone Design I	2
VSB 3500	Special Topics in Business	3
MIS 3070	Emerging Business Technologies	3
MKT 2240	Marketing Analytics	3
CSC 4800	Web Application Development	3
CSC 4810	Mobile App Development	3

Additional courses not on this list require prior approval from the Minor Director.