

# Entrepreneurial Engineering, Minor

The entrepreneurial engineering minor is designed for the technology-minded entrepreneur who seeks to understand disciplinary fundamentals, assess market needs, create technologies, and determine how to manufacture solutions sustainably and economically. The course requirements for the minor are designed to incorporate both engineering elements (product development and prototyping) and creative elements (product design), along with market and societal considerations (customer discovery and needs assessment). The elective option provides an opportunity to specialize in one of three areas: manufacturing, design, or venture creation. Versions of this minor are available for both engineering and nonengineering majors. Sign up for the minor by contacting your academic advisor.

## Minor Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

### Required Core Courses

Code	Title	Hours
<b>For Undergraduates in the College of Engineering</b>		
GE 5010	Customer-Driven Technical Innovation for Engineers	4
GE 5020	Engineering Product Design Methodology	4
GE 5030	Iterative Product Prototyping for Engineers	4
GE 5100	Product Development for Engineers	4
<b>For Undergraduates outside the College of Engineering</b>		
GE 1110 or ME 2350	Engineering Design Statics	4
Complete three of the following:		
GE 5010	Customer-Driven Technical Innovation for Engineers	4
GE 5020	Engineering Product Design Methodology	4
GE 5030	Iterative Product Prototyping for Engineers	4
GE 5100	Product Development for Engineers	4

### Elective

Code	Title	Hours
Complete 4 semester hours of the following:		
<i>Venture Creation</i>		
ENTR 2303	Marketing Strategies for Startups	
ENTR 3305	Business Model Design and Innovation	
ENTR 3306	Global Entrepreneurship	
ENTR 3330	Design Thinking for Startups	
ENTR 4501	Integrated Studies in Entrepreneurial Startups	
ENTR 4510	Management Consulting Abroad	
ENTR 5000	New Venture Development	
<i>Design</i>		
ARTF 1220 and ARTF 1221	Elements of Visual Composition and Elements of Visual Composition Tools	
ARTF 1230 and ARTF 1231	Making with Form and Materials and Making with Form and Materials Tools	
ARTG 1270 and ARTG 1271	Design: Process + Practices and Studio for Design: Process + Practices	
ARTG 3462	Experience Design Principles	
ARTG 3464	Topics In Experience Design Inquiry	
<i>Manufacturing</i>		
IE 2310	Introduction to Industrial Engineering	
IE 4512	Engineering Economy	
IE 4525	Logistics and Supply Chain Management	
IE 4530	Manufacturing Systems and Techniques	

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**GPA Requirement**

2.000 GPA required in the minor