

COURSE RECORD

Code	BA 460
Name	Entrepreneurship for Engineers and Scientists
Hour per week	3 (3 + 0)
Credit	3
ECTS	5
Level/Year	Undergraduate/ 3-4
Type	Elective
Prerequisites	-
Description	This course provides hands-on experience with modern theories and tools related to entrepreneurial thinking and technology-driven ventures. It is designed primarily for engineers and scientists aiming to transform technological innovations into viable businesses. Key topics include customer discovery, business model development, go-to-market strategies, intellectual property, financing, and startup planning. Through lectures, readings, and guest speakers, students will explore how to identify societal needs, create value through innovation, and build commercialization strategies. The course emphasizes applied learning and encourages entrepreneurial action rooted in technical expertise and real-world impact.
Objectives	Identifying and screening potential business ideas. Being able to develop business ideas into business models. Learning how to examine business assumptions embedded in business models and iterate the model. Gaining a comprehensive understanding of the pivotal role played by technology-based entrepreneurship. Developing the skills and learning how to choose the tools and resources to become a successful entrepreneur.
Learning Outcomes	<i>By the end of the course, the students will be able to</i> LO1. Develop business models for business ideas. LO2. Assess probability of success of the business models. LO3. Explain how to develop a business idea into a business venture. LO4. Develop skills in ideation, prototyping, and product development. LO5. Explain funding sources, financial management, and venture capital.

CONTRIBUTION TO PROGRAMME OUTCOMES*

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
LO1	5	3	1	3	0	3	0	1	0	0
LO2	5	3	1	3	0	3	0	1	0	0
LO3	5	3	1	3	0	3	3	1	0	0
LO4	5	5	0	5	4	3	0	4	1	2
LO5	5	4	5	0	2	0	1	1	2	5

* Contribution Level: 0: None, 1: Very Low, 2: Low, 3: Medium, 4: High, 5: Very High

CONTRIBUTION TO INSTITUTIONAL LEARNING OUTCOMES*

	ILO1	ILO2	ILO3	ILO4	ILO5	ILO6	ILO7
LO1	4	5	2	2	4	4	3
LO2	4	4	2	2	4	3	3
LO3	4	4	2	2	4	4	3
LO4	5	5	2	2	4	4	3
LO5	4	4	2	2	4	4	3

* Contribution Level: 0: None, 1: Very Low, 2: Low, 3: Medium, 4: High, 5: Very High

COURSE CONTENT DETAILS

Topic	Outcomes
Opportunity and value assessment	L02, L03, L04
Intellectual property (IP)	L04, L05

Business Model and Business Plan fundamentals	L01, L02, L03
Technology readiness levels	L04, L05
Invention to product: timelines and processes	L01, L03, L04
Tools for financial estimations, Pitching for cash	L02, L03, L05

DERS BİLGİLERİ

Kodu	BA 460
İsmi	Mühendisler ve Bilim İnsanları için Girişimcilik
Haftalık Saati	3 (3 + 0)
Kredi	3
AKTS	5
Seviye/Yıl	Lisans/3-4
Dersin Dili	İngilizce
Tip	Seçmeli
Ön Şart	-
İçerik	Bu ders, girişimcilik düşüncesi ve teknoloji odaklı girişimler üzerine uygulamalı bir öğrenme deneyimi sunar. Özellikle teknolojik yenilikleri sürdürülebilir iş modellerine dönüştürmek isteyen mühendis ve bilim insanlarına yöneliktir. Müşteri keşfi, iş modeli geliştirme, pazara giriş stratejileri, fikri mülkiyet, finansman ve girişim planlaması gibi konular ele alınır. Ders; anlatımlar, okumalar ve konuk konuşmacılar yoluyla, öğrencilerin toplumsal ihtiyaçları tanımlamasını, yenilikle değer üretmesini ve ticarileştirme stratejileri geliştirmesini desteklemektedir. Uygulamalı öğrenme ön plandadır ve teknik bilgiye dayalı girişimcilik teşvik edilmektedir.