

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 |
| Туре | Elective |
| Prerequisites | - |
| Description | This course aims to provide a hands-on experience to learn modern theories and tools related to entrepreneurial activity and thinking. The course focuses particularly on Engineers & Scientists who would like to start a business that uses a particular technology at its core. Topics covered will include customer discovery, the development of a viable business model, the evaluation and planning of the start-up businesses, alternative go-to-market strategy, intellectual property, and financing. The course will use lectures, directed readings, and guest speakers. Students will be introduced to the basics of entrepreneurship – seeking opportunities for innovative technical solutions to the needs of society and taking these ideas to the market by developing a viable business model, a sound business plan, and a commercialization strategy. |
| 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 | By the end of the course, the student will be able to 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*

| CONTRIBUTION TO I ROUMANINE OUTCOMES | | | | | | | | | | |
|--------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| | PO1 | PO2 | PO3 | PO4 | PO5 | P06 | P07 | P08 | P09 | PO10 |
| LO1 | 5 | 3 | 1 | 3 | 0 | 3 | 0 | 1 | 0 | 0 |
| LO2 | 5 | 3 | 1 | 3 | 0 | 3 | 0 | 1 | 0 | 0 |
| L03 | 5 | 3 | 1 | 3 | 0 | 3 | 3 | 1 | 0 | 0 |
| LO4 | 5 | 5 | 0 | 5 | 4 | 3 | 0 | 4 | 1 | 2 |
| L05 | 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



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 sayesinde modern girişimcilik teorileri ve araçlarını öğrenme imkanı yaratılacaktır. Ders, özellikle odağında teknoloji barındıran fikirleri uygulamaya geçirmek isteyen mühendisler ve bilim insanlarını hedefler. İşlenecek konulara: müşteri keşfi, iş modeli geliştirme, yeni girişimlerin planlanması ve değerlendirilmesi, alternatif piyasaya-çıkış stratejileri, fikri mülkiyet hakları, ve finansman dahildir. Derste ders verme, yönlendirilmiş okumalar, ve konuk konuşmacılar kullanılacaktır. Ders kapsamında girişimciliğin temel konuları işlenecektir, örneğin toplum faydasına teknik çözümlere uygun firsatların belirlenip, sağlıklı birer iş modeli, planı ve ticarileşme stratejisiyle pazara çıkmasının sağlanması. |