

## Electives English Engineering

### **Design Thinking: Creativity, Prototyping And User Experience (Feb/Jun)**

Provide students design tools and techniques based on creativity, prototyping and user experience for problem solving, search of opportunities and promotion of an entrepreneur and/or Intrapreneur in different fields. Design will be applied to project also as a mindset change and possibility to innovate. This course is a balance between theory a practical activities as a way to better understand the complexities of the world today.

### **Startup Lab (Feb/Jun)**

This course was structured for someone that has a startup or planning to create one in the next three years. This timeframe is important because course content was planned to be totally applied. Students will acquire startup creation techniques, such as: Lean Startup, Customer Development, Design Thinking, Job to be done, Scrum, Lean Analytics, OKR; exposure to the Brazilian entrepreneurship community, challenges and dilemmas.

### **Product-Service System (PSS) Design (Aug/Dec)**

In a complex world driven by technology and by complex changes in demographics, social and economic aspects, companies need to rethink the way they will compete, differentiate themselves from competitors and create value to their stakeholders.

Product Service System Design may offer Instruments in order to address the complexities of value creation in a changing business environment. Exploring the intersections among business, engineering and economies, at the end of this discipline student will be able to understand the basic concepts supporting the PSS concept and will be capable of understanding its potential as a business and innovation tool that may create and deliver relevant value to consumers by exploring. Given its practical nature, this discipline will allow students to apply different tools in order to design and evaluate a Product Service System.

### **Entrepreneurial Quotient: Pillars and Dimensions of Entrepreneurship (Feb/Jun)**

By completion of this program students will be able to: analyze individuals and teams making use of the QEMP methodology; identify entrepreneurship pillars and personal dimensions while analyzing a new venture; build a professional development program, based on entrepreneurs', teams' and companies' needs; distinguish between individual, teams', company's and other stakeholders' needs and Interests and mentor individuals and teams, taking into account formal and informal learning programs.

### **Technological Innovation (Feb/Jun)**

This course analyses the role of technology Innovation and transfer in a company's position in the market. It also allows a better understanding of the value of an innovation strategy based on a systemic, scientific approach, in all dimensions technology innovation, from creativity and ideation processes, R&D mechanisms, the analysis of the markets and the consumer, and so on.

### **Value Chain and Business Ecosystems Management (Aug/Dec)**

Competitive advantage, value creation, profitability pools, relative cost and relative price position, business management, value chain, supply and demand management, industry structure, firm resources and capabilities, activity systems, new venture/Innovation, product design and production, business concepts and models, logistics, supply chain management, inter-firm coordination, business ecosystems structure, nodal advantage and strategies.