

Course Name: Essentials of Management of Technology

Introduction

Essentials of Management of Technology course is designed to focus on technology and innovation as key to wealth creation, competitiveness and sustainable growth for technology based firms. The course emphasizes a practical understanding of the major concepts including the definition and forms of creativity, invention, innovation, the interactive relationship between the technology development and market introduction and the basics of competition nature at the different phases of technology development life cycle. At the end of the course participant will be able to identify his/her product/service or project/idea current internal and external technological competitive position, through applying a set analysis techniques

Course Objectives

Upon the completion of the course; participants will be able to perform the following:

1. Understand issues pertaining to the competitiveness of technology and service enterprises in the global market place.
2. To stress the importance of technologies as the driving force in achieving competitiveness.
3. Impress the importance of considering both the speed and scope of change of technological development and the consequential paradigm shift in the way we deal with the industrial and business enterprise system.
4. Understand the process of technological innovation and the concepts of technology and product life cycles.
5. Emphasize the importance of integrating technology strategy with business strategy.
6. Highlight the techniques for "Technology Forecast" and how to "Go To Market"

Delivery Methodology

The certificate is designed to ensure the maximum active participation of the participants through:

- Group work.
- Lectures.
- Pair works.
- Presentation.
- Class discussion

Course Outline

The consists of the following modules:

Module 1: Introduction to Technology, Creativity, Invention and Innovation

- Understanding the definition of Technology
- Understanding MOT definition
- Distinction between Creativity, Invention and Innovation

Module 2: Innovation and Markets

- Differentiate between the different types and forms of innovation
- Technology and Market Interaction Relation
- Elements of the innovation process
- Process of technological innovation

Module 3: Technology and Product/Service Life Cycle and Competition

- The Technology Life cycle
- The Product/Service Life Cycle
- Understanding the basics of competition at different phases of technology life cycle

Module 4: Internal Technological Competitiveness Analysis

- Introduction to the Concepts of Competitiveness
- Identification of Technological Core Competency
- Analyzing Internal Technological Capabilities

Module 5: External Competitiveness Analysis

- Analyzing External Industry Environment
- Identify Competition differentiation
- Developing SWOT Analysis

Module 6: Technology Planning

- Technology forecasting: Tools and Techniques
- Technology planning
- Time to market and its relation with holistic approach for “go to market”

Module 7: Idea To Market

- Technology readiness level
- Business modeling

Module 8: Emerging issues (Self Study):

- The Technology Perspectives: View of: security, regulations, privacy, standards, adoption plans, interoperability, and integrity

Evaluation and Assessment

The participants will be assessed at follows:

- Attendance: 10 points
- Class work and assignments: 15 points
- Mid-term exam: 20 points
- Class project: 15 point
- Final Exam: 40 points