New Product Design and Development

Course description

New products and services are vital to all companies. Maximizing the success of new products and services can drive growth and shareholder value, lead to significant competitive advantage and leapfrog a company ahead of its competitors. However, innovation is risky and most new products fail in the marketplace. Often, failure is due to an ineffective process. Thus, expertise in the design and marketing of new products is a critical skill for all managers, inside and outside of the marketing department. In this course, we first focus on the tools and techniques associated with analyzing market opportunities and then focus on designing, testing, and introducing new products and services. Both quantitative and qualitative approaches are covered. In particular, the course covers the new product development process, strategic opportunity identification, how to generate new product concepts and ideas, mapping customer perceptions, segmentation, product positioning, forecasting market demand, product design, market entry strategies, and testing. It emphasizes how to lead the organization in the process, incorporate consumers, customers and competitors into all of these aspects of new product development.

Course Introduction

This course is designed to familiarize students with the principles and practices in the development, design, marketing and introduction of new products and services. Specific objectives are:

- To understand the new product process.

- To learn how to integrate the customer and end-consumer into this process.

- To learn and apply the concepts and tools necessary through case examples and assignments.

- To actually use the new product development process by conceiving your own new product or service and an introductory launch plan.

- To participate in group work sessions and teams to become acquainted with the importance of teamwork and collaboration that is critical to new product success.

Module Content

- Product development process
- Effective Design Management
- Lean New Product Introduction
- The relationship of tangible product and brand
- Management of creativity
- Concurrent Engineering
- Organisation for effective product design and development
- Design protection and intellectual property rights
- Case study
- Tools, Techniques, and Technologies including;
    - Concept generation and Selection
    - Design for Assembly/Manufacture
    - Life Cycle Costing and Design to Cost
    - Design Validation
- Industrial Experiences
- User / Customer View
- Innovative Products