OPM3131 Introduction to Operations Management

Code
OPM3131

Title
Introduction to Operations Management

Prerequisites
none

Credits
3

Description
This course describes the nature and scope of Operations Management and how it relates to other parts of the organization. It helps students develop the skills and concepts needed to ensure the ongoing contribution of a firm's operations to its competitive advantage, and understand the complex processes underlying the development and manufacture of products as well as the creation and delivery of services. Various functions essential to planning, organizing, and controlling of operations will be described, associated costs and other relevant inputs will be discussed, and simple models of operational scenarios will be formulated and solved. The covers such areas as P/OM integration in the organization, productivity, product and service design, facility location and layouts, quality assurance, project management, aggregate planning, MRP, DRP, forecasting, total quality management, production and capacity planning, scheduling, world-class manufacturing, just-in-time operations, time-based competition, business re-engineering and operations strategy. International and global scenarios/cases will be studied and solved. Ethical issues will be discussed.

Objectives
The course provides students with the concepts and skills needed to understand how to analyze, design, improve, and manage operations environment, starting with individual operating systems and expanding to the overall operations functions. This is an overview course aimed at supplying the concepts and insights needed for general managers, not technical experts in operations and logistics. At the same time, the course delivers knowledge and understanding of the scope, importance, critical success factors, and key issues and decision to enable future corporate executives in any industrial and technological domain to make integrated decisions in Operations, Marketing, Finance, Accounting and IS. Similarly, a student entering the financial industry as an investment banker, analyst or venture capital professional would be able to diagnose the operational value and health of the investment or acquisition target. Learning objectives are placed into three categories: knowledge, skills, and application abilities.

Outcomes
At the end of the course, students should be able to do the following: KNOWLEDGE: Students will have an understanding of Various functions of Operations Management. The relationship between Operations and other departments. The importance of operational problems and other forces affecting businesses. Contribution of operations to the firm's competitive advantage. SKILLS: Students will learn to Compute profits and costs, allocate resources, and forecast future trends. Do what-if-analysis. Develop simple mathematical models pertaining to operations problems. Use information systems and Decision Science tools for solving operational problems. Resolve conflicts and improve customer service. APPLICATION ABILITIES: Students will be able to Develop efficient and effective procedures and policies. Implement ethical decisions and incorporate strategies to achieve goals and objectives. Link various forces acting on and challenges facing the organization. Develop effective groups to solve operational problems.

Assessment
60 % -first and second assessments
40 % -final assessment

Tentative course outline
Week1
"Introduction to OM Introduction to Strategy. Operations Strategy"

Week2
OM in goods and services. Productivity

Week3
"Project Management Trip"

Week4
"Project Management Trip"

Week5
Forecasting

Week6
New product and service development, and process selection

Week7
Total Quality Management

Week8
Statistical process control

Week9
"Process Strategy and Analysis Job design and work performance measurement Trip"

Week10
"The Role of Technology in Operations (ERP) Capacity Planning Trip"

Week11
Location strategy

Week12
Layout and Line Balancing

Week13
Midterm exam 2

Week14
"Supply Chain Management Inventory Management"

Week15
Project presentations Final Exam