MCE327 Technology Management (3 Units)

Department of Mechanical Engineering

Covenant University
1. MCE327
1.1. MCE327 Technology Management (3 Units)

Introduction - Technology and technological innovation; Specific issues and general; Innovation and competitive advantage; Types of innovation; the importance of incremental innovation; Innovation as a knowledge-based process; the challenge of discontinuous innovation. The Management of Research and Development What is R & D; Basic and Applied Research; Centralized and Decentralized R&D; Managing Research Teams; Evaluation and Assessment of R&D. The Management of New Product Development - What is a new product? The potential benefits of new product development; What makes a firm innovative in its new product development; Internal organizational integration for new product development; The importance of coordination in new product development; Human resource management factors in new product development; Project management techniques in new product development; Failure in new product development. The management of Operations and Production What are operations and production and why are they important; Some techniques of operation and production management; Lean production; Investment appraisal techniques; Manufacturing strategy.

Technology Strategy Why technological innovation is a strategic management issue; Technology strategy; Technological competencies; Learning and Technology strategy. Technological Collaboration Introduction; Why firms collaborate in Technological activities; The extent of Technological collaboration; The challenges of managing Technological collaboration; Trust and Technological collaboration. The Commercialization process What is Commercialization process?; Marketing Technology products; Intellectual Property right and know-how; Licensing; Technology Pricing; Technical standards; Technology transfer. Some future challenges for the management of Technological Innovation.