

Management of Technology

Credit hours: 3

Course Objectives

The course focuses on different matters of importance and issues related to management of technology in the organizational context. It builds on students' knowledge about the role of technology in today's business world. They will understand how to better select technological opportunities and understand organizational challenges that prevent these technologies from being successful.

Course Description

This course is concerned with the management issues surrounding the technology being used in organizations. The focus will be on the theoretical and practical aspects of management of technology in organizations. This course is also concerned with human and organizational issues as well as strategic and operational issues related to technology introduction and use. It provides frameworks and management principles that managers can employ to cope with the challenges inherent in the implementation of rapidly advancing technology.

Course Outcomes

By the end of the course, students should be able to:

- Explain the key concepts and the dynamics of technology as used in business;
- Discuss the management issues related to technology acquisition, application, protection and maintenance;
- Analyze and formulate technology policies and strategies for business organizations;
- Know how to implement technology policies and strategies;
- Understand how to manage ideas and knowledge in a technology-based organization;
- Facilitate organizational change and sustainable improvements at the enterprise level through competitive work systems.

Course Contents

The following themes or topics are included:

- Introduction and key concepts of technology management
- Sources and types of technology
- Changing context of technological environment
- Critical factors in managing technology
- Strategic implications of technology
- Needs assessment of technology
- Industrial analysis and technology planning

Technology choice and life cycle
Technology acquisition and utilization
Technological forecasting
Organizational implications of technology
Financial aspects in technology management
Social issues in technology management
Technological change and industrial relations
Technology assessment and environmental impact analysis
Human aspects in technology management
Technology transfer, licensing, joint venture, technology alliance
Technology management scenario in Nepal

References

1. Khalil, T. Management of Technology: The Key to Competitiveness and Wealth Creation. New Delhi: Tata McGraw Hill.
2. Rastogi, P. N. Management of Technology and Innovation: Competing through Technological Excellence. Delhi: Sage Publications.
3. Schilling, M. Strategic Management of Technological Innovation. New Delhi: McGraw-Hill.
4. Burgelman, R. A., Christensen, C. M., & Wheelwright, S. C. Strategic Management of Technology and Innovation. Boston: McGraw-Hill.