

MBA II Year	MBA-E324/424		Semester-III/IV		
	Managing Technology and Innovation				
Time Allotted for End Semester Examination	Marks Allotted for Internal Assessment	Marks Allotted for End Semester Examination (ESE)	Maximum Marks (MM)	Total Credits	Maximum Hours
3 Hrs.	30 (20+10)	70	100	03	40

OBJECTIVE: This course intends to introduce the innovation process and its management; to provide insights into the process to be followed in order to manage technological change; to explore the effects of technology on the work force and the quality of work life. Technology and innovation are value drivers and that management decisions should be anchored in the fundamental objective of the creating competitive advantage.

- Technology: Definition and Characteristics, Management of Technology, Two contemporary perspectives in Management, Key concepts. Technological Environment. Environment and Technological Environment, Actors in the Technological Environment, Changes in the Technological Environment, Major current developments in the Technological Environment. **Case Study1:** Emerging Technologies, UAE **(8 hours)**
- Innovation. Overview of the Dynamics of Technological Change, Concept of Innovation, Innovation Dynamics at the firm level, Technology Evolution, Characteristics of Innovative Firms. Process of Technologies Change. Diffusion – Concept of Diffusion, Dynamics of Diffusion, A model of Innovation Adoption, Factors that Drive the Process of Diffusion, Influence of Environmental Trends on Diffusion. **(8 hours)**
- Competitive Domains, Competitive consequences of Technological Change, Technological Characteristics of Competitive Domains. Process Innovation, Value chains and Organization. Drivers of change in value chain, Modes of Value chain configuration, Value chain configuration and Organizational characteristics, Design of work and careers, Influence of Environmental Trends. **Case Study2:** Enabling excellence in operations through technological innovation **(8 hours)**
- Introduction, Mapping Technology Environment, Mechanism for Data Collection, Analytic tools, Managing Environmental Analysis in Organizations. Technology Strategy. Overview. Technology Business Connection, Technology Strategy: Definition, The key Principles Underlying Technology Strategy, Technology Strategy Types, A frameworks for formulating Technology Strategy. **(8 hours)**
- Evolution of Technology Appropriation Principles, 3G Approach for the Appropriation of Technology, Productivity of In. House R&D. Organizing for Innovation. Organizational Mechanism for Innovation, Principles & Process of organizing, Characteristics of continuously innovative organizations, Role of Leadership. **(8 hours)**

SUGGESTED READINGS:

1. Burgelman R. A., Christensen C. M., & Wheelwright S. C. (2004). *Strategic Management of Technology and Innovation*. Tata McGraw Hill Education Pvt. Ltd, New Delhi.
2. Nord, W., & Tucker, S. (1987). *Implementing routine and Radical Innovations*. Lexington Books, USA.
3. M.E. Porter. (1985). *Competitive Advantage*. Free Press, NY.
4. Makridakis. S. (1989). *Forecasting Methods for Management*, Wiley. Inter Science, USA
5. Maidique, eds M.A. (2008). *Strategic Management of Technology & Innovation*. Homewood.
6. Singh V.K. and Madan P. (2014). *Managing Innovations*, McGrawhill.
7. Pritchett, Price. (1994). *New Habits for a Radically Changing World*. Pritchett & Associates, USA

8. Rogers, E. M.(1995). *Diffusion of Innovation*. Free Press,NY.
9. Rao, A.S. (1994). *Managing of Technology Change*.Global Business Press, USA.
10. Edosomwan, J. A.(1989). *Integrating Innovation and Technology Management*.John Wiley & Sons, USA.
11. Steele, L.W. (1989). *Managing technology. The Strategic View*.McGraw Hill, New Delhi.
12. **Case Study1:** JawahithaSarabdeen Kamal Jaafar, (2011),"Emerging Technologies, UAE", Emerald Emerging Markets Case Studies, Vol. 1 Iss 1 pp. 1 – 4. Permanent link to this document: <http://dx.doi.org/10.1108/20450621111110276>
13. **Case Study2:** Meeta Dasgupta, (2011),"Enabling excellence in operations through technological innovation", Emerald Emerging Markets Case Studies,Vol. 1 Iss 2 pp. 1 – 22. Permanent link to this document: <http://dx.doi.org/10.1108/20450621111151767>.

NOTE: The list of cases, specific references and books including recent articles will be announced in the class by concerned teachers from time to time.