

MANAGEMENT OF TECHNOLOGY

I Semester: MBA								
Course Code	Category	Hours / Week			Credits	Maximum Marks		
CMB015	Core	L	T	P	C	CIA	SEE	Total
		3	-	-	3	30	70	100
Contact Classes: 45		Tutorial Classes: Nil		Practical Classes: Nil		Total Classes: 45		
<p>OBJECTIVES:</p> <p>The course should enable the students to:</p> <ol style="list-style-type: none"> I. Develop the ability to design innovation strategies that can successfully take advantage of innovation opportunities. II. Able to examine the patterns and sources of technological change and the mechanisms for capturing the economic benefits from innovation III. Identify the strategic and organizational challenges involved in managing technological innovation. IV. Explores the challenges, tools and principles involved in managing innovation and technology. <p>COURSE OUTCOMES:</p> <ol style="list-style-type: none"> 1. Understand the main source of conceptual learning skills in today's business environment. 2. Analyze financial performance of an organization 3. Evaluate the organizational decisions with consideration of the political, legal and ethical aspects of business. 4. Assess strengths, weaknesses, opportunities and threats of the business environment 5. Recognize the diversity of types of innovation, innovators and innovation settings. 6. Evaluate functions using various types of nature and extent of technological change and innovation 7. Critically assess and explain key current issues in our understanding of innovation as a field of study. 8. Analyze and articulate ideas in group settings to a range of audiences to demonstrate effective writing skills, active listening skills and foster open communication. 9. Understand and articulate ethical issues of making decisions consistent with societal and organizational standards. 10. Recognizing the need for technology and demonstrating a desire for continuous change process. 11. Anticipate the local and global impact of decisions to remain current in technological development and aspects of current issues, local, national, and international. 12. Analyze the leadership, motivation, and feedback to team members . 								
UNIT-I	TECHNOLOGICAL INNOVATION						Classes: 08	
<p>The need for a conceptual approach, technological innovation as a conversion process factors contributing to successful technological innovation. Strategies for research and development: research and development as a business, resource allocation to research and development, research and development strategy in the decision making process, selection and implementation of research and development strategy, research and development and competitive advantage, new product development techniques for creative problem solving.</p>								

UNIT-II	FINANCIAL EVALUATION OF RESEARCH AND DEVELOPMENT	Classes: 09
Financial evaluation of research and development projects: the need for cost effectiveness, financial forecasts, risk as a factor in financial analysis, project selection formulae and allocation of resources, DCF and other techniques of evaluating research and development ventures.		
UNIT-III	RESEARCH AND DEVELOPMENT	Classes: 09
Program planning and control, portfolio planning, project planning and control, project termination, resource allocation and management. New product development: new product development as a competitive strategy, market research for developing new products. Commercialization of research outcomes, industrial design, product architecture and design for manufacture, developing indigenous substitute for raw materials.		
UNIT-IV	TECHNOLOGICAL FORECASTING FOR DECISION MAKING	Classes:10
The definition of technological forecasting, forecasting, system inputs and outputs, classification of forecasting techniques, organization for technological, forecasting, current status.		
UNIT-V	TRANSFER OF TECHNOLOGY	Classes:09
Transfer of technology: modes of technology transfer, price of technology transfer, negotiation for price of management of technology.		
Text Books:		
<ol style="list-style-type: none"> 1. Tarek Khalil, "Management of Technology —The Key to Competitiveness and Wealth", Tata McGraw Hill, Boston, 4th Edition,2011. 2. V.K.Narayanan, "Managing Technology and Innovation for Competitive Advantage", Pearson Education, 3rd Edition,2007. 3. Norma Harison and Samson, "Technology management – Text and cases", Tata McGraw Hill, 4th Edition, 2011. 		
Reference Books:		
<ol style="list-style-type: none"> 1. Shane, "Technology Strategy for Managers and Entrepreneurs", Pearson, 5th Edition, 2015. 2. Khandwala, "Corporate Creativity", Tata McGraw Hill, 4th Edition, 2013. 3. Lucy C. Morse, Daniel L. Babcock, "Managing Engineering and Technology ", Pearson , 6th Edition, 2014. 		
Web References:		
<ol style="list-style-type: none"> 1. http://www.change-management.com/Prosci-Defining-Change-Management.pdf 2. http://www.tcs.com/SiteCollectionDocuments/White%20Papers/EntSol-Whitepaper-Change-Management-Theories-Methodologies-0213-1.pdf. 		
E-Text Books:		
<ol style="list-style-type: none"> 1. http://www.nickols.us/four_strategies.pdf 2. http://ifcext.ifc.org/ifcext/spiwebsite1.nsf/0/00DB06A86B84D253852576BA000E2AF0/\$File/MoC%20Procedure.pdf 		