

MANAGEMENT OF TECHNOLOGY

III Semester: MBA								
Course Code	Category	Hours / Week			Credits	Maximum Marks		
CMBB06	Core	L	T	P	C	CIA	SEE	Total
		4	-	-	4	30	70	100
Contact Classes: 45	Tutorial Classes: Nil	Practical Classes: Nil			Total Classes: 45			
OBJECTIVES:								
The course should enable the students to:								
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.								
COURSE OUTCOMES (COs):								
1. Able to design and implement innovation strategies in organizations, corporate foresight and technology with the aim of detecting sources of competitive advantage for evaluating and selecting R&D proposals. 2. Examine product failures and try to understand the causes of product failures. 3. Understand the cost effectiveness in financial aspects of Research and Development in new product development 4. Identify the discounted cash flow techniques and other techniques for evaluating research and development projects. 5. Explain the need and importance of research and development in new product development 6. Able to manage innovation activities (new product and process development) for decision making, management and early cancellation. 7. Understand the major forecasting tools and techniques tools that are used in technological forecasting to know the current status 8. Explain the role of technological forecasting and examine technology role in decision making with regard to technological issues. 9. Why should company go in for technology transfer to manufacture a new product or implementing a new product? 10. Utilize high level interpersonal skills to negotiate and communicate effectively with both technical and non-technical stakeholders verbally and in writing								
UNIT-I	TECHNOLOGICAL INNOVATION						Classes: 10	
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.								
UNIT-II	FINANCIAL EVALUATION OF RESEARCH AND DEVELOPMENT						Classes: 11	
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: 10	
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: 12
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: 10
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. Neelakantam Tatikonda, “ Management of Technology”, Excel Publications , New Delhi, 1st Edition, 2010 2. Tarek Khalil, “Management of Technology, “The Key to Competitiveness and Wealth”, Tata McGraw Hill, Boston, 4th Edition, 2011. 3. V.K.Narayanan, “Managing Technology and Innovation for Competitive Advantage”, Pearson Education, 3rd Edition, 2007. 4. Norma Harison and Samson, “Technology Management Text and cases”, Tata McGraw Hill, 4th Edition, 2011. 		
Reference books		
<ol style="list-style-type: none"> 1. C.S.G.Krishnamacharyulu, “ Management of technology “ Himalaya Publications , 2nd Edition, 2010 2. Shane, “Technology Strategy for Managers and Entrepreneurs”, Pearson, 5th Edition, 2015. 3. Khandwala, “Corporate Creativity”, Tata McGraw Hill, 4th Edition, 2013. 4. 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.bookboon.com 2. http://www.freemagagement.com 3. http://www.emeraldinsight.com 4. http://www.nickols.us/four_strategies.pdf 5. http://ifcext.ifc.org/ifcext/spiwebsite1.nsf/0/00DB06A86B84D253852576BA000E2AF0/\$File/MoC%20Procedure.pdf 6. %20Procedure.pdf 		