

<b>Course Title:</b> Innovation and Change Management for Infrastructure Projects				
<b>Course code:</b> BSI 132	<b>No. of credits:</b> 2	<b>L-T-P:</b> 20-08-00	<b>Learning hours:</b> 28	
<b>Pre-requisite course code and title (if any):</b> NA				
<b>Department:</b> MBA (Infrastructure)				
<b>Course Coordinator:</b>	Dr. Jayati Talapatra	<b>Course Instructor:</b>	Dr. Jayati Talapatra	
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<b>Course Type:</b>	Core	<b>Course Offered in:</b>	Semester-3	
<p><b>Course Description:</b> Innovation is the key to infrastructure management as this is where the most value is added and profits lie. This course aims to equip students of MBA (Infrastructure) with an understanding of the main issues in the management of technological innovation and an appreciation of the relevant skills needed to manage innovation at both strategic and operational levels. Through this course, students will be able to examine the patterns and sources of technological change and the mechanisms for capturing the economic benefits from innovation as well as to identify the strategic and organizational challenges involved in managing technological innovation. This course is designed to equip the students with concepts of invention, design, research, technological development and innovation, main models of innovation and tools of innovation management. The Students will develop an ability to design innovation strategies that can successfully take advantage of innovation opportunities in infrastructure sector.</p>				
<p><b>Course Objectives:</b></p> <p>To familiarize the students with the concepts of invention, design, innovation and technological development.</p> <p>To make students appreciate the criticality of innovation for businesses and its link with business strategy</p> <p>To develop skills to manage knowledge, innovation and technological development in an organizational context</p> <p>To develop an understanding of Managing change</p>				
<b>Module</b>	<b>Topic</b>	<b>L</b>	<b>T</b>	<b>P</b>
1	<p><b>Introduction to Innovation</b>  Concepts – Entrepreneurship, Design, invention, types of innovation, Technology and science.  Importance of innovation, need to study innovation in Organizational context.</p>	2	0	0
2.	<p><b>Models of Innovation;</b>  Serendipity, Linear models, simultaneous coupling model, Interactive model, Open innovation</p>	2	1	0
3.	<p><b>Innovation as a management Process and Managing Innovation within Firms</b>  Setting goals, Combining Ideas, Testing Ideas, Evaluation of Innovation, Assessment of Innovation Life-Cycle.</p>	2	1	0
4.	<p><b>Managing organizational knowledge</b>  Technology Trajectories, knowledge base of an organization, the learning organization, degree of innovativeness, technology strategy; a link between innovation strategy and Business Strategy</p>	2	0	0
5.	<p><b>Strategic alliances and networks</b>  Licensing, supplier relations, outsourcing, joint venture, collaboration, R&amp;D consortia, Industry Clusters, Innovation networks, the “Virtual Company”.</p>	1	1	0
6.	<p><b>Management of Research and Development</b>  What is research and development?, operations that make up</p>	2	0	0

	research and Development, R&D management and its link with business strategy, Strategic pressures on R&D, R&D projects, Intellectual Property Rights			
7.	<b>Technology Management</b> Technology and Innovation Strategic Management of Technology Technology Transfer Internet of Things	1	1	0
8.	<b>Organizational Change : An Overview</b> The Importance of Change Forces of Change Organizational Change : Some Determining factors	2	0	0
9.	<b>Change and its Impact</b> How people are affected by Change How people react to change Why is change often resisted Overcoming resistance to change	1	1	0
10.	<b>Organization Strategy, Structure and Change</b> The Significance of Structure for Change Perspectives on Organizational structure Forms of Organizational Structure Virtual Organizational Models Reengineering and Restructuring the Organizations	3	1	0
11.	<b>Organizational Culture and Management of Change</b> What is Organizational Culture? Steps for Bringing about Cultural Change in Organizations.	1	1	0
12.	<b>Downsizing and the management of change</b> Downsizing in recession The management of change implications of downsizing Meeting the Challenges of Sustainability	1	1	0
	<b>Total</b>	20	8	0
<b>Evaluation Criteria</b>				
Minor Test-20%				
End Term Examination-40%				
Class Participation-10%				
Assignment and Presentation-30%				
<b>Learning Outcomes</b>				
Students, who successfully complete this course, should be able to:				
<ul style="list-style-type: none"> <li>• Understand and appreciate innovation, processes involved and its criticality for Business.</li> <li>• Appreciate the link between Innovation, Technology, Research &amp; Development and Firm Strategy</li> <li>• Apply their knowledge in the domain to facilitate and leverage innovation in their respective fields</li> <li>• Understand the process of change and organizational development</li> <li>• Diagnose problems and identify issues and opportunities for change</li> </ul>				
<b>Pedagogical approach</b>				
A combination of class-room interactions and assignments with special emphasis on case studies and real life examples.				
<b>Suggested readings : Core Text</b>				

Trott, P. (2008). *Innovation management and new product development*. Pearson education.

**Modules 1- 7:**

Trott, P. (2008). *Innovation management and new product development*. Pearson education.

**Modules 8, 9:**

Singh Kavita, *Organization Change and Development*, 2<sup>nd</sup> ed., New Delhi: Excel Books

Freidman, T. (2005). *The world is flat*. New York: Farrar, Straus and Giroux.

Johnson, S. *Who moved my cheese*. Random House.

**Modules 10,11,12:**

Cummings, Thomas, and Christopher Worley. *Organization development and change*. Cengage learning.

Sengupta Nilanjan, Bhattacharya S. Mousumi & Sengupta N. R., *Managing Change in Organizations*, New Delhi: PHI Learning Pvt. Ltd.

Jones, G. R. *Organizational theory, design, and change*. Upper Saddle River: Pearson.

**Other Readings:**

Thomke, S. H., & Feinberg, B. (2009). *Design Thinking And Innovation At Apple*.

*Assessing Your Innovation Environment: A Tool From "The Innovator's Guide To Growth"* Scott D.

Anthony; Mark W. Johnson; Joseph V. Sinfield; Elizabeth J. Altman

Skarzynski, P., & Gibson, R. (2009). *Building A Systematic Innovation A Capability*.

Skarzynski, P., & Gibson, R. (2008). *Innovation To The Core*. Harvard Business School Press, Boston.

Pathak Harsh, *Organizational Change*, New Delhi, Pearson Education Ltd.

Senior Barbara & Fleming Jocelyne, *Organizational Change*, New Delhi, Pearson Education Ltd.

Hewlett Packard: *Culture In Changing Times (2005)* By Michael Beer; Rakesh Khurana; James Weber

Campbell And Bailyn's Boston Office: *Managing The Reorganization (2008)* Byanne Donnellon; Dun Gifford.

*De Layering At Tata Steel (2005)* By Kumar. R

*Steve Jackson Faces Resistance To Change (2011)* By Andrew C. Inkpen; Christine Pearson

**Course Reviewers:**

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