

Faculty of Business Management

Course Syllabus

Course :	Management of Technology (MOT)	
Year :	Year 4 Semester 1 (BBA)	
Period :	45 hours	
Credits :	3	
Lecturer	Chhoun Phearun	
Current Position	Bachelor in Computer Science and Engineering (RUPP-2001) Master of Business Administration, major General Management (BBU-2005) Head of Foundation Year office, Siem Reap Campus. Mobile: 012-593 100 Email : phearun2002@hotmail.com	
Aim & Purpose	This course's purpose are: <div><div>1.</div><div>To stress the role of technology in creating wealth and achieving competitiveness.</div></div> <div><div>2.</div><div>To introduce the main factors leading to the competitiveness of manufacturing and service enterprises in an increasing global marketplace.</div></div> <div><div>3.</div><div>To emphasize the important of considering both speed and the scope of changing in technological development.</div></div> <div><div>4.</div><div>To examine the effect of technological change to society and economy.</div></div> <div><div>5.</div><div>To introduce the process of technological innovation.</div></div> <div><div>6.</div><div>To present the concepts of technology components and capabilities.</div></div> <div><div>7.</div><div>To stress the importance of research & development, and technology transfer in achieving, and maintaining a competitive edge.</div></div> <div><div>8.</div><div>To explore human, social and environmental concerns associated with technological change.</div></div>	
Course Objective	The objective of this course is to examine strategies and specific skills for today's managers to achieve a competitive edge. The new world market will not only be international, but intensely evolving. This course guides students toward understanding the success in dealing with change and progress toward technological development and innovation in business.	
Teaching & Learning Strategies	Lectures will be conducted in a formal manner, presentation, group discussion and exercises. This calls for students to pay attention to class by doing case analysis and participation. Doing case study is the important for student to participate. Reading in advance is a good way for students.	
Assessment Methods	<div><div>Class Participation (Class activities)</div><div>15%</div></div> <div><div>Assignment (Group)</div><div>15%</div></div> <div><div>Mid-term test</div><div>20%</div></div> <div><div>Final test</div><div>50%</div></div> <div><div>Total</div><div>100%</div></div>	

Assignment Type	Team Activity (discussion in the class) Group assignment and presentation
Learning Materials	1-Handout in English & Khmer 2-MOT Cases Study and Further Reading Material
Additional References	1-Management of Technology, Tarek M. Khalil, 2000 2-Managing Today, Stephen P. Robbins, International Edition 3-Global technology trend 4-Handout from Dr. Simon Shum (http://Dr.Shum/MIT/IVE/TY)
Research Web site	http://www.technologyreview.com http://www.TDRI.org.th http://www.bergen.org/technology/whatech.html http://history.acusd.edu/gen/recording/main.htm

Course Schedule

Topic	Period Estimation	Sessions
Chapter 1 Introduction to Management of Technology	7.5 hours	5
Chapter 2 Technology and Global Trend	6.0 hours	4
Chapter 3 Technology and Competitiveness	6.0 hours	4
Chapter 4 Technology Components	6.0 hours	4
Mid Term Test	1.5 hours	1
Chapter 5 Technology Capabilities	6.0 hours	4
Chapter 6 Critical Factors in Managing Technology	6.0 hours	4
Chapter 7 Technology Transfer	6.0 hours	4
Total (Estimation)	45.0 Hours	30

COURSE CONTENT

Chapter 1 Introduction to MOT

- § Chapter Objectives
- § Introduction
- § Definition of Technology
- § The differences between science and technology
- § Why study technology?
- § Application of Technology
- § Technology and business
- § Classification of technology
- § Management definition
- § What is MOT?
 - Define Management of Technology
 - The roles of MOT
- § The World Today
 - Technological Change
 - Change in Scope
 - Changes in Competition
 - Trade Blocs
- § Management of Technology an entrepreneurial perspective.
 - Paper entrepreneurs
 - Product entrepreneurs
- § Conclusion
- § Discuss Questions
- § Reading and Answer Case Study “The world around us”

Chapter 2 Technology and Global Trend

- § Chapter Objectives
- § Significant Global Trends
 - Global change
- § Significant Technology Trends
- § Effects of Technological Changes on Society
 - Effects of Technological Changes on the Economic Growth
 - Effects of Technological Changes on Productivities
 - Effects of Technological Changes on employment
- § Effect of technological Change on the corporate profitability and growth
- § Discuss Questions

Chapter 3 Technology and Competitiveness

- § Chapter Objectives
- § Introduction
- § The Influence of Technology on Competitiveness
 - Cost Advantage
 - Differentiation
- § Porter’s Value chain
- § Five forces model of competition
- § Role of technology in the creation of wealth
- § Concluding Remarks
- § Reading and Answer Case Study “Alliance and technology race”

Introduction to Group Assignment

Chapter 4 Technology Components

- § Chapter Objectives
- § Process Technology
 - The object-embodied component of technology “Technoware”
 - The human-embodied component of technology “Humanware”
 - The institution-embodied component of technology “Ogaware”
 - The Document-embodied component of technology “Inforware”
- § Major critical for assessing technology component
- § Product Technology
 - Product Design inforware (PDI)
 - Product Usage inforware (PUI)
- § Discuss questions and case study

Chapter 5 Technology Capabilities

- § Chapter Objectives
- § Introduction
- § What are the technological Capabilities?
- § A Possible Classification of Technological Capabilities
 - Operative Capability
 - Transaction Capability
 - Innovative Capability
 - Supportive Capability
- § Interrelationships between Technology Components and Technology Capabilities
- § Improving Technological Capabilities
- § Discuss Questions

Chapter 6 Critical Factors in Managing Technology

- § Chapter Objectives
- § Creativity factor
 - Invention
 - Innovation
 - Types of innovation
 - Creativity and innovation
 - Characteristics of creative environment in an organization
 - Bringing innovation to market
 - Technology-price relationship
- § Timing factor
- § Managing change
- § Technology leaders vs followers
 - Advantages of being a leader innovation
 - Disadvantages of being a leader
 - Outcome from innovation process
 - How can innovation leaders sustain their leadership?
 - How can a follower firm do ?
- § Discuss Questions

Chapter 7 Technology Transfer

- § Chapter Objectives
- § TT Definition
- § TT Classifications

- International TT
 - Regional TT
 - Cross-industry or cross-sector TT
 - Interfirm TT
 - Intrafirm TT
 - § Channels of Technology Flow
 - General channels
 - Reverse-engineering channels
 - Planned channels
 - § International Technology Transfer
 - § The Tigers of Asia
 - § Conclusions
 - § Discuss Questions
 - § Reading and Answer Case Study “**Technology Transfer in Taiwan**”
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