

# Institute of International Management

RA53500 Technology Management (科技管理)

Spring 2009 (97 學年度第 2 學期)

The Institute of International Management is dedicated to providing a quality teaching and research environment to provide students with a broad, integrated knowledge of management in preparation for successful careers in business, government or academia.

**General Program Learning Goals** (goals covered by this course are indicated):

●	1	Graduates should be able to communicate effectively verbally and in writing.
●	2	Graduates should solve strategic problems with a creative and innovative approach.
	3	Graduates should demonstrate leadership skills demanded of a person in authority.
●	4	Graduates should think with a global management perspective.
●	5	Graduates should possess the necessary skills and values demanded of a true professional.

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**Office Hours:** 15:00-17:00 Tuesday; 10:00-12:00 Thursday and by appointment.  
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**Class Time:** Wednesday Session: 18:30-21:30  
Thursday Session: 14:10-17:00  
**Course TA:** Nguyen Thi Thu Ngoc  
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## Course Perspective:

This course focuses on the strategic management of technology and innovation in the business environment - both new firms and established firms. The conceptual framework of the course is an evolutionary process perspective on technology strategy and innovation. The fundamental ideas underlying this perspective are:

- 1) that a firm's technology strategy emerges from its technological competencies and capabilities,
- 2) that technology strategy is shaped by external (environmental) and internal (organizational) forces, and
- 3) that the enactment of technology strategy, through the experience a firm generates serves to further develop the firm's technological competencies and capabilities.

This course draws on strategic management, economics, and organization theory for tools to address important challenges faced by managers in firms where technology is changing. This technology may be information, product, process and/or administrative.

## Course Objectives:

To develop an awareness of the range, scope, and complexity of the issues and problems related to the strategic management of technology and innovation, this course is designed:

- To develop an understanding of the "state of the art" of the strategic management of technology and innovation.

- To develop understanding about the process of bringing “newness” into an organization - through internal innovation and/or through external strategic alliances.
- To develop a conceptual framework for assessing and auditing the technology capabilities of a business organization.
- To develop insight concerning the skills necessary to be effective as a general manager in the innovation process and/or alliance building process.
- To offer some practice in defining and working out strategic management problems related to innovation and corporate technology management.

### **Course Outlines:**

- Module 1: Laying the Foundation
  - Unit 1.1 – Management of Technology and Innovation: An Overview
  - Unit 1.2 – Strategy and the Management of Technology and Innovation
- Module 2: Innovation: Internal Strategy
  - Unit 2.1 – Innovation: Planning
  - Unit 2.2 – Internal Innovation: Implementation
  - Unit 2.3 – Innovation: Evaluation and Control
- Module 3: Obtaining Technology: External Strategy
  - Unit 3.1 – Obtaining Technology: Planning
  - Unit 3.2 – Obtaining Technology: Implementation
  - Unit 3.3 – Obtaining Technology: Evaluation and Control
- Module 4: Building Strategic MTI Success
  - Unit 4.1 – Building Capabilities for MTI Success
  - Unit 4.2 – Organizational Learning and Knowledge Management

### **Instruction Materials:**

- Textbook: White, Margaret A. and Bruton, Garry D. (2007). *The Management of Technology and Innovation: A Strategic Approach* (1st ed.). Thomson South-Western.
- Ivey Cases by Ivey Publishing (<http://cases.ivey.uwo.ca/>):
  - Talking About...RFID by Darren Meister and Ken Mark (Case# 9B05E011)
  - Competition and Change in the Hong Kong Mobile Telecom Industry by Tony S. Frost and Nigel Goodwin (Case# 9B05M044)
  - MapQuest by Paul W. Beamish and Kevin K. Boeh (Case# 9B04M044)
  - Swatch and the Global Watch Industry by Allen Morrison and Cyril Bouquet (Case# 9A99M023)
  - Huadun Anti-counterfeit Technology Inc. by June Cotte and Alan (Wenchu) Yang (Case# 9B04M089)
  - GigaNet, Inc. by Paul Croke and David T.A. Wesley (Case# 9B04M039)
  - Redback Networks' Acquisition of Abatis Systems: Enhancing Broadband Access by David W. Conklin and Ken Mark (Case# 9B03M029)
  - Research in Motion: The Acquisition of Slangsoft (A) by Rod E. White and Ken Mark (Case# 9B03M009)
  - Qualcomm in China (A) by Joel West and Justin Tan (Case# 9B01M073)

- Time Warner Inc. and the ORC Patents by Paul W. Beamish and John Adamson (Case# 9B01M059)

### Course Arrangement and Requirement:

- Students are expected to form a group of five (one leader and four members) for pre-class case discussion, homework assignment, and to work on a course project. Each group member should contribute equally to the group. Your final grade in this area will also be based on peer evaluations from your group members.
- Group homework assignment is due one day prior to each class. Group leader should e-mail the homework to TA no later than midnight.
- This course will run mainly in case discussion format. You are expected to be prepared and participate in class discussion. Do not come to class unprepared.
- Study textbook material before class is highly recommended. I will present textbook material to enhance your study in the class. However, most likely, I may not be able to cover all the material in the textbook during course lecture. Your study prior to the class will be much helpful for participation. You are welcome to discuss with me in the class or off the class for all the lectured or non-lectured materials.

### Grading Policy:

- Class attendance and participation      20%    (under normal circumstance, see Other Policies: 2)
- Group Homework Assignments            20%
- Group Case Writing                        20%
- Group Case Leading                        10%
- Group Final Report                         30%

**Class Schedule:** (The schedule is subject to change due to class circumstances)

WEEK	DATE	TOPIC	READINGS (in advance)
1	2/18; 2/19	Introduction and Overview of the Course	
2	2/25; 2/26	<u>Talking About...RFID</u> by Darren Meister and Ken Mark Introduction to MTI	Ivey Case# 9B05E011 Chapter 1
3	3/4; 3/5	<u>Competition and Change in the Hong Kong Mobile Telecom Industry</u> by Tony S. Frost and Nigel Goodwin Strategy and the Management of Technology and Innovation	Ivey Case# 9B05M044 Chapter 2
4	3/11; 3/12	Case project/Research paper proposal (Student Presentation) (Presentation slides due one day prior to the class)	
5	3/18; 3/19	<u>MapQuest</u> by Paul W. Beamish and Kevin K. Boeh Innovation—Planning	Ivey Case# 9B04M044 Chapter 3
6	3/25; 3/26	<u>Swatch and the Global Watch Industry</u> by Allen Morrison and Cyril Bouquet Internal Innovation—Implementation	Ivey Case# 9A99M023 Chapter 4
7	4/1; 4/2	Holiday	

8	4/8; 4/9	<u>Huadun Anti-counterfeit Technology Inc.</u> by June Cotte and Alan (Wenchu) Yang Innovation—Evaluation and Control	Ivey Case# 9B04M089 Chapter 5
9	4/15; 4/16	<u>GigaNet, Inc.</u> by Paul Croke and David T.A. Wesley Obtaining Technology—Planning	Ivey Case# 9B04M039 Chapter 6
10	4/22; 4/23	<u>Redback Networks' Acquisition of Abatis Systems: Enhancing Broadband Access</u> by David W. Conklin and Ken Mark Obtaining Technology—Implementation	Ivey Case# 9B03M029 Chapter 7
11	4/29; 4/30	<u>Research in Motion: The Acquisition of Slangsoft (A)</u> by Rod E. White and Ken Mark Obtaining Technology—Evaluation and Control	Ivey Case# 9B03M009 Chapter 8
12	5/6; 5/7	<u>Qualcomm in China (A)</u> by Joel West and Justin Tan Building Capabilities for MTI Success	Ivey Case# 9B01M073 Chapter 9
13	5/13; 5/14	Time Warner Inc. and the ORC Patents by Paul W. Beamish and John Adamson Organizational Learning and Knowledge Management (Case paper due 5/12; 5/13)	Ivey Case# 9B01M059 Chapter 10
14	5/20; 5/21	Students' Case Leading	TBD
15	5/27; 5/28	Students' Case Leading	TBD
16	6/3; 6/4	Students' Case Leading	TBD
17	6/10; 6/11	Students' Case Leading	TBD
18	6/17; 6/18	Students' Case Leading	TBD
19	6/24; 6/25	Course Project Paper Due	

## Other Policies:

### 1. Assignment and Grading:

- All assignments must be typed not hand-written and must be submitted with a cover page typed on your name and student ID.
- Assignment is due exactly at the prescribed time. **No late assignment is accepted.**
- Any questions or complaints regarding the grading of an assignment or report must be raised **within one week** after the score or the graded assignment is made available (not when you pick it up).
- All assignments and reports should be **your original work/concept**.

### 2. Attendance:

- You must display your name tag in front of the desk for discussion purpose.
- You have to sign the attendance sheet when enter the classroom.
- If you sign for other students or do not sign on the attendance sheet, you will be regarded as “being absent” no matter what evidence you provide to the lecturer afterwards.
- If you come in class late or leave early, your attendance counts a half of the day.
- There is no need for you to ask for apology when you are absent from class.

- Student leave (whether casual or sick leave) exceed one third (1/3) of the total lecture hours in the semester will automatically results FAIL in the final grade.
- 3. Penalty for cheating and plagiarism will be extremely severe. Use your best judgment. If you are not sure about certain activities, consult the instructor. **Standard academic honesty procedure will be followed and active cheating and/or plagiarism automatically results FAIL in the final grade.**
- 4. You are expected to come fully prepared to every class and responsible for everything discussed in class. Note your attendance and participation counts. You may receive a zero for absence or lack of participation.
- 5. No incomplete grade under nearly all situations unless one have sound reason and documented evidence. A student who received an incomplete must have completed or passed a significant portion of the course.
- 6. Pay very careful attention to your e-mail correspondence. It reflects your communication skills. Avoid use non-standard English such as "how r u?" in your e-mail message. In addition, I recommend you put the class number and a brief summary of your question in your e-mail subject. For example,

Subject: RA53500 A question on final report.

- 7. I immediately discard anonymous e-mails.
- 8. The ringing, beeping, buzzing of cell phones and/or watches during class time is extremely rude and disruptive to your fellow students and to the class flow. Please turn all cell phones and watches off or into silent mode prior to the start of class.
- 9. For any disability accommodations needed for the course, please notify the instructor during the first week of the semester.