

COURSE OUTLINE

TR 2202 – Technological Innovation

Note: This course outline is tentative and the details may change.

Session: Semester II, 2014-2015
Modular Credits: 4 MCs
Classroom hours per week: 3
Number of hours of preparation per week: 3 -5
Lecture time: 8AM-11AM or 11AM-2PM, Fridays

LECTURER

Dr. Erin L SCOTT
Office: BIZ1 Mochtar Riady Building #6- 41
Phone: 66013455
Email: elscott@nus.edu.sg
Office Hours: 15:00-16:30 Fridays or by appointment

COURSE OVERVIEW

This course aims to equip students with a strong conceptual foundation for understanding the dynamic process of technological innovation. Students will be introduced to the importance of technological innovation as a driver for value creation and economic growth. The dynamics of technological change will be analyzed through the concepts such as technology life-cycles, dominant design, network externalities, and first-mover advantage. The key technology commercialization processes through which an innovative idea is transformed into a successful product or service in the marketplace will be studied, and the key organizational/management factors and socio-economic/competitive environmental factors that influence the effectiveness of these processes will be highlighted.

Students will be exposed to the challenges in technological innovation, including formulating innovation strategy, arranging collaboration, protecting innovation, and managing innovation team. Technological innovation within existing organizations as well as through new start-ups will be examined. Case studies of real world examples will be used for discussion.

Who should take this course?

This course is designed for undergraduate students, to be taken as part of the ***Minor in Technopreneurship*** program offered by the NUS Business School.

There are no formal prerequisites for this course.

This course is a prerequisite for the *New Venture Creation* course.

COURSE MATERIALS

Text: Schilling, Melissa A. 2012. *Strategic Management of Technological Innovation*. Fourth Edition. McGraw-Hill Irwin.

Additional readings (cases and journal articles) will be made available through IVLE.

ASSESSMENT

1. Attendance (10%)
2. Individual Participation (20%)
3. Group Work, including a group project (40%)
4. Final Exam (30%)

TENTATIVE SCHEDULE

Week	Lecture Topics	Chapters
Week 1	Introduction & Course Overview	1
Week 2	Sources of Innovation	2
Week 3	Types of Innovation / Technology S-Curves	3
Week 4	Standards / Design Dominance	4
Week 5	Entry Timing	5
Week 6 *	Choosing Innovation Projects	7
Recess Week		
Week 7	Defining Strategic Direction	6
Week 8	Exploration-Exploitation	8, 12
Week 9	Protecting Innovation	9
Week 10	Organizing for Innovation	10
Week 11 *	Technological Change and Incumbents	
Week 12	Team Project Presentations	
Week 13	Team Project Presentations	
Reading Week		
Examination Period		

* To be rescheduled due to the public holiday