

The NTU Integrated Course in Innovation and Entrepreneurship

- From the Perspective of the Greater China Region -

Course Syllabus Spring 2015

Course Duration: March 1 – March 11, 2016
Instructors: Dr. Chialin Chen
Dr. Ling-Chieh Kung
Dr. JungYun Han
Dr. Liwei Yang

Course Description

Leading companies today, such as Apple, Amazon, Toyota, and Uber, succeed by making continuous innovation. Through reshaping markets, delivering greater value at a lower cost, reorganizing channel, forming partnerships and strategic alliances, and utilizing big data and business platforms, these companies are able to explore, execute, exploit, and renew innovations on a continuous basis.

Innovation management can include a variety of topics. In this course, we will focus on the most recent trends in eight interrelated areas for innovation management – Strategic Thinking for Innovation, Design Thinking for Innovation, Omni-Channel Strategy and Innovation, Network Economy and Innovation, Platform Strategy for Innovation, Strategic Alliances for Innovation, Big Data for Innovation, and Dynamics of Business Innovation.

The course utilizes lectures, case studies, group exercises, guest speeches, company visits, and a group project to facilitate learning. Through taking this course, students are expected to (1) develop a basic understanding of innovation management and relevant functional fields in business administration; and (2) acquire knowledge and hand-on experience on how to explore, execute, exploit, and renew innovations.

Each student will be assigned to a group to work on a team project and present the work in the last class. In this project, students are expected to integrate what they learn from this course to formulate strategies to take a new product/technology to a market in the greater China region. More detailed information will be provided in the first class.

Course Outline

Class 1: Introduction - Strategic Thinking for Innovation

Instructor: Chialin Chen

Themes:

- Introduction to Innovation and Entrepreneurship
- Strategic Thinking for Continuous Product and Process Innovations
- Description of Team Project: Taking Your Design to the Greater China Region (Cases: Apple, Foxconn, Amazon, Toyota, HTC, Xiaomi)

Class 2: Opportunity Identification for Innovation

Instructor: Chialin Chen

Themes:

- Introduction to Design Thinking
- The Empathize-Define-Ideate-Prototype-Test Process
- New Product Idea Generation and Competitive Analysis (Group Exercises)

Class 3: Omni-Channel Strategy and Innovation

Instructor: Chialin Chen/Ling-Chieh Kung

Themes:

- E-Commerce and Omni-Channel Strategy
- Pull-Based Supply Chains
- Agility and Lean in Omni-Channel Supply Chain Management (Cases: Alibaba/Taobao, Amazon, Toyota)

Class 4: Network Economy and Innovation

Instructor: Ling-Chieh Kung

Themes:

- The Direct and Indirect Network Effects.
- Switching Costs and Strategic Lock-In
- Subsidies and Multi-Sided Markets (Cases: Amazon, Facebook, Uber)

Class 5: Platform Strategy for Innovation

Instructor: Ling-Chieh Kung

Themes:

- Designing Business Platform
- Governing Business Platform
- Pricing Business Platform (Cases: Google, Sony, eBay)

Class 6: Strategic Alliances for Innovation

Instructor: JungYun Han

Themes:

- Developing Alliance Strategy for Innovation
- Designing Alliance Portfolio Strategy
- Cross-Board Alliances (Cases: Samsung vs. Sony, Fuji-Xerox Alliances, HP-CISCO Alliances)

Class 7: Big Data for Innovation

Instructor: Liwei Yang

Themes:

- Search Engine Platform
- Social Media Platform
- Big Data Platform for Innovation (Cases: Google, Line, WeChat)

Class 8: Course Wrap-Up: The Dynamics of Innovation

Instructor: Chialin Chen

Themes:

- Dynamics of Technological Innovation
- Dominant Designs and Technology Cycles
- Course Summary
- Project Presentations: Taking Your Design to the Greater China Region