COURSE DESCRIPTION

This course focuses on the management of innovation and technology in organizations. It surveys theory and research on innovation as outcome (product, service, technology, practice) and on the process of generation, adoption, and implementation of innovation in organizations.

Through readings, presentations, and class discussion the following types of questions will be examined:

- What is innovation and how does it differ from related concepts such as creativity, invention, technology, and change?
- How do innovations develop over time from ideas to successful outcomes?
- What factors will influence successful or unsuccessful development, commercialization, diffusion, adoption, and implementation of innovation?
- What are types of innovation and in what ways they differ? How each innovation type could contribute of organizational conduct and outcome?
- What are innovation attributes and how each would affect its adoption? How do the attributes differ among innovation types?
- Why are some organizations more successful in developing or implementing innovation than others? What are the characteristics of innovative organizations?
- What managerial processes and organizational systems facilitate innovation process and outcome? What roles organizational leaders could play? What roles organizational members could play?
- What environmental and institutional forces affect innovation in organization? What innovation strategies help organizations succeed in uncertain environments and competitive markets? How organizations yield in or resist to institutional forces in adopting innovation?
- What are the positive or negative consequences of innovation for organizational effectiveness and continued success? For employee development and growth? And for the well being of the larger social system and natural environment?
- What are similarities and differences between innovation performance and firm performance? How can innovation continually influence firm performance over time?
- What are conceptual and methodological issues in the study of innovation in organization?

COURSE MATERIALS

Recommended Readings

This is an introductory undergraduate/MBA level textbook. I recommend it for the students who have not had any prior course on technology and innovation management at the undergraduate or master level.


The first edition of this book was published in 1962. Although the book focuses on the diffusion of innovation, I recommend it as a necessary reading for the students who would like to conduct research on innovation in organization.

COURSE REQUIREMENTS

**Participation (20%)**

You are expected to read the required weekly assignments, prepare questions/comments for each reading, and come to class ready to discuss the week’s readings.

You will be assigned to prepare a 1-2 page summary of the central thesis and contributions of an article, distribute it to class members, and lead the discussion of that article in class. In your summary, as much as possible link the focal article with the other readings of the week.

Your contributions in class throughout the semester to your classmates’ learning will guide the participation grade.

**Mid-Term Project (20%)**

The purpose of the mid-term paper is to: (1) allow you to examine and learn about a topic on innovation that is of interest to you; (2) research the topic using required readings and some sources beyond them (see below); and (3) share your learning with the members of the class. Alternatively, you can select an academic book related to management of innovation and technology, review it, and write a Book Review in the style of an academic journal. Either way, consult with me about your choice of the topic before September 30th.

The mid-term paper is due on October 18, 2012. It has usually been about 6-8 pages (typed, double-spaced, 1” margin on all sides). In addition, prepare a 6-8 minute presentation of your mid-term project and present it in class on October 18th. Hard copies of your presentation slides (6 slides per page) should be distributed to class members.

**Term Project (60%)**

The main assignment of the course is writing a research proposal for an empirical study of a topic related to the management of innovation and technology. The topic can be the same as that of the mid-term project, or you may select a new topic. Please submit the title of the intended project and a 1-2 page synopsis of it for my approval no later than October 25, 2012.

The term project has usually been about 20 pages (typed, double-spaced). It is due on December 6, 2012. It should include the following parts:

(1) Significance and potential theoretical and empirical contributions of the proposed research;
(2) 2-4 research questions;
(3) An in-depth literature review of the selected topic;
(4) 2-4 hypotheses; and
(5) Methodology for data collection and analysis, including sampling, operationalization of variables, and estimation technique.

Please note that you only write a proposal for conducting research. You will neither collect nor analyze data for this assignment. In writing the term project, please follow the style guide of a selected management journal (AMJ, SMJ, JMS), and ensure that all ideas and passages that taken from others’ work are properly cited and quoted according to academic standards.

Each student shall also make a 15-minute presentation of his/her term project on November 29th or December 6th. Hard copies of the presentation slides (6 slides per page) should be distributed to class members.

ACADEMIC INTEGRITY

All students are expected to know, understand and live up to the standards of Rutgers University’s Academic Integrity. See http://academicintegrity.rutgers.edu/integrity.shtml

COURSE OUTLINE

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REQUIRED READINGS

Week 1 [9/6]: Innovation in Organization

Week 2 [9/13]: Innovation Process and Type – I

Week 3 [9/20] Innovation Process and Type – II

Week 4 [9/27]: Individual Innovation and Creativity


**Week 5 [10/4]: Organizational Leadership and Innovation**


**Week 6 [10/11]: Organizational Learning and Innovation**


**Week 7 [10/18]: Mid-Term Paper Presentation**

**Week 8 [10/25]: Knowledge, Capability, and Innovation**


**Week 9 [11/1]: Organization Design and Innovation**


**Week 10 [11/8]: Evolutionary Models of Innovation**


**Week 11 [11/15]: Measurement of Innovation**


**Week 12 [Tues. 11/20]: Innovation and Organizational Performance**


**Weeks 13 [11/29]: Term Project Presentation – I**

**Weeks 14 [12/6]: Term Project Presentation – II**

**EXAMPLES OF BOOKS**


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**EXAMPLES OF JOURNALS**

- *Academy of Management Journal*
- *Academy of Management Review*
- *Administrative Science Quarterly*
- *British Journal of Management*
- *Creativity and Innovation Management*
- *Creativity Research Journal*
- *IEEE Transactions on Engineering Management*
- *International Journal of Technology Management*
- *Journal of Business Venturing*
- *Journal of Engineering and Technology Management*
- *Journal of High Technology Management Research*
- *Journal of International Business Studies*
- *Journal of Management Studies*

- *Journal of Product Innovation Management*
- *Management Science*
- *MIS Quarterly*
- *Omega*
- *Organization Science*
- *Organization Studies*
- *R&D Management*
- *Research-Technology Management*
- *Research Policy*
- *Strategic Management Journal*
- *Sloan Management Review*
- *Technological Analysis and Strategic Management*
- *Technology Forecasting and Social Change Technology Review*
- *Technology Studies*
- *Technovation*