DEPARTMENT OF INFORMATION SYSTEMS & TECHNOLOGY MANAGEMENT

Syllabus-Fall 2016
(v. 10 Sep)

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COURSE NUMBER: ISTM 6224 (3 grad credits)

COURSE TITLE: Management of Technology and Innovation (Hybrid mode)

COURSE DESCRIPTION: This course provides an introduction to technology innovation as practiced in both corporations and public-sector organizations. Topics include: business, organizational, technological, economic, and political factors that influence the development of new technical products, processes and services. Competitiveness of firms in global markets. Emerging technologies and the birth of new industries. Management concepts and practices useful in enhancing corporate innovation. Influence of corporate strategy, culture, architecture, leadership and execution in achieving sustainable performance as an innovator organization.

This course is designed to be useful for students from the GW MSIST and MBA programs and other School of Business graduate programs, and has been attended by graduate students from every GW school, many Consortium Schools, and well-prepared undergraduate seniors. No technology background is necessary.

HYBRID MODE: In class sessions are held in the scheduled classroom during 7:10-9:10 pm on alternating Mondays (one exception). Regular attendance is expected. Alternating sessions are studied online beginning at the regular class time on Mondays and closing an hour before the next scheduled in class session. Study of online sessions is in other respects self-paced and with flexible timing. Online sessions involve narrated slide sets available on Blackboard and graded brief written online discussions of related topics. Online sessions must be studied and online discussions completed prior to the next in-class session. The Topical Outline that follows provides the schedule of specific sessions to be held in class or online (once published during the first week of the term).

PREREQUISITES: None.

INSTRUCTOR: Professor Richard G. Donnelly
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eText ISBN: 9781259737817, 1259737810

**COURSE OBJECTIVES:** ISTM 6224 has a broad set of paired objectives: to promote more effective innovation management by technologists and scientists; and to increase the awareness of issues of technological innovation for non-technical managers.

At the conclusion of the course the student will be able to:
- Demonstrate a working knowledge of the basic principles of technology innovation.
- Employ management best-practices useful in accomplishing technology innovation.
- Recognize new opportunities for introducing innovation in wide-ranging organizational settings.
- Critically assess approaches to innovation taken within ones own organization and in competitor organizations.
- Better understand competitive advantage in technology markets and use this to the advantage of ones own firm.
- More effectively lead technology projects and science and technology professional staff.
- Contribute to the creation of an internal environment more supportive of innovation.
- Understand the influence of national policy on the practice of innovation in the U.S. and internationally.

**METHOD OF INSTRUCTION:** Lecture, discussion, case study, individual and group exercises.

**READINGS AND HOMEWORK:**
Readings and homework are assigned for preparation outside of class, and thoughtful commentary will be expected in classroom discussion.

**ASSIGNMENTS AND GRADING:**
1. Briefing papers and cases (3-4)  30 %
2. Quizzes (3)                        60 %
3. Participation/Custimized Learning 10 %
4. Exams                           100 %

**BRIEFING PAPERS:** Briefing papers will be submitted *electronically through Blackboard* (see below). Briefing papers must be the student's original work written exclusively for this course. Topics will be assigned from time-to-time during the course. Exams may be submitted through Blackboard or may be delivered as hardcopy.

**BLACKBOARD:** This course will employ Blackboard for several purposes. All work assignments will be submitted electronically through Blackboard. There will be a folder for each assignment to which students upload their submitted work. The required format for submissions is a Word document. A document in pdf format may be submitted to the instructor as a supplement to the electronically submitted Word file, if graphics or other formatting problems arise. In this case, a hardcopy original may also be submitted directly to the instructor to display color or complex graphics.

All course handouts, with the exception of lecture slides, will be available through Blackboard. Most handout files will be downloadable in pdf format. Lecture slides are only available as hardcopy or by fax. Arrange to pick up a set that you have missed. Readings and assignments are due on the schedule given in this
syllabus or a more recent update. The latest schedule, reflecting any changes that have been made, will always be that given in Blackboard. If handouts were not picked up in class, students are expected to download and prepare readings and assignments prior to the class at which they are due.

Exams are taken on Blackboard. The exams are opened at 6 pm on the day indicated in the Syllabus and online submittal of the exams is due 6 hours later. More detail on the exams will be provided subsequently.

All email submitted to the instructor regarding this course must be sent to rgd@gwu.edu and have the phrase “ISTM 6224” in the subject line.

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**Topic 1:** Introduction and overview.

**Topic 2:** Innovation in technical markets.

**Topic 3:** Environment for technology innovation.

**Topic 4:** Performance of technology innovator firms.

**Quiz 1:** Quiz 1 on Topics 1-4.

**Topic 5:** Strategy for technology innovation.

**Topic 6:** Strategy for product innovation.

**Topic 7:** Culture for technology innovation.

**Topic 8:** Culture for technical creativity.

**Quiz 2:** Quiz 2 on Topics 5-8.

**Topic 9:** Architecture: Setting innovation policy.

**Topic 10:** Architecture: Structure Options.

**Topic 11:** Leading: General management in innovation firms.

**Topic 12:** Leading: Managing knowledge workers.
Topic 13: Executing: Managing innovation projects.


Quiz 3: Quiz 3 on Topics 9-14.

Customized Learning Assignments:

Off-site lecture or virtual lecture attendance totaling 2 hrs contact time is required