Wright State University

CORE Scholar

Winter 2006

CEG 490/690-01: Technology-Based Ventures

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ISE/CEG 490 & CEG/HFE 690 Technology-Based Ventures
Winter 2006

Class Time: Monday and Wednesday, 4:10pm ~ 5:50pm, Russ 155

Instructors: Dr. Forouzan Golshani & Dr. S. Narayanan

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Overview: This class will train students on methods to develop breakthrough products with an entrepreneurial perspective and managerial outlook. Topics include advanced product development, protecting intellectual property, fostering strategic and creative thinking, effectively leading technology-driven teams.

Prerequisites: Senior standing or permission of instructor.

Textbook: Creating Breakthrough Products: Innovation from Product Planning to Program Approval, Jonathan Cagan and Craig M. Vogel, Prentice Hall, 2002.

Additional References (from):

"Build a Strong Business Plan, Section by Section" by Bruce Kohl.
    It can be found at: http://www2.inc.com/writing_a_business_plan/guides/20660.html

John Barlow's work entitled "The Economy of Ideas". It can be found at:
    http://www.wired.com/wired/archive/2.03/economy.ideas_pr.html

"An Intellectual Property Law Primer For Multimedia And Web Developers" by J. Dianne Brinson and Mark F. Radcliffe.
    It can be found at: http://www.eff.org/CAF/law/ip-primer

"Welcome to the Post-DotCom Era" by David Howard
    netWorker, Volume 5, Number 2 (2001)

The S-curve, A new forecasting tool, from Richard Foster "Innovation: The Attacker's Advantage." Summit Books, 1986. pp. 87 – 112.

Selected Chapters (TBD) from: Allan Afuah (2003). Innovation Management. 2nd Edition. Oxford University Press.

Course Topics:

- New Product Development
- User-Centered Integrated Product Development
- Creating Breakthrough Products in High-Technology Enterprises

- Fostering Strategic and Creative Thinking
- Information Life Cycle: acquisition and generation, protection, marketing, sharing, presentation, communication, analysis and integration, management, discard
- Intellectual Property Rights, combating criminal misuse, social and ethical issues
- E-services: business models, agreements and legal contracts, monitoring and management, rating models, standards, technologies and infrastructures for e-commerce, web portals and application servers
- Entrepreneurship: Business plans, Business Models, Project management
- Case Studies: Healthcare, Engineering/Manufacturing, Legal, Financial, Digital Libraries
- Projects

Grading Scheme

- Readings/Class Presentations   - 20%
- Exam   - 20%
- Final project   - 60%

Grading: Students will be graded on the basis of their performance in class presentations [20%], mid-term exam [20%], and final project [60%].

Class Presentation (20% of the grade): On a specific topic, in-class students in a pre-assigned group will be required to present an overview on their topic and lead the discussion. The students will be required to submit their presentation and must use systematic means to encourage class participation (e.g. through the use of problem solving, hands-on exercises, etc.).

Mid Term Exam (20% of the grade): Students will be required to respond to a set of questions on topics related to technology-based ventures and will be a given about a week to respond. This exam is a take-home exam and is designed to examine the student's abilities to comprehend course material and its relevance to realistic problem solving.

Final Project (60% of the grade): Students will work on a final project in groups where they are required to select a topic from a set assigned by the instructors. The students will have about five weeks to complete the project and may require a set of the following: literature review, market research, business plan generation, and assessment.

Tentative Schedule

Dates	Topic	Coordinator	References	Comments
Jan. 4	Course Overview	Dr. Narayanan	Syllabus	Assign: Read Ch. 1 – 3 from text
Jan. 9	What drives product development? The value quadrant	Dr. Narayanan	Text	Assign: Read Chapter 4.
Jan. 11	Brand Strategy & Product Strategy	Dr. Narayanan	Text	Assign: Read for the guest lecture (TBD)
Jan. 18	Guest Lecture on the "Economics of innovation"	Dr. Premus (Business	TBD	Assign Reading for Information

		College)		Life Cycle
Jan. 23	Information Life Cycle	Dr. Golshani		
Jan. 25	Intellectual Property Protection	Dr. Golshani		
Jan. 30	E-services: business models, agreements and legal contracts, monitoring and management	Dr. Golshani		
Feb 1	E-services: technologies and infrastructures for e-commerce, web portals and application servers	Dr. Golshani		Assign: Give mid-term exam
Feb. 6	Integrated New Product Development Techniques	Dr. Narayanan		
Feb. 8	Integrated New Product Development Techniques (contd.)	Dr. Narayanan		Mid Term Exam Due, Final Project Assigned
Feb. 13	Fostering Strategic and Creative Thinking	Dr. Narayanan		
Feb. 15	S-Curves and their use	Student Groups 1 & 2 Presentation		
Feb. 20	Business Plans – Part I	Dr. Golshani		
Feb. 22	Business Plans – Part II	Dr. Golshani		
Feb. 27	Final Projects Status Update	Students		
Mar. 1	Innovation Management	Student Groups 3 & 4 Presentation		
Mar. 6	Case Studies: Healthcare, Engineering/Manufacturing	Dr. Golshani		
Mar. 8	Case Studies: Financial, Digital Libraries	Dr. Golshani		
Mar. 13	Open Issues & Wrap Up	Drs. FG & SN		
Mar 14-18	Exam Week: Final Project Presentations, Report Due	Dr. Narayanan		