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ILLINOIS INSTITUTE OF THE TECHNOLOGY

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BUS 465/INTM 477

ENTREPRENEURSHIP IN INDUSTRY  
SPRING 2009 – TUESDAYS 6:25- 9:05

CLASS AVAILABLE LIVE, IITV AND WEB

**Instructors:**

Dr. David Pistrui, Coleman Foundation Chair in Entrepreneurship  
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**Course Background:**

Entrepreneurship is a critical requirement for the economic well being of the USA. In response to this, a variety of courses and other activities are being undertaken on college campuses. The large majority of these activities relate to starting new companies based on technologies breakthrough or new types of products or services.

Such entrepreneurship is important and results in significant new products and services. At the same time most of university graduates will never start a new company and for that matter few will end up working within a start-up operation. Most university graduates will end up working within existing organizations. Recognizing this, the Illinois Institute of Technology has developed and is offering this course.

**Course Description:**

Industrial Entrepreneurship (INDENT) focuses upon the innovative activities within existing organizations. Industry for the purposes of this course considers all of the ongoing activities that represent the on-going base of the economy. This includes manufacturing, supply chain (logistics including transportation, warehouse, distribution, purchasing, import, export, etc) and facilities (construction, renovation, and maintained of building, equipment and faculties).

Expertise in INDENT must start with a detailed understanding of the industry involved. – Innovations cannot even be considered without a deep knowledge and understanding of the activities as they presently exists. Having inside knowledge and experience is critical to have the innovation accepted and implemented. An innovation within an industrial enterprise requires involvement of all of the key players within the organization – this includes worker, peers, and superiors.

The objective of this course is to provide students with a clear understanding of industry along with an introduction to the concepts of innovation and entrepreneurship. The introduction of entrepreneurship within industry depends upon working within the existing organization. INDENT can be achieved only so long as it is integrated into the existing organizations. INDENT may involve new products or businesses, but normally INDENT will be significant improvement with existing systems.

### **Course Overview**

This course will introduce the students to the wide range of industrial activities. Within that context students will be encouraged to consider techniques for introducing major innovations, i.e. INDENT. The innovations can be based on any application of technology that is new to the organization involved. Technology in this context can involve: technology, technical system, social systems and business systems. The technology involved will be new to the organization involved but may be well established in other organizations.

The students are expected to apply entrepreneurial approaches to internal activities within any industrial activities. The program will include lectures, but the primary teaching approach will be based on having the students develop at example of INDENT. The challenge will be to apply established entrepreneurial systems to activities within existing industrial organization.

This course is available to undergraduate students within any department at IIT. The target audiences include Engineering students, Business Students and Industrial Technology and Management Students. Since this course is offered as a 400-level course it can also be taken by graduate students (graduate students are allowed to take four 400-level courses). Based on the first three offering of this class, all of the target students can benefit from the course – it seems particular useful for students who have industrial experience. Since graduate students have more experience, they are excellent candidates for this course.

The course will place emphasis on the systems approach to INDENT – the impact on all facets of the operation has to be considered. The focus is on activities that are ongoing within existing organizations. The students will be expected to consider the relationship between innovation and operational efficiency.

The course strives to provide practical insight along with developing tools and concepts that can be applied to support the development of sustained competitive advantage in existing enterprises using INDENT.

## **Course Objectives**

The course objective will include the following:

1. Critically examine distinct views of innovation as they apply to industrial innovation.
2. Explain how industrial innovation impacts can be applied for existing industrial activities.
3. Formulate maps and visual depictions and to operationally and manage technology innovation and concept development.
4. Develop a more open mind and greater receptiveness to innovation in the broadest sense.
5. To develop an awareness of the range, cope and complexity of the issues related to innovation within an industrial setting.
6. To develop a frameworks for developing a case study or business plan for an INDENT.
7. Develop a conceptual framework and systems approach for assessing the innovative capacities of industrial organizations and activities.
8. To acquire knowledge of existing industries and the consider innovation that may significant improve the performance within those industries.
9. To develop the skills and knowledge useful in appraising and managing innovation in industrial enterprises
10. Develop communication and decision making skill with particular emphasis on core competencies needed to complete in a rapidly changing dynamic business environment.

## **Anchor Values**

Industry is the foundation upon which all of civilization is based. New products and services influence what reaches the customers (individuals, companies and governments) but the fundamental activities within industry normally changes slowly – typically over several decades. Almost all studies of entrepreneurship focus on developing significantly different products and services. Such “breakout ideas” typically are the major emphasis of those studying entrepreneurship. For this reason almost all education on entrepreneurship is based on either starting new companies and/or developing breakout products or services within existing companies.

Industrial Entrepreneurship (INDENT) is aimed at encouraging innovation and entrepreneurship with all types of existing industrial operations. Innovations can be based on technology, technical systems, social systems or business systems. Innovation in this context can be based on introducing anything that is new to the organization under consideration.

INDENT is normally based on established knowledge so rarely requires R&D. Costs are rarely an issue since a meaningful INDENT can be rationally justified based on cost saving. For that matter some INDENTs require little or no direct investment of money. Since INDENTs are intended to introduce major innovation within an ongoing organization, selling an INDENT requires getting buy-in by supervisor, peers, and subordinates. The promoter of an INDENT has of necessity to work with everyone who could conceivably be involved by the change. An interesting observation is that one does not have to be the “boss” in order to introduce innovation into an organization. Those at any level within the operations can introduce meaningful improvements.

### **Conduct of Course**

- (1) The course will be offered as a live class on the main campus. Remote students can take the course in real time at any one of the 40+ IITV sites within Chicagoland or via delayed broadcast on the web, which is posted 24 hours after the live class.
- (2) Class participation is required for all students.. Participation will be measured by timely submittal of all weekly assignments.
- (3) All course material and assignment will be posted on Blackboard prior to each class.
- (4) Each student will be required to conduct an Opportunity Assessment (OPASS) for an innovation appropriate to an industrial setting. The students will be submit a report and make a presentation on their OPASS. Remote students may submit a DVD or video instead of coming to class for their presentation. Another alternate is to submit viewgraphs which can be shown with the student giving the presentation via telephone.
- (5) There will be three invited speakers during the semester – for each the assignment will be to write a report on their lectures.
- (6) All assignments should be submitted in a timely fashion by posting them to the digital drop box on Blackboard. Points will be deducting points for late submittals that are not approved.
- (7) This syllabus is a guideline and may be revised during the semester.

### **Required Reading**

All material (written material and videos) posted on Blackboard are should be studied prior to the class. Material will be posted at least one week in advance of the scheduled class. It is suggest that written material be printed out and collected in a notebook for future reference.

All students will be provided with a complementary copy of the text. References to Chapter in Syllabus refer to this book.

Tijunelis, D., and McKee, K., (2005) *Managing Technology Operations: An Executive Toolbox*, 2<sup>nd</sup> Edition, Manufacturing Productivity Center, LTD, Chicago, Illinois ISBN 0-9746354-0-5

## Grading Criteria

The grading will be based on 100 possible points with point assigned as:  
40 points for weekly assignment, i.e. 4 points per week  
30 points for OPASS report  
20 points for OPASS presentation  
10 points for final examination

INTM 477 and BUS 465 are the same course and will be taught by both instructors.  
Grading for students registered for BUS 465 will be done by Dr. Pistrucci and grading for students registered for INTM 477 will be done by Dr. McKee.

All assignment should be submitted with both the students name and ID number on the first page.

## Course Schedule

Week	Date	Topic	Instructor/s
1	Jan 20	What is Industry? What is Entrepreneurship? Plans for semester Opportunity Assessment (OPASS)	KM DP KM DP
2	Jan 27	Industry – an Overview High Performance Organizations Chapters 1 & 2 Video of Elliot Goldman	KM
3	Feb 3	KEEN Speaker – Report Writing	DP/KM
4	Feb 10	Introduction to Tools for Evaluating OPASSs	DP
5	Feb 17	Industrial Operations & Organization Chapter 3 Video of Joe Arvin	KM
6	Feb 24	Balance Score Card, SWOT, etc Video of Joel Goldberg	DP
7	Mar 3	KEEN Speaker – Presentations	DP/KM

8	Mar 10	Mapping the Innovation Strategy Innovation Ecosystems Video of Albert Miller	DP
	Mar 17	Spring Break – have fun	
9	Mar 24	Resource Management in Industry Video of George Wendt	KM
10	March 31	The Entrepreneur in an Industrial Setting Chapter 8 & 9	KM
11	Apr 7	Problem Statements for OPASS 3 page minimum	DP
12	Apr 14	KEEN Speaker and Discussion	DP/KM
13	April 21	OPASS Presentations	DP/KM
14	Apr 28	OPASS Presentations	DP/KM
15	May 5	OPASS Presentations	DP/KM
16	May 12	Overall Review and Final Examination	DP/KM