MIS301H – Introduction to Information Technology Management

Spring 2011

Unique Numbers: 03695, 03700 and 03705
Class room: CBA 4.330/4.324

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Course Web page: Login to Blackboard

Course Objectives

Information Technology (IT) has transformed all aspects of business and everyday life. New IT investments continue to be staggering. Worldwide over $2.5 trillion is invested on IT and in the U.S. over 50% of capital expenditures are related to IT. It has triggered new forms of organizations and business process innovation, and impacted organizational structure, culture, and politics, decision making, and society has a whole. IT is also transforming how physical products are designed, how services are bundled with products, and how individuals interact with businesses and other individuals. There is a silent transformation of physical products embedding more and more IT to improve experience and performance. Further, the ubiquity and pervasiveness of IT are expanding global trade and changing how and where work is performed. Thus, it is imperative that future managers must have a broader understand of IT ecosystem, working knowledge of modern IT, practical experience in its use, and management perspectives on its utilization in organizations.

The class will focus the three broad issues: (a) Strategic Impacts of IT (20%); (b) IT at the intersection of functional areas (40%); and (c) IT core skills (40%). Note that IT core skills and IT at the intersection will be discussed in the context of business strategy. The class is structured as follows:

Strategic Issues:

The first quarter will focus on broader issues related to strategic issues resulting from IT, and the IT ecosystem.

1. **Strategic issues**: Here we will explore how IT is changing industry structure due to product digitization, product IT enrichment, and product/service substitution. New issues emerge as more and more physical products incorporate IT. We will explore various issues using cases.

2. **Software, Hardware and Communication Ecosystem**: We will explore how the IT sector is structured and what are some fundamental characteristics and industry dynamics of the different layers of the software and hardware ecosystem. We will investigate the role of network externalities, standards, open source movement, and other competitive dynamics using contemporary examples. We will also investigate how the communication (voice, data and video) industry is evolving and the impact of convergence on equipment makers and service providers. We will also explore IT adoption issues.

3. **Emerging issues**: There are fundamental changes in consumer preferences. Virtual communities (VC) are utilized extensively to understand these preferences. This section will explore the role of VC in the emerging **experience** economy.

IT-Skills:

1. **Introduction to databases**: Here you will learn high-level database design principles, and structured query language and query by example (visual querying). This will give you a working knowledge to manage, retrieve and manipulate data.

2. **Introduction to data mining**: You will understand various methods to extract meaningful knowledge from data using data mining methods. We will use Excel add-on tool for learning data mining methods.

3. **The Internet workings & WWW**: You will become familiar with how the Internet works. You will become proficient in developing personalized home/website and have a thorough understanding of the infrastructure and emerging standards.

4. **Virtual collaborative tools:** You will develop skills in using virtual collaborative tools**.**

5. **Excel computing skills (e.g., ROI)**: This will provide sufficient working knowledge for decision-making using Excel and developing return on investment models.

6. **New technologies**: You will learn how Peer-to-Peer, Utility, and Grid computing technologies work.

IT at the Intersection:

The second half of the class will focus on the use of IT in improving supply chain and customer relationship, and managing change (change management, justifying IT investments, global sourcing)

1. **Role of IT in supply chain management**: Using cases we will explore how IT can transform supply chain. We will particularly focus on the need to recognize supply chain principles in enabling change, rather than IT functionalities. In doing so, we will explore emerging IT-based (e.g., vendor managed inventory and RFID) process management.

2. **Role of IT in customer relationship management**: We will study how IT can be effectively used in understanding and acquiring customer preference/knowledge. We will explore emerging methods to extract hidden knowledge from databases. We will explore the role of recommendations systems and online feedback mechanisms on consumer behavior.

3. **IT implementation**: issues in implementing IT projects – change management issues (using a simple case)

4. **Global sourcing**: No study in IT is complete without understanding global sourcing of IT and IT-enabled services (i.e., business process outsourcing). We will study what processes are desirable to insource or outsource and when to keep those domestic vis-à-vis offshore. We will study risk assessment and management.

5. **Developing business value of IT** – Develop ROI models using Excel.

Required Material

1. Reading packet is available at Speedway copy center in the Dobie Mall.
2. Additional material will be provided in class and posted on the Blackboard

NOTE: I have given for photocopying only copyrighted material like Harvard Business Review articles, Harvard cases and large documents. Articles available in public domain and free to access will be made available with direct links on the Blackboard.

Grading

Your course grade will be based on the following point distribution:

	Date	**Weight**
Class participation, attendance, and short case write-ups		8%
Assignments – Excel modeling skills (4) & others (3)		19%
Group project (1)		8%
Mid-semester Exam		35%
Final Exam	TBA	30%

The letter grade will be based on a curve. The grade distribution and expected class GPA average will be according to BHP guidance (Guideline for class average GPA is between 3.5 and 3.6). The bottom 5-10% of the class may receive a grade below B.

A grade of X (incomplete) is very uncommon and will be given only for very unusual circumstances as determined by the professor (e.g., medical emergencies for you or your immediate family members that occur after the official drop date). You are required to provide sufficient evidence of the problem and notify your professor as soon as it occurs.

Class Participation

It is important for you to come prepared for class and actively participate. Students' collective knowledge and experience add to the learning experience. It is everyone's job to keep the discussion productive and moving forward. **Students will be cold called!** Therefore, it is in your best interest to come prepared for each class and to actively participate. In evaluating your class participation grade, I will take the following into consideration:

- useful arguments expressed coherently and succinctly
- good analysis supported by case facts or your own experience
- constructive disagreement
- readiness to contribute upon called

I expect that students to arrive on time to class. Coming in late and leaving during class time distract class proceedings.

Excel Training

If you have no background in Excel I would strongly urge you to attend one of these two tutorials. Either myself or TA will offer this Excel tutorial class. You will get enough skills to complete the Excel assignments. Please note that class time will not be used to teach you basics of Excel. You are expected to learn on your own. However, those who want some basics to get started I urge you to attend one of the following sessions (if necessary we can hold one more session):

1. **TBA**

No LAPTOP Policy

Based on overwhelming feedback from previous students, the **use of laptops is not allowed** in this class. This is a simple rule; please respect it. I recognize some students prefer to take notes electronically on PPT slides. However, there is no way of controlling students from checking email/stocks, using IM, and surfing the web once a laptop is allowed. The quality of discussion and the flow will be affected severely. I will make PPT slides available on the Blackboard in time for you to bring copies to class, or will make PPT copies available in class.

Please make sure you keep Cellphones, Pagers, iPods, and other devices switched off during class time. However, **feel free to video-tape or audio record my lectures (and give me a copy so I know how I am doing ☺)**.

Assignments, Case Write-ups, and Group Projects

Class work comprises of short individual IT-skill assignments, and significant individual assignments and group project. Short assignments will be used to emphasize Excel modeling skills useful for your career. There will be three significant assignments during the semester. The three assignments are on databases, data mining, and return on investments using Excel. These assignments will test your understanding of the concepts and develop significant level of expertise in using tools. There will be a group project that is due at the end of the semester. The details will be discussed in class.

Exams

There will be a mid-semester exam (**March 8 in the evening**) and a final (TBA). On these exams**, you will be responsible for the material presented in class,** in the reading packet, and any required readings distributed in class/or on Blackboard. Questions on the exam may be multiple choice, true/false with justification, or short answer types. Any appeals about grades should be emailed to me or the TA for your cohort **within a week** after the exam or project has been returned to you.

Students with Disabilities

The University of Texas at Austin provides upon request appropriate academic accommodations for qualified students with disabilities. Any student with a documented disability (physical or cognitive) who requires academic accommodations should contact the Services for Students with Disabilities area of the Office of the Dean of Students at 471-6259 (voice) or 471-4641 (TTY for users who are deaf or hard of hearing) as soon as possible to request an official letter outlining authorized accommodations.

Scholastic Dishonesty

Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from the University. Please refer to the Student Judicial Services Website at http://www.utexas.edu/depts/dos/ or the General Information Catalog to access the official University policies and procedures on scholastic dishonesty. In this class, all cases must be done individually. You are free to seek help from the professor or the TA.

Instructions for Mac Users

Some of the assignments involving databases and Excel add-on may require you to use Windows. There is Access database for Mac OS. You can address this issue in two ways:

a) Install Windows XP or other versions on your Mac. You can run both Mac OS and Windows using Bootcamp, VMWare Fusion or Parallels. Bootcamp comes with your Mac but in order to switch from Mac OS to Windows you may have to reboot. VMWare or Parallels will let you run both OSs at the same time and switch instantaneously.
b) Or, you can choose to download Windows Remote Desktop Connection for Mac and use any of the programs without installing Windows OS. Check out the following link for information.

   http://www.utexas.edu/its/wts/answers/rdc-macintosh.php .

Tentative Schedule (RP → Reading Packet; BB → Blackboard)

No.	Date	Topic	Readings
1	1/18	**Introduction: Class Overview**	• Please see BB for details **Short (Excel) Assignment 1 handed out**
2	1/20	**IT-enabled Transformation**	• IT-Enabled Transformation, P. Konana 2010(BB) • Please see additional articles on BB
3	1/25	**IT Evolution and Business Implications**	• IT-Enabled Transformation, Konana 2010 • Please see BB for more details **Due: Short (Excel) Assignment 1** **Short (Excel) Assignment 2 handed out**
4	1/27	**Disruptive Innovations & Implications** **Case: Kodak**	• Kodak and the Digital Revolution (HBS case) • See BB for more details
5	2/1	**Software Ecosystem** **Case: Microsoft**	• Microsoft in 2005 – HBS case (RP) **Due: Short Assignment 2** **Short (Excel) Assignment 3 handed out**
6	2/3	**Characteristics of Software Ecosystem**	• Refer to BB for notes/articles
7	2/8	**Introduction to Databases**	• Introduction to Databases by P. Konana (BB) **Due: Short Assignment 3**
8 9	2/10 2/15		• Database Manipulation Language - SQL & QBE by P. Konana (BB) **Significant Assignment 1 (Databases) handed out**
10	2/17	**Introduction to Communication Ecosystem**	• Refer to BB for additional material • WWW – Refer to BB for additional material

11	2/22	**Wireless Ecosystem - Convergence**	• P. Konana, "Overview of Wireless Technologies" (BB) • Refer to BB for additional Material
12	2/24	**Introduction to Hardware Ecosystem** **Case: Apple**	**<u>Due: Significant Assignment 1</u>** • Case: Apple 2010 (RP) • Refer to BB for notes/Articles/question • Required case write-up (group work)
13	3/1	**Search as a business** **Case: Google**	• See BB for details
14	3/3	Catch up time & review	
15	**3/8**	**Mid-term Exam (Evening exam – UTC 2.102A – 7pm – 9pm)**	
16	3/10	Project Day	
Spring Break			
17	3/22	**Process Virtualization & Innovation** **Case: Cemex & JCPenney**	• Michael Hammer, "Deep Change: How Operational Innovation Can Transform your Company." (RP) • Refer to additional articles on BB **Short Assignment 4 Given out (Excel)**
18	3/24	**IT & Supply chain management**	• P. Konana, "IT and Supply Chain Management" (RP) • Refer to BB
19	3/29	**IT & Supply Chain Management** **Case: Zara's: IT for Fashion**	• Refer to BB for articles
20	3/31	**Business Value of IT**	• Case: METRO RFID Project • Developing Return on Investment models (BB) **Due: Short Assignment 4** **Significant Assignment 2 given out (Business Value)**
21	4/5	**Customer relationship management**	• Managing customer information • Recommendation systems

22	4/7	**Extracting hidden knowledge**	• Refer to BB for articles • Data mining applications & notes (BB) • Market basket analysis **Due: Significant Assignment 2** **Significant Assignment 3 given out (Data Mining)**
23	4/12	**Optimizing Search Engine & CRM**	**Case: AirFrance Internet Marketing** **In class Assignment**
24	4/14	**Social Networking Web 2.0 & new Technologies**	• Case: UnME Jeans • See BB for more details **Due: Significant Assignment 3 (April 19)**
25	4/19		
26	4/21	**Emerging Model: Software-as-a-Service** **Case: Oracle versus Salesforce.com**	• See BB for additional details
27	4/26	**Global Delivery Model**	• Konana, Tanriverdi and Ge "Global Sourcing and Value Chain Unbundling." Working Paper, UT-Austin, 2005 (RP)
28	4/28	**Business Process Outsourcing** **Case: P&G**	• Proctor & Gamble: Global Business Services • Risk Management • See BB
29	5/3	**Capstone Case** **Case: American Well**	• American well: The Doctor Will E-See You Know • See BB
30	5/5	Course summary – Final Review **Due: Final Project Report**	
Final Exam – Common Exam To Be Announced			