

Xavier University

Exhibit

Management Information Systems Syllabi

Management Information Systems

2018

680-01 Introduction to Data Mining

Joel Asay
Xavier University

Follow this and additional works at: https://www.exhibit.xavier.edu/management_information_systems_syllabi

Recommended Citation

Asay, Joel, "680-01 Introduction to Data Mining" (2018). *Management Information Systems Syllabi*. 414. https://www.exhibit.xavier.edu/management_information_systems_syllabi/414

This Restricted-Access Syllabus is brought to you for free and open access by the Management Information Systems at Exhibit. It has been accepted for inclusion in Management Information Systems Syllabi by an authorized administrator of Exhibit. For more information, please contact exhibit@xavier.edu.

INFO 550: Introduction to Management Information Systems

COURSE SYLLABUS (Summer 2018)

CLASS LOCATION AND TIME: Smith Hall, Room 252, M | W 6:00pm – 9:15pm

INSTRUCTOR

Name: Joel Asay
Email: asayj@xavier.edu
Office Location: Room 204 Smith Hall
Office Hours: **M | W 4:00pm – 6:00pm**
Or by appointment

Telephone: 513-745-2938 (office)
Website: canvas.xavier.edu
Section: 3S

Williams College of Business Mission:

“We educate students of business, enabling them to improve organizations and society, consistent with the Jesuit tradition.”

TEXTS:

None (All materials via canvas)

Pre-requisites:

None

Course Description:

The course is an examination of systems and technology involved in the production of goods and the delivery of services. The predominant focus is on the manager’s use of information and technology to influence the design, operation and control of systems that enhance competitive advantage and productivity. Topics covered include analysis of current information systems, identification and assessment of an organization’s strategic use of information systems (IS) and trends of information technology (IT) development. This course explores business processes and systems; it is highly integrative and will draw heavily from other functional areas in business. Current IT issues will also be explored for students to be aware of the intricate involvement of IT in business and personnel operations.

Learning Objectives:

Upon completion of this course, you should be able to:

- Understand the importance of information systems within an organization
- Conceptualize information systems as socio-technical and disruptive systems
- Understand how business processes are made more efficient and effective using information technology
- Understand the process of systems analysis and design
- Understand significant current issues in the acquisition and management of information systems
- Present a business case supporting an IT or IS project

WCB Learning Goals and Objectives of the course:

- **Strategic Thinking and Leadership:** MBA students will formulate business strategies utilizing their understanding of the key functional areas of business and in particular know how technology can support this.
- **Ethics and Social Responsibility:** MBAs are able to foster an ethical climate in their roles and responsibilities in business and society as well as understand social responsibility as it relates to technology in business.
- **Critical Thinking:** MBAs are able to clarify problems, generate and evaluate alternatives using appropriate analytical and quantitative techniques, and draw conclusions
- **Effective Written and Oral Communication:** MBAs are proficient in written and oral communication and in particular virtual communication.
- **Global Perspective and Cultural Diversity:** MBAs will be able to work across cultural boundaries, whether these are geographical or societal, in that they possess a recognition and appreciation of the global environment of business and an understanding and appreciation of diversity.



My vision for this semester:

Think for a moment of the businesses that would cease to exist if those organizations had to suddenly learn to operate without their primary technologies. Companies like Uber and Airbnb would be nothing without the internet. UPS and FedEx are organizations that have transformed from parcel delivery services to all forms of logistics supported by IT, and now face the very real threat of disappearance thanks to new micro-logistics services. This class is designed to highlight the benefits and risks of technology to business. We explore how technology is adopted, integrated, relied upon and transitioned to and away from.

This focus will routinely intersect with the realm of ethics and moral behavior. I challenge you to use your time in a safe, classroom environment to decide what you feel is an appropriate use of technology and what you personally believe is “crossing the line.”

General Course Policies:

- I will take attendance at every class period, and I expect you to attend every class. Participation in a case-based course is critical. When one person misses a class, that is one less perspective everyone else may learn from.
- Assignments are to be submitted on the due date. Late assignments will not be accepted unless prior arrangements have been made with the instructor. A score of 0 will be recorded for any assignment received beyond the due date.
- Grade tracking and averaging is the responsibility of the student. Canvas will be kept up-to-date for your convenience.
- All communication from me will be through Canvas and email. I usually respond to email within an hour of receipt if I'm not sleeping. I always respond within 12 hours. If I do not respond within 12 hours, I may have missed your email, and you should bother me again. I expect others to respond with 24 hours (we aren't all addicted to our electronic notifications like me!)

Class Technology Policies:

I expect technology use to be appropriate in nature. If I observe another student becoming distracted with your non-class-related technology use, I may ask you not conduct such behavior in class.



Academic Assessment:

The class will consist of the following methods of assessment:

Case Analyses and Homework:

The case method is the primary form of teaching and learning at the elite universities across the world, including Harvard Business School. We will be taking a form of the case method and adapting it for use in our class room. Several times during the semester (as highlighted in the schedule) we will be discussing these cases as a class and debating the subjects with each other. They will be broken into two groups:

During these case analyses, a group of 2 students will be responsible for leading the discussion.

To quote Harvard: *“As you watch a case study unfold in class, you’ll see students doing 85 percent of the talking, as the professor steers the conversation by making occasional observations and asking questions.”*

Personal presentation on a technology-related current event:

To become more informed about information technology in business, you are to locate one current information technology issue dealing with the strategic use or disruptive power of a technology and/or information system. You are to do a 5 to 7 minute presentation of your current IT issue using the guidelines posted in Canvas. Learning how to present on a topic and field questions from the gallery are skills that every MBA must hone to perfection! ☺

A sign-up sheet will be available on Canvas. There will be a list of suggested topics as well, but you are welcome to come up with your own. Once a topic is taken it cannot be claimed by someone else, so sign up early and always check the list to make sure no one has signed up for the topic first.

Some of my favorite personal presentations relate to up-and-coming technologies. The Consumer Electronic Show is held every January, showcasing a variety of new innovations. A great idea is to take one of these next-generation technologies and make a presentation on how you think it will upset a current business or possibly create an entirely new industry. See the rubric on canvas for further information

Excel Boot Camp:

Of all the hard skills an MBA is expected to have upon graduation, proficiency in Microsoft Excel is near the top of the list. Many students come from non-business backgrounds and even though I hate to say it, Excel is the language of business. It is often listed as the number one thing that people in Finance, Accounting, Information Systems, Human Resources and all other business disciplines have in common.

Because of this, we will spend time in INFO 550 reviewing some of the basics and learning some of the valuable, lesser-known features of Microsoft Excel. I know many of you may already be very proficient at Excel. As a result, attendance at the boot camp tutorials is optional. The Boot Camp assignments are NOT optional.

Grading Criteria:

Grading Criteria		Grade Distribution			
In-class participation	10%	A	94-100%	B-	80-82%
Homework / Cases	50%	A-	90-93%	C+	77-79%
Final Exam	20%	B+	87-89%	C	73-76%
Individual Presentations	15%	B	83-86%	F	Below 73%
Reflections	5%				

Class Schedule

Date:	Class Topics:	Case / Assignments Due
6/25	Module 1: What is IT/IS and how does it support a business? Introductions, the case method, what is IT/IS, Fundamentals of data management and flows, some IT/IS jargon	In-class Submission: IT Doesn't Matter
6/27	What are the roles of a CIO, CTO, CDO, CISO, etc. Business cases for IT/IS, Acquisition and Implementation Excel Boot Camp Tutorial 1	In-class Case Discussion: Labs or Laptops? Personal presentation topic due
7/2	Individual Presentation: IT/IS in your workplace Excel Boot Camp Tutorial 2	Presentation: IT/IS in your workplace Intro to IT/IS Quiz Due
7/4	Independence Day – University Closed	
7/6	Independence Day Makeup –Activity Held on Canvas Industry Specific IT/IS: Healthcare Greenwashing in IT/IS	Excel Boot Camp 1 Assignment Due
7/9	Module 2: The Internet Giants Business models of web and data centric organizations	Case Discussion: Amazon, Apple, Facebook and Google (2018)
7/11	Module 3: Best Practices for Managing IT/IS Intro to Analytics and Data Mining for business Text analysis with R Excel Boot Camp Tutorial 3	In-class Assignment: Sentiment Analysis Reflection 1 Due Excel Boot Camp 2 Assignment Due
7/16	In-class case: Have text, will travel Capitalizing on Analytics	Case Discussion (Joel): Have text, Will Travel
7/18	Security Debate: “The Hack Back Act” Excel Boot Camp Tutorial 4	Case Discussion: Autopsy of a Data Breach Excel Boot Camp 3 Assignment Due
7/23	Module 4: Contemporary Issues and Current Events in IT/IS Disruptive technologies Airbnb, Etsy, Uber, Craigslist, Ebay, etc. Who will survive?	Case Discussion: Netflix Inc.
7/25	Considerations on social media Debate: “Should we fire him?” Excel Boot Camp Tutorial 5	Case Discussion (Joel): Should we fire him? Final Exam Assigned Excel Boot Camp 4 Assignment Due
7/30	Net Neutrality, Regulation, Privacy Whatever happened to Apple V. FBI?	Case Discussion: Facebook's Free Basics
8/1	Individual Presentations	Presentation: Next Generation Technology Reflection 2 Due Final Exam Due Excel Boot Camp 5 Assignment Due

Case Synopses

Amazon, Apple, Facebook and Google 2018 (7/9)

Four businesses had, by 2012, grown to dominate the infrastructure that all firms rely on to reach online customers. Will the balance of power among the four persist, will one take command at the expense of the other three, or are all four more vulnerable than they seem to outside forces? Are these companies even competitors, or do they dominate unique spaces within the marketplace? How do they use technology to make money now, and how will that likely need to adapt in the future?

Autopsy of a Data Breach: The Target Case (7/18)

On December 19, 2013, Target announced that its computer network had been infiltrated by cybercriminals who stole 40 million debit and credit card numbers as well as the personal information of some 70 million additional customers. The case presents the cybercriminals' activities leading up to the breach, details of the commission of the theft, the measures that Target had put in place to deter such attacks, its ill-fated response during the attack and, finally, the impact of the breach on Target as well as on the retail industry as a whole.

Netflix Inc.: The Disruptor Faces Disruption (7/23)

Netflix Inc. (Netflix) had surpassed Blockbuster, the previous movie rental leader, before making the successful transition to digital delivery of video content. But despite Netflix's success, in 2017, numerous competitors, including both established, mainstream content producers and digital upstarts, were making it difficult for Netflix to recreate its earlier dominance. Critics pointed to Netflix's slowing acquisition of subscribers and accelerating debt levels. Netflix's chief executive officer was confronted with disruption from a variety of digital rivals. How should he respond? Should Netflix continue to try to be a content producer, competing with Hollywood's industry leaders? Should it form a partnership with other media companies to align everyone's incentives? Perhaps it could move into other media content areas outside of traditional entertainment. Further, there remained the question of how to treat its legacy DVD-by-mail business. As the incumbent firm, Netflix needed to respond to competitors and avoid a fate similar to that of Blockbuster.

Facebook's Free Basics: Free in India? (7/30)

Facebook's Free Basics program was meant not only to enable internet access on a smartphone but also to deliver free or low-cost internet connectivity to the masses. It had already been launched in several other countries but has not been well received in India due to regulatory concerns—primarily surrounding the concept of net neutrality since it essentially incentivized people to use specific web services. Is it really the government's job to protect the masses from free, sponsored internet usage or should individual companies be able to endorse and prioritize some data over others? The debate rages in the United States too...how would our domestic marketplace respond to a program like Facebook's Free Basics? Are there services like this that already exist?

Disabilities Disclosure Statements

Qualified students with disabilities who will require disability accommodations in this class are encouraged to make their requests to me by sharing their Accommodation Letters with me at the beginning of the semester either during office hours or by appointment. Disability related information is confidential. If you have not previously contacted Disability Services, I encourage you to do so by phone at 513-745-3280, in person on the Fifth Floor of the Conaton Learning Commons, Room 514, or via e-mail to Cassandra Jones at jonesc20@xavier.edu, to coordinate reasonable accommodations as soon as possible as accommodations are not retroactive.

It is my goal that this class be an accessible and welcoming experience for all students. If you are a student with a disability who may have trouble participating or effectively demonstrating learning in this course, contact me to arrange an appointment to share your Accommodation Letters from Disability Services and to discuss your needs. Disability related information is confidential. If you have not contacted Disability Services (located in the Learning Assistance Center) to arrange accommodations, I encourage you to do so by contacting Cassandra Jones, by phone at 513-745-3280, in person on the Fifth Floor of the Conaton Learning Commons, Room 514, or via e-mail at jonesc20@xavier.edu as soon as possible as accommodations are not retroactive.