Xavier University

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INFO 682 Health Information Systems

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INFO 682: Health Information Systems

COURSE SYLLABUS (Summer 2017)

CLASS LOCATION AND TIME: ONLINE

INSTRUCTOR

Name:	Joel Asay
Email:	asayj@xavier.edu
Office Location:	Room 221 Smith Hall
Office Hours:	Via email, phone or video conference by appointment
Telephone:	513-475-2938 (office)
Website:	canvas.xavier.edu
Section:	01

Required Text:
Harvard Business Course pack—Available for purchase here:
{URL HERE WHEN AVAILABLE}

This course pack includes the following cases:
- Carolinas HealthCare System: Consumer Analytics
- Applications of Business Analytics in Healthcare
- Implementing an Electronic Health Record at the Central City Medical Group

Required Text:
Health Informatics: Practical guide for healthcare and information technology professionals (6th edition)
- By Robert Hoyt and Ann Yoshihashi; ISBN: 978-1304791108

Pre-requisites:
INFO 550

Williams College of Business Mission:
"We educate students of business, enabling them to improve organizations and society, consistent with the Jesuit tradition."

Course Description:
The course is an examination of systems and technology involved in the management of health services organizations. The predominant focus is on management's use of information technology to influence the design, operation and control of systems that enhance competitive advantage and improve health outcomes. Topics covered include hardware and software components to health information systems, federal health IT policy, privacy, ethics, electronic health records, health data systems, next generation health technology and clinical and business health informatics.

Learning Objectives:
Upon completion of this course, you should be able to:
- Understand the importance of information systems in a health organization
- Explain the IT infrastructure used various data systems.
- Understand the importance of informatics to clinical and operational outcomes
- Understand current issues in the acquisition and management of health information systems
- Interpret and apply federal and state health IT policy to organizational strategy
- Understand health informatics research and know where to look for best practices
- Understand and interpret the output of business analytics tools as applied to healthcare

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My vision for this semester:
While other industries have been quick to adopt technology, IT adoption in health services organizations has lagged. In just the last few years we have seen widespread adoption of electronic health records, a redesign of health information systems and an application of business analytics in healthcare. This class is designed to examine the benefits and risks of these systems in the healthcare industry.

Our focus will routinely intersect with the realm of ethics and moral behavior. I challenge you to use your time in our safe, online classroom environment to decide what you feel is an appropriate use of technology and what you believe is considered "crossing the line."

General Course Policies:
- Due to the online nature of the course, attendance will not be taken per se, however I expect everyone to participate in the discussion boards and other aspects of the class as appropriate.
- 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 a few hours 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!)

Academic Assessment:
The class will consist of the following methods of assessment:

Final Exam:
There will be one comprehensive final exam covering all class material. The exam will cover material from the readings, in-class discussions, case analyses, and assignments. It will primarily be a written, essay exam with a few extra questions regarding important technology subjects covered during the course. The final exam will be timed and completed on canvas.

Case Discussions:
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 via the discussion boards.
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."*

Homework:
Weekly assignments will typically come in the form of readings, essays, IS activities and written case analyses. It is imperative you come prepared for each class period, since what you study on your own will be required for you to fully participate in-class.

Discussion board participation:
Because the case method requires everyone to properly work, I require you to be engaged in class to the fullest degree possible. Each week you will be given the opportunity to earn up to 3 points, assessed as follows:

 1 points   Quality summary post only with no follow-up or additional discussion
 2 points   Routine participation in discussions, but not substantively contributing to the conversation.
 3 points   Frequent participation with valuable insights, comments and thought-provoking questions

Reflections:
Reflections on the course and your learning will be submitted twice during the term. These short (2-3 paragraphs) are meant for you think back on the key points and reactions to topics brought up during in-class discussions and how these relate to your current or future work environment. Reflections should include, but not be limited to:

- How will the information from the past few weeks influence or benefit you?
- Did any specific subject or topic presented in class make you feel passionate or polarized in some way? Did something we discussed in class change your opinion about a subject?
- Is there a rebuttal you would like to offer against another argument presented in class?

These reflections will only be read by me, but if you present a good argument or idea, I will seek your permission before anonymously bringing up the idea in a future class.

Grading Criteria:

Grading Criteria		Grade Distribution			
In-class participation	40%	A	94-100%	C+	77-79%
Homework	25%	A-	90-93%	C	74-76%
Final Exam	30%	B+	87-89%	C-	70-73%
Reflections	5%	B	84-86%	D	60-69%
		B-	80-83%	F	Below 60%

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.

Class Schedule

Module	Class Topics:
1	Introduction to health IT/IS, health data flows, electronic medical records, and health IT policy
2	Health data systems and infrastructure, DB management, design and ETL, data to information
3	Interoperability, HIE, population health, GIS
4	Clinical informatics research and IS providing evidence for improved patient outcomes
5	Business analytics applied to healthcare, knowledge generation, and decision support systems
6	Telehealth, remote monitoring, wearables, personal health records, and future technologies
7	Ethics, privacy, and health information security
8	Conclusion, the future of health IT/IS, final examination