

Xavier University

Exhibit

Health Services Administration Syllabi Spring
2019

Health Services Administration Syllabi 2019

2019

HESA 539-01 Informatics for Health Industries

Chris Boue
bouec@xavier.edu

Follow this and additional works at: [https://www.exhibit.xavier.edu/
health_services_administration_syllabi_spring_2019](https://www.exhibit.xavier.edu/health_services_administration_syllabi_spring_2019)

Recommended Citation

Boue, Chris, "HESA 539-01 Informatics for Health Industries" (2019). *Health Services Administration Syllabi Spring 2019*. 28.
https://www.exhibit.xavier.edu/health_services_administration_syllabi_spring_2019/28

This Restricted-Access Syllabus is brought to you for free and open access by the Health Services Administration Syllabi 2019 at Exhibit. It has been accepted for inclusion in Health Services Administration Syllabi Spring 2019 by an authorized administrator of Exhibit. For more information, please contact exhibit@xavier.edu.

XAVIER UNIVERSITY
GRADUATE PROGRAM IN HEALTH SERVICES ADMINISTRATION
COLLEGE OF SOCIAL SCIENCES, HEALTH, AND EDUCATION

HESA-539
Informatics for Health Industries

Number of credit hours
Semester

2
Spring 2019
Monday 6:00-8:30 pm
Chris Boue, MBA,
ALU B-13
By Appointment

Instructor name:
Instructor office:
Office hours:
Office Phone:
Cell Number
Instructor E-mail:

(513) 254-1010
bouec@xavier.edu

Course Description (from the Xavier University Catalog)

Studies focus on the selection and use of advanced healthcare systems with emphasis given to systems assessment and technologies to improve administrative and clinical operations. System interventions from an innovative viewpoint will be explored including information representation, contemporary issues in the delivery of health care in complex healthcare systems, trends in administrative informatics, legal and ethical considerations inherent with shared data, and the essential role of informatics during the historic evolution of healthcare in the United States.

Competencies/Student Learning Outcomes for HESA 539			
Course Objectives	Competency/ Student Learning Outcome	Minimum expected level of competence	Method of assessment
Explain various Governance models of IT within health care organizations.	#3 Identify and articulate government, regulatory, professional and accrediting agencies' roles in health care.	Competent- Knows the government, regulatory, professional and accrediting agencies, and has a basic understanding of the roles of each.	Exam, Presentation, Participation
Understand the fundamental operations of health care IT including the architecture of IT infrastructure and the delivery of services by IT.	#5 Understand commonly used medical terminology.	Basic-Defines common medical terms appropriately, but has difficulty with application of those terms to medical care and administration.	Exam, Participation, Presentation
Explain the importance of a master plan for information system development and	#9 Understand how organizational dynamics and governance are important when making	Basic- Demonstrates a basic understanding of fundamental aspects of	Participation, Exam

procedures for developing such a plan.	strategic and managerial decisions.	strategic and managerial decision making.	
Explain why health care organizations need modern information systems.	#12 Understand how information technology is used to support healthcare operations.	Competent- Able to articulate knowledge of healthcare information technology, and is able to describe how information technology is used to support healthcare operations.	Exam, Presentation, Participation
Describe general systems theory and relate it to achieving health care goals.	#19 Be able to present information using appropriate oral skills and technology.	Competent- oral presentations get the point across and the speaker displays comfort in speaking.	Participation, Presentation
Explain current information systems designs and applications to support: (1) patient care; (2) administration; (3) decision making; and (4) managed care operations.	#30 Understand and be able to apply systems thinking.	Basic- Able to understand how parts are related to a whole.	Participation, Exam

COURSE REQUIREMENTS AND METHODOLOGY

- **Requirements**

- To take this course out of sequence requires the instructor's permission. The student must have passed HESA 529 with a minimum of a C. This course is required for graduation, and is new to the curriculum this year. The course is during the spring semester of the second year.

- **Methodology**

- **Structure of Course:**

- **Learning**

- You will learn in this course using a variety of learning and teaching methods. On an average week, you will spend approximately 8 hours learning in this course:
 - In class Student presentations 25%
 - Case Studies 10%
 - Team Activities 20%
 - Strategic/Consulting Projects 10%
 - Lectures 10%
 - Readings 15%
 - Class Discussion 10%
- This course is web enhanced. A variety of instructional methods will be used such as, class presentations, guest speakers, group discussions and activities, individual readings, and written assignments. No credit will be given for class participation activities

if the student is not present or participatory. Students should check the course Canvas site for class exercises and come to the learning environment prepared to discuss/participate. Early communication with the faculty is necessary for any difficulties related to course assignments, requirements and/or technical problems.

- This class uses Canvas to supplement course information and augment the learning environment. The Canvas platform provides faculty information, schedule of assignments, clear links to learning resources and access to grade book. Students should access email and Canvas regularly in order to remain informed and to view/submit weekly course activities (worth an average of 1% point per week).
- All assignments are to be submitted electronically through Canvas. Assignments should not be handed in via paper or e-mail.
- **Informed Participation:**
 - Students are expected to actively engage in informed discussion and sharing with other students. These discussions should demonstrate active involvement with the material being considered. Students will share their perspective about their own ideas and consider the ideas of others. Students will have a shared responsibility for learning and for creating and sustaining the learning community that will be developed within the context of this course.
- **Lectures:**
 - Classes will consist of a mixture of lecture and discussion by the class. Students are strongly encouraged to ask questions any time during lectures. It is imperative that students become familiar with the assigned reading materials before attending class.
- **Weekly Journal Post:**
 - Each week before class, students will be responsible for posting a Journal that may be shared with the class. The weekly Journal should be centered on a current article or situation happening that relates to the class material covered this week. In one-five sentences, describe the article or situation and its relevance. A link to each article or situation should be included. The post must be submitted before each class for credit.
- **Quizzes:**
 - The student should be prepared for a quiz at the beginning of class. When a quiz is given, it will be an in-class quiz given the first 15 minutes of class and will cover readings that are listed below in preparation for the class discussion. These quizzes may not be made up although the lowest quiz grade will be dropped. Students must be present at the start of class time (6:00pm) to be able to take the quiz.
- **Examination:**
 - Examinations will be a final that is cumulative, or a mid-term and final that is not cumulative. Make-ups for the examinations will only be given in extreme cases of student incapacitation. Approval for a make-up must be given by the instructor prior to the exam period. The exams will cover assigned reading and supporting material.

- **Case Study /Case Study Presentations:**
 - Students will be in Teams for the presentations. The team will be responsible for presenting in a targeted HIT subject area. The team will be conducting in-depth research and analysis on their topic, having discussions with organizations and presenting their findings to the class via a PowerPoint presentation. Additionally, a supporting document with the references and sources will be submitted.
- **Class attendance and participation**
 - Satisfactory informed participation is required. Students are expected to participate actively throughout the duration of this course and all assignments are expected to be will submitted on or before the due date.
 - Faculty recognizes that students are balancing multiple responsibilities outside of the course and wish to be flexible in this regard. However, “informed” participatory learning mandates that students attend and participate actively in the learning environment in order to optimally meet course objectives. Hence, failure to be present for participation will be reflected in the course grade. Please do not request exceptions to this policy.
- **Course and Resource Materials:**
 - This course is web enhanced through Canvas. A variety of methods will be utilized in and out of class to enhance the learning experience:
 - Links to supplemental readings and media
 - Audience Response System
 - Canvas exercises and class participation activities
 - Examples of assignments for student reference
 - Multiple choice/short answer questions on Canvas and/or in class exams
 - Course and supplemental materials/links will be made available to students through Canvas. Xavier’s Library offers a convenient service of providing direct access to many full text articles on-line. If an article is not available, the library will request the article through the Interlibrary Loan system, and forward an electronic copy to you via e-mail. Only materials from reputable, professional web sites and journals should be considered.
 - The Canvas course software enables the instructor to know who logged into the course, where in the course site they have visited, and how long they stayed. The Technology Support people also have access to all information posted in Canvas. Consider this every time you enter the Canvas virtual classroom and post assignments or submit materials under your user name. Represent yourself truthfully at all times in this course. **Do not allow access to the course by anyone other than you. Falsifying identity is grounds for disciplinary action of all parties involved.**
 - **Online Grade Book:**
 - Students will have access to the online grade book via Canvas. This grade book is confidential and only available to

the individual student. Unless noted otherwise, it is anticipated that grades for assignments will be posted within two weeks after the submission deadline.

- **Technology Needed to Participate in Program:**
 - To use Canvas and view supplemental materials, students will need access to computer hardware, computer software, and Internet access. Either an IBM compatible PC or a Macintosh type computer is acceptable. Recommended minimum configurations will allow students adequate memory, speed, and peripherals to accomplish course tasks.
 - Additional programs may be needed to enable viewing and sharing of files (often called plug-ins). These can be downloaded from the internet for use:
 - Adobe Acrobat©
 - Media Player©
 - PowerPoint Viewer©
 - Real Audio©
 - Quicktime©
 - [Shockwave©](#)

- **American Psychological Association (APA) style**
 - APA style is the required format for all papers submitted during your academic career at Xavier University. There are books published and many Internet resources. One particularly good resource is available from Xavier University at:
http://www.xavier.edu/library/help/apa_guide.pdf

- **Evaluation**

Grading Weights	
Class Participation	35%
(Includes Journals, weekly presentations and Quizzes/Mid-Term)	
Case Study / Presentation	35%
Final Exam	<u>30%</u>
	100%

Grading Scale

A	94-100	C+	77-79
A-	90-93	C	74-76
B+	87-89	C-	70-73
B	84-86	F	0-69
B-	80-83		

Department's description of the letter grades is presented here:

- "A-" or above represents academic performance that is exceptional or significantly above expectations.
- "B" or above represents academic performance that meets or is somewhat above expectations.

- “B-” or lower represents academic performance that is somewhat to significantly lower than expectations

ACCOMMODATIONS

If you have a disability for which you require accommodation in order to give your best academic performance in this course, please notify the instructor. You should consult or register with the Learning Assistance Center (513-745-3280) so that together you can work to develop methods of addressing needed accommodations in this class.

REQUIRED READINGS:

The Strategic Application of Information Technology, third ed., Glaser; Salzberg

Supplemental reading will be assigned during the semester. Instructor maintains the right to assign an additional supplemental article no later than one week prior to the due date.

Academic Honesty

“The pursuit of truth demands high standards of personal honesty. Academic and professional life requires a trust based upon integrity of the written and spoken word. Accordingly, violations of certain standards of ethical behavior will not be tolerated at Xavier University. These include theft, cheating, plagiarism, unauthorized assistance in assignments and tests, unauthorized copying of computer software, the falsification of results and material submitted in reports or admission documents, and the falsification of any academic record including letters of recommendation. All work submitted for academic evaluation must be the student’s own. Certainly, the activities of other scholars will influence all students. However, the direct and unattributed use of another’s efforts is prohibited as is the use of any work untruthfully submitted as one’s own. Penalties for violations of this policy may include one or more of the following: a zero for that assignment or test, an “F” in the course, and expulsion from the University. The dean of the college in which the student is enrolled is to be informed in writing of all such incidents, though the teacher has full authority to assign the grade for the assignment, test, or course. If disputes of interpretation arise, the student, faculty member, and chair should attempt to resolve the difficulty. If this is unsatisfactory, the dean will rule in the matter. As a final appeal, the academic vice president will call a committee of tenured faculty for the purpose of making a final determination.”

Faculty Note

In addition to the above (taken directly from the University Catalog), please be aware that cutting and pasting from the Internet is not allowed! If you use more than three words written by someone else, I expect it to be in quotes. When you are writing you should use your own words and thoughts, not those of anyone else. You **may not** take a sentence and change one to two words and call it your own.

This syllabus and course outline is subject to change due to unforeseen circumstances.

Students with Disabilities: If you have a documented disability and wish to discuss academic accommodations, please contact course faculty as soon as possible. If you haven’t already, you must also contact the Learning Assistance Center at 513-745-3280

on the fifth floor of the Conaton Learning Commons, Room 514 or e-mail Cassandra Jones at jonesc20@xavier.edu, to coordinate reasonable accommodations.

Student Support: Occasionally, students may experience personal problems or difficulties during the term that can be emotionally disturbing and may seriously interfere with learning. If this should happen to you, please meet with me to see what can be worked out. In addition, the University provides supportive services for students. For more information, go to: <http://www.xavier.edu/sss/>

Student Compartment: Professional behavior is expected and is cultivated throughout this course, and the health informatics curriculum. Appropriate professional behavior is exemplified by, though not limited to, activities such as actively listening to peer/faculty ideas, assuming responsibility for one's own actions, and giving consideration and respect to the ideas of others.

Social Media: Social media and the internet provide an important medium for sharing information and offers easily accessible methods for mass communication. Informatics students must be aware of the risks and consequences associated with social networking. On-line social networking (e.g., Face book, MySpace, Twitter, blogs, etc.) are open, publicly accessible sites. Unprofessional or unbecoming online behavior undermines not only the Informatics student's reputation, but may also have negative implications for Xavier University, and the profession of Informatics. Certain violations in the use of social media may expose the offender to criminal and civil liability. Refer to your student handbook for more information and to view the Social Media Policy.

<i>Week</i>	<i>Date</i>	<i>Topic / Assignment Due</i>	<i>Objective</i>	<i>Reading</i>
1	1/14/19	<u>Introductions, Course Expectations and Objectives</u> <u>Overview of Strategy</u>		
2	1/21/19	<u>NO CLASS</u>		
3	1/28/19	IT strategies	<ul style="list-style-type: none"> • Define strategy. • Explain the need for IT strategy. • Identify areas of IT strategy. • Describe the characteristics of strategic thinking. 	The Strategic Application of Information Technology, Glaser – Chapter 1
4	2/4/19	IT strategies 2	<ul style="list-style-type: none"> • Describe how IT strategies are linked to organizational strategies via the following four vectors: • IT strategies derived from organizational strategies • IT strategies based on continuous improvement of core processes and information management • IT strategies based on examination of the role of new technologies • IT strategies based on assessment of strategic trajectories 	The Strategic Application of Information Technology, Glaser – Chapter 2

Week	Date	Topic / Assignment Due	Objective	Reading
5	2/11/19	<u>The Information Technology Asset</u>	<ul style="list-style-type: none"> Identify and describe each of the components of the IT asset (application systems, technical architecture, data, and IT staff). Describe how each component of the IT asset may change as a result of strategic planning. Explain how improving the IT asset can leverage a wide range of current and future IT plans. Define the role of a Chief Information Officer (CIO) in a health care organization. 	The Strategic Application of Information Technology, Glaser – Chapter 3
		<u>Capabilities & Characteristics</u>	<ul style="list-style-type: none"> Identify organizational factors that have a bearing on IT effectiveness. Describe <i>managing process change</i> in the context of IT. Describe potential structures for IT governance. Summarize research findings related to effective IT application. 	The Strategic Application of Information Technology, Glaser – Chapter 4
6	2/18/19	<u>Strategy Considerations & Conclusions</u>	<ul style="list-style-type: none"> Summarize strategy considerations that organizational leaders should understand. Explain what a complementary strategy is. Explain how organizations can realize IT-enabled value. Describe the process of strategy evolution. Describe how IT can enhance competitive position. Give examples of governing concepts. 	The Strategic Application of Information Technology, Glaser – Chapter 5

<i>Week</i>	<i>Date</i>	<i>Topic / Assignment Due</i>	<i>Objective</i>	<i>Reading</i>
7	2/25/19	<u>High Performance Medicine (HPM)</u>	<ul style="list-style-type: none"> Describe challenges to high quality, safe, efficient health care. Identify 5 core initiatives of High Performance Medicine and describe how IT supports each one. Describe how CPOE and EHR were used in HPM. Explain how governance and change management impact a framework like High Performance Medicine. 	The Strategic Application of Information Technology, Glaser – Chapter 6
8	3/4/19	<u>NO CLASS</u> <u>ACHE Congress</u>		
9	3/11/19	<u>NO CLASS</u> <u>Spring Break</u>		
10	3/18/19	<u>Personalized Medicine</u>	<ul style="list-style-type: none"> Define personalized medicine. Compare current clinical medicine practice with potential practice based on personalized medicine. Describe the role of IT in integrating personalized medicine into clinical practice. Identify components of the IT infrastructure that are specific to clinical needs, those specific to research needs, and those that can be shared. 	The Strategic Application of Information Technology, Glaser – Chapter 7

<i>Week</i>	<i>Date</i>	<i>Topic / Assignment Due</i>	<i>Objective</i>	<i>Reading</i>
		<p><u>Service-Oriented Architecture for EHR</u> Student Presentation -- Team Guest Q&A – “Improving our health through HIE technology”</p>	<ul style="list-style-type: none"> • Describe what it means for an organization to have a service-oriented architecture. • List potential benefits and potential drawbacks of using service-oriented architecture in health care. • Identify methods of introducing service-oriented architecture into an organization. 	<p>The Strategic Application of Information Technology, Glaser – Chapter 8</p>
11	3/25/19	<p><u>Population Health Health Care Reform</u></p>	<ul style="list-style-type: none"> • Describe ways in which HIT can be used to address problems in the US health care system, namely cost, quality, care coordination, and disease prevention. • Discuss US legislation related to HIT use (HITECH, PPACA). • Describe state and national HIT initiatives in the US and the effects these initiatives have on the IT strategy of health care organizations. • Define public health and identify its objectives. • Describe the importance of data in public health. • Explain how clinical data and providers are part of the public health system. • Describe how IT can be used to manage population data for public health. 	<p>The Strategic Application of Information Technology, Glaser – Chapter 9</p> <p>The Strategic Application of Information Technology, Glaser – Chapter 10</p>

<i>Week</i>	<i>Date</i>	<i>Topic / Assignment Due</i>	<i>Objective</i>	<i>Reading</i>
12	4/1/19	<u>Synthesis of IT Strategy</u>	<ul style="list-style-type: none"> • From the examples from Partners HealthCare (HPM, SOA, PM, and new care models) evaluate the components of IT strategy scope: • The IT asset • IT-centric characteristics and capabilities • IT strategy considerations 	The Strategic Application of Information Technology, Glaser – Chapter 11
13	4/8/19	Case Study Presentations		
13	4/8/19 – 4/15/18	FINAL EXAMINATION	Take home. Active from 4/8/19 @ 8:30p to 4/15/19 @ 8:30p	

*Note: The above schedule is subject to change.

**Supplemental Article(s) will be posted to Canvas no later than one week in advance of class.