

Xavier University

Exhibit

Nursing Syllabi Spring 2020

Nursing Syllabi 2020

2020

764 Administrative Informatics

Barbara Wright
wrightb6@xavier.edu

Follow this and additional works at: https://www.exhibit.xavier.edu/nursing_syllabi_spring_2020

Recommended Citation

Wright, Barbara, "764 Administrative Informatics" (2020). *Nursing Syllabi Spring 2020*. 58.
https://www.exhibit.xavier.edu/nursing_syllabi_spring_2020/58

This Restricted-Access Syllabus is brought to you for free and open access by the Nursing Syllabi 2020 at Exhibit. It has been accepted for inclusion in Nursing Syllabi Spring 2020 by an authorized administrator of Exhibit. For more information, please contact exhibit@xavier.edu.

XAVIER UNIVERSITY | COLLEGE OF NURSING

SPRING SEMESTER 2020

Course Number/Title: NURS 764 - Administrative Informatics

Credit Hours: 3 semester credits

Pre-Requisites and Co-Requisites: *Completion of MSN Core Classes or Approval of Faculty*

Faculty: Barbara J Wright, MSN, RN-BC, INS
wrightb6@xavier.edu (preferred contact method)
Cell: 513-503-8415
Office Hours: By appointment.

Course Place/Time: Thursdays 7:00PM – 9:30PM, HUB (Health United Building) – Rm 201

Course Description:

The focus of this course is to prepare holistic nurse leaders to analyze current and emerging technologies within interprofessional microsystems and mesosystems that support safe practice environments, optimize patient safety, reduce risk and promote desired clinical outcomes. Integrate administrative decision making within an informatics systems lifecycle model. Technology policies and procedures that incorporate ethical, administrative and complexity principals for regulatory, accreditation and payer requirements will be critiqued.

Course Objectives:

1. Explore current and emergent technologies for holistic nurse leaders.
2. Investigate applicable theories that support nursing informatics and administration practice within complex microsystems and mesosystems.
3. Discuss information technologies and strategies to optimize patient safety and reduce risk and promote clinical outcomes.
4. Use data management systems to process administrative data while ensuring data integrity and quality
5. Assess the systems life cycle model as an ongoing process of analysis, design, implementation, maintenance, planning and analysis.
6. Discuss required components in policies and procedures to support informatics technologies for nurse leaders in an interprofessional environment.
7. Discuss the application of ethical, administrative and complexity principles in informatics and nursing administration.
8. Critique regulatory, accreditation and payers requirements in complex healthcare settings.

Preferred Text: Essentials of Nursing Informatics, 6th Edition
By Virginia Saba, Kathleen McCormick, 2015

Methods of Instruction: *Large and small discussion and/or work groups, short response papers, surveys, student led discussions, audience response system (clickers), concept analysis/mapping, viewing of short audiovisuals, multimedia presentations, reflections, case studies, role play, professional guest speakers, obtaining/sharing/critiquing any or all of the following: scholarly articles, current events/news documents, and/or scholarly websites.*

Outline:

- I. Emergent technologies
 - a. Telehealth
 - b. ASP and cloud technology
 - c. PDA
 - d. WAN and wireless technologies
- II. Theories
 - a. Informatics
 - b. Micro, meso and macro systems
- III. Administrative
 - a. Data mining processes
 - b. Clinical bedside and point of care technology
 - i. Evaluation and Implementation of the EMR/EHR
 - ii. Administrative Decision Making related to RFP's and Vendor Selection
 - iii. Budgetary restrictions with electronic systems
 - c. Timing and attendance systems
 - d. Link technology with workflow processes
 - e. Policies and procedures
 - f. System life cycle
 - i. Process to evaluate technologies
 - g. Coding systems
 - h. Ethics of Informatics
 - i. Security
 - j. Regulations of nursing informatics
 - k. Roles
 - i. Nurse informaticist
 - ii. Nurse administrator
 - l. Integration of various systems to "work for you"
 - m. Risk reduction
 - i. Safety promotion
 - ii. Disaster Management Systems
- IV. Outcomes
 - a. QM systems
 - b. Decision support within systems and effective use of tools
- V. Requirements
 - a. Regulatory
 - b. Accreditation
 - c. Payer

Evaluation Strategies:

Participation/Attendance/Weekly Assignments	30 points
Individual Paper Presentation	30 points
Group Project	<u>40 points</u> = 100 points

Participation:

Active participation is required during this course. In order to receive participation credit you must attend class and participate in the discussion. Weekly assignments and article reviews are required based on the schedule. All articles require peer-review article reviews. Any Canvas assignments require at least two substantive posts during the week of the assignment

Grading Scale:

100-94%	A
93-90%	A-
89-87%	B+
86-83%	B
82-80%	B-
79-76%	C+
75-70%	C
Below 70	F

XAVIER UNIVERSITY | COLLEGE OF NURSING

SCHEDULE – Spring Semester 2020

WEEK	DATE	READING (Not required)	ASSIGNMENT	DUE DATE
1	01/16/20	None	Introductions	None
2	01/23/20	Chapters 11-14	Peer-Reviewed Article Review: EMR vs. EHR	01/23/20
3	01/30/20	Chapters 15,16, 18 <i>(online class)</i>	Peer-Reviewed Article Review: Nursing Informatics and Healthcare Policy	01/30/20
4	02/06/20	Chapters 18, 20	Peer-Reviewed Article Review: Research Vendors and Products for EHR	02/06/20
5	02/13/20	Chapters 17, 22	Peer-Reviewed Article Review: Nursing Leadership's role in choosing technology	02/13/20
6	02/20/20	Individual PRESENTATIONS	Individual Presentations	02/20/20
7	02/27/20	Individual PRESENTATIONS (cont'd)	Individual Presentations	02/27/20
8	03/05/20	GUEST SPEAKER	Participation Credit	03/05/20
9	03/12/20	NO CLASS - SPRING BREAK	None	NO CLASS
10	03/19/20	Chapters 36-41	Peer-Reviewed Article Review: Analytics in healthcare and its effect on quality improvement	03/19/20
11	03/26/20	Chapters 42-46	Peer-Reviewed Article Review: Educational Applications in Informatics	3/26/20
12	04/02/20	Chapters 51-56 <i>(online class)</i>	Peer-Reviewed Article Review: International Perspectives with Informatics/Technology/EHRs	04/02/20
13	04/09/20	NO CLASS - EASTER BREAK	None	NO CLASS
14	04/16/20	Group Work	None	04/16/20
15	04/23/20	None	Group Presentations	04/23/20
16	04/30/20	None	Group Presentations	04/30/20

Rubric for Individual Assignment

Your individual assignment consists of the development and presentation of an application on a smartphone that can be used in your particular work or clinical setting. This application needs to consist of technology that can interface with your current computer systems. You will need to discuss the application in presentation form and explain how it is integrated in the workplace. You will essentially be performing a sales pitch to the classroom. You need to look at all administrative aspects of purchasing your product. The presentation should be no more than 10 minutes in length. You must have at least 3 peer reviewed references that you have used to create your product. Your presentation should include a Power Point (with notes).

Category	Points
Originality	5
Functionality	5
Presentation (Speech)	5
Content	5
Peer-Review References	5
Power Point	5
TOTAL	30

Rubric for Group Assignment

Your Group Assignment will have no more than 3 people in it. I am happy for you to pick your groups. You will develop a piece of medical equipment that interfaces with the electronic medical record. You will present this product as if you are the vendor in an RFP (request for proposal). You must compare your product to at least 3 other vendors in the marketplace. Your presentation should be no more than 20 minutes in length. Please develop your PowerPoint and presentation with the following information: *Cost, interoperability, integration, confidentiality (risk), end-user pros and cons, and long-term needs to support the product from an IT perspective.*

Category	Points
Originality	10
Functionality	5
Presentation (Speech)	5
Content	5
Peer-Review References	5
Power Point	5
Peer Evaluation	5
TOTAL	40

**NURS 764: Nursing Administration in Complex Healthcare Organizations
Evaluation for Learning Activities and Attendance/Informed Participation**

Evaluation for Learning Activities (average 1 point/week)

In class and online Learning Activities will be used extensively in this course. Learning activities are designed to be “hands-on” activities to help students prepare for class, and/or apply course content. Learning Activities may be in-class or online and average one point/week. Learning Activities are posted under the “Learning Activities” tab on Blackboard. Each week’s activities should be completed by the due date posted. Examples of Learning Activities (online or in-class) designed to re-enforce course content include. All weekly assignments will require peer-reviewed articles and a summary to be presented with the relevant topic. If blackboard is used for assignments, all references must be peer-reviewed. In addition, all responses will be graded based on substantive quality.

Large and small discussion and/or work groups, short response papers, surveys, student led discussions, audience response system (clickers), concept analysis/mapping, viewing of short audiovisuals, multimedia presentations, reflections, case studies, role play, obtaining/sharing/critiquing any of the following: scholarly articles, current events/news documents, and/or scholarly websites. Strategies used to evaluate Learning Activities are outlined below:

Weekly Learning Activities	0-0.24	0.25-0.74	0.75-1
Quality	Comments or questions simply reaffirm existing knowledge ("I agree")	Comments or questions stimulate thinking. Completes Learning Activities in a manner that uses course concepts.	Comments or questions increase knowledge and stimulate thinking. Completes Learning Activities in a manner that demonstrates application of course concepts.
Quantity	Infrequent to no contribution to meaningful discussion. Late or no participation in activity or discussion.	Contributes to discussion/activity in a meaningful way some of the time before the assignment due date or during the class activity.	Consistently contributes to discussion/activity in a meaningful way on or before the assignment due date or during the class activity.
Professional language	Rarely uses professional language. Demonstrates minimal to no understanding of concepts.	Frequently uses professional language in discussion and activities that demonstrates some understanding of concepts	Consistently uses professional language in discussions and activities that reflect significant understanding of concepts

Evaluation for Attendance and Informed Participation (1 point/week)

In class and online informed participation is essential in this course. Informed participation is equivalent to one point each week. Attendance requires the student’s presence either in-class or online. Informed Participation means the student is engaged in the class in a manner that demonstrates the quality, content, quantity and professional language expected of a graduate level professional nursing student. Strategies used to evaluate informed participation are outlined below:

Weekly Informed Participation	0-0.24	0.25-0.74	0.75-1
Quality	Comments or questions simply reaffirm existing knowledge ("I agree")	Comments or questions stimulate thinking	Comments or questions increase knowledge and stimulate thinking
Quantity	Infrequent to no contribution to meaningful discussion	Contributes to discussion in a meaningful way on occasion	Consistently contributes to discussion in a meaningful way
Professional language	Rarely uses professional language. Demonstrates minimal to no understanding of concepts	Frequently uses professional language that demonstrates some understanding of concepts	Consistently uses professional that reflects significant understanding of concepts

XAVIER UNIVERSITY: ADMINISTRATIVE INFORMATICS NURS-764

LEARNING TEAM _____ **ASSIGNMENT** _____ **WEEK** _____

USING THE SCALE BELOW, INDIVIDUALLY RATE EACH MEMBER OF YOUR LEARNING TEAM; INCLUDING YOURSELF (PLEASE USE THE COLLABORATION GUIDE ON THE NEXT PAGE FOR A MORE DETAILED DESCRIPTION OF EACH CATEGORY).

4 = Excellent 3 = Good 2 = Fair 1 = Poor 0 = None

Learning Team Evaluation Form	Team Involvement <small>(Active and substantively involved in the team discussion)</small>	Time Management <small>(Supported team timeline)</small>	Establishing and Following Guidelines <small>(Helped to define and adhere to the goals, roles, and responsibilities of the team)</small>	Professional Communication <small>(Communicated clearly and professionally)</small>	Team Contributions <small>(What did each team member contribute to the assignment? What value did that contribution add to the completed assignment?)</small>	Collaboration Comments <small>(Please include any comments describing why each person received the collaboration score that you gave them.)</small>
	score	score	Score	score	comments	comments
Self-Score (Your name)						
Team Member (Name)						
Team Member (Name)						
Team Member (Name)						
Team Member (Name)						
Team Member (Name)						
	<p>Team Contributions Please consider the following when providing individual and team feedback on contributions made to the assignment.</p> <ol style="list-style-type: none"> 1) Based on the contributions and collaboration for this assignment, should all team members get the same grade? If not, who should get a different grade (higher or lower) and why? 2) What value you did you add to the completed product? How does that compare to your teammates? 3) What can you, personally, do to improve future team collaborations? 					

XAVIER UNIVERSITY | COLLEGE OF NURSING

Revised Calendar - Spring 2020

WK	DATE	Recommended Preparation:	ASSIGNMENT	DUE DATE
1	01/16/20	Text: Part 1 (Ch 1-10): – <i>Nursing Informatics Technologies</i>	Introductions	None
2	01/23/20	Text: Part 2 (Ch 11-14) – <i>System Life Cycle (Framework, Testing, Tools, Management)</i>	Peer-Reviewed Article Review: <i>EMR vs. EHR</i>	01/23/20 (file upload)
3	01/30/20 (online)	Text: Part 3 & 4 (Ch 15, 16, 18) – <i>Theory Standards & Foundations</i> – <i>Nursing Informatics in Public Policy</i>	Peer-Reviewed Article Review: <i>Nursing Informatics and Healthcare Policy</i>	01/30/20 (Disc Board)
4	02/06/20	Text: Part 4 Chapters 19, 20) – <i>Nursing Informatics Leadership (Communication Skills, Vendors)</i>	Peer-Reviewed Article Review: <i>Research Vendors and Products for EHRs</i>	02/06/20 (file upload)
5	02/13/20	Text: Part 4 cont'd (Ch 17, 22) – <i>Nursing Informatics Leadership (IT Decision-Making, Healthcare Industry)</i>	Peer-Reviewed Article Review: <i>Nursing Leadership's role in choosing technology</i>	02/13/20 (file upload)
6	02/20/20	Prep for Individual PRESENTATIONS	Individual Presentations – <i>Smartphone App</i>	02/20/20
7	02/27/20	Prep for Individual PRESENTATIONS (cont'd)	Individual Presentations – <i>Smartphone App</i>	02/27/20
8	03/05/20	GUEST SPEAKER	Participation Credit	03/05/20
----	03/12/20	NO CLASS - SPRING BREAK		
	03/19/20 03/19/20	NO CLASS - SPRING BREAK NO CLASS – Break extended / COVID-19		
9	03/19/20 03/26/20 Zoom	Text: Part 6 (Ch 36-41) – <i>Complex Applications</i>	Peer-Reviewed Article Review: <i>Analytics in healthcare and its effect on quality improvement</i>	03/19/20 03/26/20 (file upload)
10	03/26/20 04/02/20 Zoom	Text: Part 7 (Ch 42-46) – <i>Educational Applications</i>	Peer-Reviewed Article Review: <i>Educational Applications in Informatics</i>	03/26/20 04/02/20 (file upload)
	04/09/20	NO CLASS - EASTER BREAK		
11	04/02/20 04/16/20 (online)	Text: Part 10 (Ch 51-56) – <i>International Perspectives</i>	Peer-Reviewed Article Review: <i>International Perspectives with Informatics/Technology/EHRs</i>	04/02/20 04/16/20 (Disc Board)
12	04/16/20 04/23/20 (online)	Group Work	Work on Presentations	04/16/20 04/23/20
13	04/23/20 04/30/20 Zoom	Prep for Group Presentation	Group Presentations – <i>Medical Device</i>	04/23/20 04/30/20
14	04/30/20 05/07/20 Zoom	Prep for Group Presentation	Group Presentations – <i>Medical Device</i>	04/30/20 05/07/20

Analytics in Healthcare and Quality Improvement

Ryan E. Baumgartner

NURS 754 Administrative Informatics

Xavier University | College of Nursing

Analytics in Healthcare and Quality Improvement

As pointed out by Kennedy, Bossley, Rubini, and Franklin (2015), measurements in performance quality in the American healthcare system is not a novel concept. For more than thirty years, healthcare organizations have been developing and utilizing these measurements in performance to assess the quality of care delivered with the intent to improve the delivery of healthcare services (2015). In 2011, Centers for Medicare & Medicaid Services (CMS, 2019) initiated several incentive programs that offered healthcare organizations and providers of healthcare services financial incentives based upon Meaning Use (MU) of the electronic health record (EHR). CMS uses quality measures in a variety of quality initiatives to assure that the national healthcare services provide services that are “effective, safe, efficient, patient-centered, equitable, and timely” (Kennedy et al., 2015, p. 538). These quality initiatives would ensure that the quality health care services provided to CMS Beneficiaries met specific standards through the course of an organization’s evidence of accountability and public disclosure (2015).

After this, the Department of Health and Human Services (DHHS) adopted a National Quality Strategy (NQS) set to focus on a “Triple Aim” for “better care and better health, at a lower cost” (Kennedy et al., 2015, p. 538). Under these circumstances, the impetus was set for healthcare organizations nationwide to take advantage of the EHR. Institutions were incentivized to meaningfully use their EHR to capture, identify, and organize clinical data. It was through the reporting of high-quality care measures and improvements in performance supporting MU of the EHR to generate EBP that healthcare organizations and individual providers are financially compensated (2015). Measures of performance and care delivered can be analyzed through the construct of structure, process, and outcomes by which quality in healthcare are investigated to show where gaps in the health care system exist (Donabedian, 1980). Thus, analytics in

healthcare have affected quality improvement (QI). Relatedly, an article by Batarseh and Latif (2016), identified several “Big Data” analytics and how they are applied to improve the quality of healthcare. The researchers examined how this data is collected using the EHR and other innovative Big Data tools to gain quality insights to generate evidence-based practice (EBP) (2016). The researchers performed their work using CHESS, a Big Data software dedicated to healthcare. Data was extracted from multiple government (i.e., DHHS and CMS) and private sources, saved into a repository, and used for their analytics. Innovative Big Data tools (i.e., Tableau and Pivot) were used to perform advanced statistical research (2016).

Correspondingly, a report published by McKinsey & Co. on Big Data in 2010, an estimated 30 million citizens in the US were diagnosed with chronic diabetes (DM) and hypertension (HTN) (Groves, Kayyali, Knott, & Kuiken, 2016). Ten years ago, this accounted for more than 80% of healthcare system costs (2016). A variety of cutting-edge software were used to generate predictive trends in chronic illness, specifically DM and HTN, that expected this number to increase by 10% before 2025 (Batarseh & Latif, 2016). I chose to review this article because I am a public health nurse and part of a QI team. We are required to report measures in QI as well as MU of our EHR quarterly to state and federal agencies. If regulatory requirements are not met to specific standards, we are fined, or vital funding is lost. We often focus our attention on using MU of the EHR to determine where gaps in care exist in Cincinnati. This information is reported to government agencies with a strategic plan to narrow gaps in care that often precede chronic illness. In a sentence, all of this is ventured in efforts to provide better care that is effective, safe, efficient, patient-centered, equitable, and timely aimed at improving the health of our city and nation.

References

- Batarseh, F., & Latif, E. (2016). Assessing the quality of service using big data analytics with application to healthcare. *Big Data Research*, 4, 13–24. Retrieved from <https://doi-org.nocdbproxy.xavier.edu/10.1016/j.bdr.2015.10.001>
- Centers for Medicare and Medicaid Services. (2019). *Quality measures*. Retrieved from <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityMeasures>
- Donabedian, A. (1980). *Explorations in quality assessment and monitoring*. Ann Arbor, MI: Health Administration Press.
- Groves, P., Kayyali, B., Knott, D., & Kuiken, S. (2016). *The big data revolution in healthcare: Accelerating value and innovation*. Retrieved from <http://repositorio.colciencias.gov.co/handle/11146/465>
- Kennedy, R., Bossley, R., Rubini, J., & Franklin, B. (2015). The quality spectrum in informatics. In V. Saba & K. McCormick (Eds.), *Essentials of nursing informatics* (6th edition, pp. 537-550). New York, NY: McGraw-Hill.