REGIS UNIVERSITY

COLLEGE OF COMPUTER & INFORMATION SCIENCES

Syllabus

Course Number: HIM 450
Course Title: Health Care Informatics and Information Management

Course Description:

Introduces foundational knowledge and skills to participate in the design, selection, implementation and use of clinical and administrative information systems. Familiarizes the student with new and emerging technologies in the health care field and includes concepts and principles of health care informatics in the health professions and health care delivery systems.

Prerequisite Courses:

None. Student will have an understanding of the basic concepts of computer applications, hardware, etc.

Course Outcomes:

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

(HIM Domains in parentheses)

- Manage health data (such as data elements, data sets and databases I.A.1.)
- Evaluate and implement national health information initiatives in the healthcare delivery system for application to information systems and policies and procedures (III.A.2.)
- Manage access and disclosure of personal health information (III.B.2.)
- Assist in the development of security training. (III.B.4)
- Implement and manage use of technology, including hardware and software to ensure data collection, storage, analysis and reporting of information (IV.A.1)
- Contribute to the development of networks, including intranet and internet applications to facilitate the EHR, PHR, public health and other administrative applications (IV.A.2)
- Interpret the use of standards to achieve interoperability of healthcare information systems. (IV.A.3.)
- Apply knowledge of database architecture and design - data dictionaries, data modeling and data warehousing to meet organizational needs . (IV.B.1)
- Apply appropriate electronic or imaging technology for data/record storage (IV.B.4)

- Execute plan(s) for implementing departmental service and operational systems, and information systems for patient-related data including claims and chargemaster data.(I.D.3)
- Participate in the selection, implementation and monitoring of e-Health initiatives (III.1 Knowledge cluster)
- Evaluate the effectiveness, efficiency and integrity of departmental, operational and service systems, and information systems for patient-related data in all health care delivery systems.(IV.B.3)
- Protect data integrity and validity using software or hardware technology. (IV.D.2.)
- Enforce confidentiality and security measures to protect electronic health information. (IV.D.1.)
- Participate in system selection processes (RFI and RFPs)for systems purchases and implementation.(IV.B.9)
- Perform a system's analysis and needs assessment to determine operational requirements for existing and new information systems. (IV.E.3. & 4.)
- Evaluate software packages/systems in response to user's needs. (IV.B.10)
- Recommend elements that should be included in the design and implementation of risk assessment, contingency planning, and data recovery procedures (IV.C.5)
- Protect electronic health information using appropriate security and privacy measures. (IV.C.1)
- Use and recommend data capture tools and technologies such as forms, templates, screens, etc. (Domain 1 Knowledge Cluster.)
- Recommend elements that should be included in the design of audit trails and data quality monitoring programs. (IV.C.4)
- Apply appropriate electronic or imaging technology for data/record storage. (IV.B.8.)
- Apply appropriate systems life cycle concepts, including systems analysis, design, implementation, evaluation and maintenance to the selection of healthcare information systems (IV.B.11)

Required Texts:

Hoyt, R.E. Health Informatics: Practical Guide for Healthcare and Information Technology Professionals. 6th Edition.ISBN: 978-0-9887529-2-4. Informatics Education (http://informaticseducation.org)

Pre-Assignment:

Online Format: Sign on to D2L (Home Page) and become familiar with the course navigation of the Web Curriculum.

Pre-Assignment Due Dates:

Online Format: The instructor will specify the due date for this assignment.

Course Assignments and Activities:

	Topics	Readings	Assignments and Associated Points
1	Overview of Information Systems in Health Care	In Hoyt, Read Chapters 1, 2 and 4. Review the Week 1 "Terms to Know" om the Resource Folder. View the narrated powerpoint on Health Care Systems located in the Resource Folder.	Read the Academic Integrity Policy and the HIPAA Administrative Policy, netiquette and the Meet the Faculty bio to meet your instructor. Post an introduction in the Discussion area by Wednesday of Week 1. Week 1 Discussion (5) (in addition to the introductions). Writing Assignment 1: (10) EHR Barriers & Advantages and submit by Monday midnight Week 2.
2	Health Care Systems and Data Structures	In Hoyt, read Chapter 6 on Data Standards and Medical Coding and Chapter 7 on Architecture of Information Systems. Listen to the narrated PowerPoint linked in Week 2 on CPOE and EHRs. Review the Week 2 Terms to Know in the Resource Folder. Read at least two articles on CPOE to prepare for the discussion for Week 2.	Week 2 Discussion on Denver Health (5) View the videos/take the virtual tour of Denver Health and check out the updated information.

3	HIT in Other Delivery Systems, Medical Imaging & Public Health Informatics	In Hoyt, read Chapters 19 and 21. View/access the narrated PowerPoint on Non Acute Facilities. Review the Week 3 Terms to Know in the Resource Folder.	Week 3 Discussion.(5) Practice Fusion EHR Exercise (10) Submit the answers to the questions on the last page to the dropbox. Knowledge Quiz (10)
4	Consumer Health Informatics & Medical Resources	In Hoyt, read Chapters 10, 11 and 12.	Week 4 Discussion. (5)
5	HIEs,Telemedicine & Disease Registries	In Hoyt, read Chapters 5, 15 and 18. Listen to the narrated PowerPoint on HIEs and Cybersecurity. Access your regional HIE or Colorado's at CORHIO	Week 5 Discussion.(5)
6	Privacy & Security, Safety & System Life Cycles	In Hoyt, read Chapters 8 and 17. Review the RFP linked in the Resource Folder and view the Powerpoint on Systems Design and Life Cycles	Week 6 Discussion (5) Writing Assignment 2. (10) Continue to work on Final Project. This assignment is due Saturday midnight of Week 7.
7	Ethics, Bioinformatics & Practice Guidelines	In Hoyt, read Chapters 9, 14 and 20. Go to HIMSS website linked in Week 7.	Week 7 Discussion (10) Final Project due midnight Saturday night! (25)

8	Big Data & Future Trends, Sunnyvale System Selection	In Hoyt read Chapters 3 and 22. Research new and innovative technologies.	Week 8 discussions (5) This discussion is a two part discussion. One to discuss trends and the other to discuss your selection for the Sunnyvale Project Final Quiz (25) Available Thursday through Saturday midnight
			Maximum Points Possible: 135

CC&IS Grading Scale

Letter Grade	Percentage	Grade Point
A	93 to 100	4.00
A–	90 to less than 93	3.67
B+	87 to less than 90	3.33
B	83 to less than 87	3.00
B–	80 to less than 83	2.67
C+	77 to less than 80	2.33
C	73 to less than 77	2.00
C–	70 to less than 73	1.67
D+	67 to less than 70	1.33
D	63 to less than 67	1.00
D-	60 to less than 63	.67
F	Less than 60	0

Additional information about grading can be found in the latest edition of the University Catalog, available at http://www.regis.edu/Academics/Course%20Catalog.aspx.

CC&IS Policies and Procedures

Each of the following CC&IS Policies & Procedures is incorporated here by reference. Students are expected to review this information each term, and agree to the policies and procedures as identified here and specified in the latest edition of the University Catalog, available at http://www.regis.edu/Academics/Course%20Catalog.aspx or at the link provided.

- The CC&IS Academic Integrity Policy.
- The Student Honor Code and Student Standards of Conduct.
- Incomplete Grade Policy, Pass / No Pass Grades, Grade Reports.

- The Information Privacy policy and FERPA. For more information regarding FERPA, visit the U.S. Department of Education.
- The HIPPA policies for protected health information. The complete Regis University HIPAA Privacy & Security policy can be found here: http://www.regis.edu/About-Regis-University/University-Offices-and-Services/Auxiliary-Business/HIPAA.aspx.
- The Human Subjects Institutional Review Board (IRB) procedures. More information about the IRB and its processes can be found here: http://regis.edu/Academics/Academic-Grants/Proposals/Regis-Information/IRB.aspx.

The CC&IS Policies & Procedures Syllabus Addendum summarizes additional important policies including, Diversity, Equal Access, Disability Services, and Attendance & Participation that apply to every course offered by the College of Computer & Information Sciences at Regis University. A copy of the CC&IS Policies & Procedures Syllabus Addendum can be found here: https://in2.regis.edu/sites/ccis/policies/Repository/CCIS%20Syllabus%20Addendum.docx.