



## Health Information Management

### HIM\*157 Healthcare Informatics

**Semester:** Fall 2019

**Location:** Fully Online

**Day/Time:** Assignments Due Weekly

**Instructor:** Jill Flanigan

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**Schedule an appointment:**

<https://jillflanigan.youcanbook.me>

**Office Hours [Wheaton Hall, Room 313]:** Tuesday 10 am-11 am and Wednesday 10 am-12 pm

### **Course Description (from college catalog):**

Students will learn about the role of information technology in the delivery of healthcare services. The course will begin by addressing the hardware and infrastructure to support the use of information technologies. Students will learn about the lifecycle of information systems and the HIM professional's role in system selection, design, and support. The course will address methods for ensuring the privacy and security of health information along with issues of access and usability including health information exchange. The course will cover the variety of software applications and tools used in the healthcare environment. The course will include simulation lab practice using an electronic health record.

**Course Prerequisites:** Eligible for ENG\*101 or ENG\*101E, CSC\*101 or equivalent with a "C" or better, or a "pass" on the Computer Proficiency Test administered in the MxCC Academic Success Center.

### **Importance of Course in Program/Discipline:**

**American Health Information Management Association (AHIMA) Curriculum Competencies:** The AHIMA Council for Excellence in Education developed competencies for associate degree students this course complies with the 2014 Curricula requirements. This program covers the AHIMA recommended competencies in six domains including (I) Data Content, Structure, and Standards, (II) Information Protection: Access, Disclosure, Archival, Privacy & Security, (III) Informatics, Analytics, and Data Use, (IV) Revenue Management, (V) Compliance, and (VI) Leadership. This course addresses the following AHIMA competencies (learning level this course/program goal):

- I.A.2. Evaluate the accuracy of diagnostic and procedural coding.
- I.B.1. Analyze the documentation in the health record to ensure it supports the diagnosis and reflects the patient's progress, clinical findings, and discharge status
- I.B.2. Verify the documentation in the health record is timely, complete, and accurate
- I.B.3. Identify a complete health record according to organizational policies, external regulations, and standards.
- I.B.4. Differentiate the roles and responsibilities of various providers and disciplines, to support documentation requirements throughout the continuum of healthcare
- I.C.1. Apply policies and procedures to ensure the accuracy and integrity of health data
- I.D.1. Collect and maintain health data.
- I.E.1. Identify and use secondary data sources
- II.A.1. Apply legal healthcare terminology Identify a complete health record according to organizational policies, external regulations, and standards

- II.A.2. Identify the use of legal documents
  - II.A.3. Apply legal concepts and principles to the practice of HIM
  - II.B.1. Apply confidentiality, privacy and security measures and policies and procedures for internal and external use and exchange to protect electronic health information.
  - II.B.2. Apply retention and destruction policies for health information
  - II.B.3. Apply system security policies according to departmental and organizational data/information standards.
  - II.C.1. Apply policies and procedures surrounding issues of access and disclosure of protected health information.
  - III.A.1. Utilize Software in the completion of HIM processes
  - III.A.2. Explain policies and procedures of networks, including intranet and Internet to facilitate clinical and administrative applications.
  - III.B.1. Explain the process used in the selection and implementation of health information management systems.
  - III.C.1. Explain analytics and decision support
  - III.D.1. Utilize basic descriptive, institutional, and healthcare statistics
  - III.F.1. Explain usability and accessibility of health information by patients, including current trends and future challenges.
  - III.G.1. Explain current trends and future challenges in health information exchange.
  - III.H.1. Apply policies and procedures to ensure the accuracy and integrity of health data both internal and external to the health systems.
  - V.A.1. Analyze policies and procedures to ensure organizational compliance with regulations and standards
  - V.D.1. Identify discrepancies between supporting documentation and coded data
  - VI.A.1 Summarize health information related leadership roles
  - VI.B.1. recognize the impact of change management on processes, people, and systems
  - VI.F.1. Summarize a collection methodology for data to guide strategic and organizational management.
  - VI.F.2. Understand the importance of healthcare policymaking as it relates to the healthcare delivery system
  - VI.F.3. describe the differing types of organizations, services, and personnel and their interrelationships across the health care delivery system
  - VI.F.4. Apply information and data strategies in support of information governance initiatives.
  - VI.J.1. Explain vendor/contract management
- Supporting Body of Knowledge: Computer Concepts and Applications

## Program/Discipline Learning Outcomes Contained in Course

### HIM Learning Outcomes (Competencies):

At the conclusion of this course, the Health Information Management Student will be able to:

- I.A.2. Evaluate the accuracy of diagnostic and procedural coding.
- I.B.1. Analyze the documentation in the health record to ensure it supports the diagnosis and reflects the patient's progress, clinical findings, and discharge status
- I.B.2. Verify the documentation in the health record is timely, complete, and accurate
- I.B.3. Identify a complete health record according to organizational policies, external regulations, and standards.
- I.B.4. Differentiate the roles and responsibilities of various providers and disciplines, to support documentation requirements throughout the continuum of healthcare

- I.C.1. Apply policies and procedures to ensure the accuracy and integrity of health data
  - I.D.1. Collect and maintain health data.
  - I.E.1. Identify and use secondary data sources
  - II.A.1. Apply legal healthcare terminology Identify a complete health record according to organizational policies, external regulations, and standards
  - II.A.2. Identify the use of legal documents
  - II.A.3. Apply legal concepts and principles to the practice of HIM
  - II.B.1. Apply confidentiality, privacy and security measures and policies and procedures for internal and external use and exchange to protect electronic health information.
  - II.B.2. Apply retention and destruction policies for health information
  - II.B.3. Apply system security policies according to departmental and organizational data/information standards.
  - II.C.1. Apply policies and procedures surrounding issues of access and disclosure of protected health information.
  - III.A.1. Utilize Software in the completion of HIM processes
  - III.A.2. Explain policies and procedures of networks, including intranet and Internet to facilitate clinical and administrative applications.
  - III.B.1. Explain the process used in the selection and implementation of health information management systems.
  - III.C.1. Explain analytics and decision support
  - III.D.1. Utilize basic descriptive, institutional, and healthcare statistics
  - III.F.1. Explain usability and accessibility of health information by patients, including current trends and future challenges.
  - III.G.1. Explain current trends and future challenges in health information exchange.
  - III.H.1. Apply policies and procedures to ensure the accuracy and integrity of health data both internal and external to the health systems.
  - V.A.1. Analyze policies and procedures to ensure organizational compliance with regulations and standards
  - V.D.1. Identify discrepancies between supporting documentation and coded data
  - VI.A.1 Summarize health information related leadership roles
  - VI.B.1. recognize the impact of change management on processes, people, and systems
  - VI.F.1. Summarize a collection methodology for data to guide strategic and organizational management.
  - VI.F.2. Understand the importance of healthcare policymaking as it relates to the healthcare delivery system
  - VI.F.3. describe the differing types of organizations, services, and personnel and their interrelationships across the health care delivery system
  - VI.F.4. Apply information and data strategies in support of information governance initiatives.
  - VI.J.1. Explain vendor/contract management
- Supporting Body of Knowledge: Computer Concepts and Applications

### **Designated TAP Learning Outcomes (Competencies) of the Course**

#### **Continuing Learning/Information Literacy (D)**

1. Demonstrate competency in using current, relevant technologies to solve problems, complete projects, and make informed decisions.
2. Access, navigate, identify and evaluate information that is appropriate for their need(s) and audience(s).

3. Synthesize information to broaden knowledge and experiences and produce both independent and collaborative work.

4. Evaluate the economic, legal, ethical, and social issues surrounding the access and use of information and relevant technologies.

### **Textbooks and other required reading/computer software/materials/library reserve:**

Biedermann, S, Dolezal, D. (2017) *Introduction to Healthcare Informatics*, Second Edition, AHIMA Press. ISBN 9781584265283

Foley, D. *Health Information Management Case Studies*. AHIMA Press, ISBN: 9781584264583

Archetype Innovations. (2014) *EHR Go*. ISBN: 9780985837983

### **Methods of Instruction:**

Learning will be achieved through use of textbook readings, lecture slides, online videos, library resources, web-based EHR application and web links. Resources will be posted to the Blackboard Course space. Students may submit questions about course materials through online discussion boards or may visit me during office hours. It is important to read all the assigned material and view any video resources posted to the Blackboard Course.

### **Mobile Users:**

Some course content as presented in Blackboard Learn is not fully supported on mobile devices at this time. While mobile devices provide a convenient access to check in and read information about your courses, they should not be used to perform work such as taking tests, completing assignments or submitting substantive discussion posts.

### **Communication Plan:**

These are my expectations for electronic communication:

- I will remove posts that I determine to be inappropriate or unprofessional.
- Post all questions regarding course readings, assignments, or assessments to the Discussion Board. Please use email (course messages) \*ONLY\* when the subject is of a personal and confidential matter. If the question you ask is of a nature that even one other person in the course could benefit from the answer, post the question in the appropriate discussion board forum.
- The writing style of discussion boards should be formal and business-appropriate, including citation of sources. Use APA Style for written submissions in this course [www.apastyle.org](http://www.apastyle.org).

### **Technology and Social Media:**

- Students should not mix personal and academic/professional contacts and accounts when using social media. Students should create social media accounts specifically for professional/academic use to separate their personal online persona from their professional/academic work.
- The college assigns and e-mail account to all students. I will communicate with students through course e-mail or through e-mail directly to the student's Middlesex Community College e-mail address.

- I will not accept requests to connect with students from my personal social media accounts. I have a LinkedIn account for professional use, and I will accept requests to connect from students who have set up a professional LinkedIn account. I will delete that connection if the LinkedIn activity contains unprofessional content.

### Course Evaluation and Grading:

- Use APA Style for written submissions in this course.
- All assignments, discussions, papers, and exams must be submitted **on time**. Any item not submitted by the due date will receive a zero.

Discussion	24%	11	x	20 Points	= 220 points
Assignments	71%	33	x	varies	= 564 points
Final Exam	12%	1	x	66 Points	= 66 points
Final Paper	15%	1	x	20 + 30+ 100	= 150 Points
Total	100%				= 1000 Points

### Discussion Board Grading Rubric:

Requirements for the discussion board: If you simply post your thoughts on the topic and do not read the posts of other students, comment, and reply to comments on your posts, you are not engaging in the conversation and you will not receive full credit for your post. If you do not post by the due date, you will receive a zero. Posts created after Sunday 11:59pm will receive no credit. Your first post each week will be due by Wednesday 11:59pm and the subsequent responses will be due by Sunday 11:59pm each week. The content of your initial post and your responses should be well-developed, meant to engage others in conversation, and should include citation of sources when appropriate. the content of your posts will be judged using the following rubric:

	0% No Credit	50% Partial Credit	75% Partial Credit	100% Full Credit
Timing 20%	Failed to post by Sunday 11:59 pm	Missed Wednesday 11:59 pm deadline for initial post or missed Sunday 11:59 pm deadline for second post.	Initial post by Wednesday and second post by Sunday.	Initial post by Wednesday and second post by Sunday.
Content 60%	No Post	Minimal response to the module question.	Posting responds to the question but does not stimulate further class discussion.	Posting fully addresses the module question and stimulates at least one substantial follow-up posting
Grammar & Citation 20%	Failure to cite sources	Error in citation of sources or significant grammar/spelling errors.	Minor grammar or spelling errors, correct citations	Correct grammar, spelling, citations

The final grade will be evaluated as a percentage and will translate into letter grades as follows:

Letter Grade	Percent Grade
A	93.0-100.0
A-	90.0-92.9
B+	87.0-89.9
B	83.0-86.9
B-	80.0-82.9
C+	77.0-79.9
C	73.0-76.9
C-	70.0-72.9
D+	67.0-69.9
D	63.0-66.9
D-	60.0-62.9
F	Less than 60.0

### Attendance Policy:

Attendance in face-to-face courses and regular activity in online courses is essential to student success. If you have decided not to continue in a course, do not simply stop attending. You need to withdraw officially. Only students who withdraw from class will receive a grade of W. Otherwise, students will receive the grade they have earned.

### Additional Syllabus Information and College Policies:

For information about the college's policies and procedures regarding academic honesty, accessibility/disability services, non-discrimination, attendance, audio-recording in the classroom, grade appeals, plagiarism, religious accommodations, weather/emergency closings, and more, please go to the following website: <https://mxcc.edu/catalog/academic-policies/>

**Course Schedule**

Unit/Week	Course Outcomes/Unit Objectives	Reading/Assignments/Tests
Unit 1 / 8/27 – 9/1 <ul style="list-style-type: none"> <li>• Foundations of Healthcare Informatics</li> <li>• Information Infrastructure</li> <li>• Implementing Healthcare Information Systems</li> <li>• Introduction to EHR Go!</li> </ul>	<b>Outcomes:</b> <b>III.A.2. Explain policies and procedures of networks, including intranet and Internet to facilitate clinical and administrative applications.</b>	<ol style="list-style-type: none"> <li>1. Read <i>Introduction to Healthcare Informatics</i>: Chapter 1, Chapter 4, Chapter 8</li> <li>2. Discussion: Networks [pg.138 #6, 7, 8] (III.A.2.) 20pts.</li> <li>3. Create EHRGo! account and view student instructions.</li> <li>4. Assignment: EHR Go! EHR Orientation 20pts.</li> <li>5. Assignment: EHR Go! Documentation Standards 15pts.</li> </ol>
Unit 2 / 9/2 – 9/8 <ul style="list-style-type: none"> <li>• Healthcare Informatics and Decision Support</li> <li>• Introduction to Research</li> </ul>	<b>Outcomes:</b> <b>I.D.1. Collect and maintain health data.</b> <b>III.D.1. Utilize basic descriptive, institutional, and healthcare statistics</b>	<ol style="list-style-type: none"> <li>1. Read <i>Introduction to Healthcare Informatics</i>: Chapter 9, Chapter 7</li> <li>2. Discussion: Screen design (I.D.1.) 20pts.</li> <li>3. Assignment: EHR Go! The Power of the EHR (I.D.1.) (III.D.1) 15pts</li> <li>4. Assignment: EHR Go! Introductory Evaluation 10pts.</li> </ol>

Unit/Week	Course Outcomes/Unit Objectives	Reading/Assignments/Tests
Unit 3 / 9/9 – 9/15 <ul style="list-style-type: none"> <li>• Data and Information</li> </ul>	<b>Outcomes:</b> <b>I.B.3. Identify a complete health record according to organizational policies, external regulations, and standards.</b> <b>I.C.1. Apply policies and procedures to ensure the accuracy and integrity of health data</b> <b>II.A.1. Apply legal healthcare terminology</b> <b>Identify a complete health record according to organizational policies, external regulations, and standards</b> <b>V.D.1. Identify discrepancies between supporting documentation and coded data</b>	<ol style="list-style-type: none"> <li>1. Read Introduction to Healthcare Informatics: Chapter 5</li> <li>2. Discussion: Medical Staff By-laws and Documentation Requirements. (I.C.1.) 20 pts</li> <li>3. Assignment: EHR Go! Health Information Terminology (II.A.1.) 15pts</li> <li>4. Assignment: EHR Go! UHDDS and the EHR (I.B.3.) (V.D.1.) 15pts.</li> </ol>
Unit 4 / 9/16 – 9/22 <ul style="list-style-type: none"> <li>• Security for Health Information</li> </ul>	<b>Outcomes:</b> <b>I.B.1. Analyze the documentation in the health record to ensure it supports the diagnosis and reflects the patient's progress, clinical findings, and discharge status</b> <b>I.B.2. Verify the documentation in the health record is timely, complete, and accurate</b> <b>I.D.1. Collect and maintain health data.</b> <b>III.H.1. Apply policies and procedures to ensure the accuracy and integrity of health data both internal and external to the health systems.</b>	<ol style="list-style-type: none"> <li>1. Read Introduction to Healthcare Informatics: Chapter 13</li> <li>2. Discussion: Data mapping (I.D.1.) 20pts</li> <li>3. Assignment: EHR Go! Case Study Review (III.H.1.) 15pts.</li> <li>4. Assignment: Go! Introduction to Chart Deficiencies (I.B.2.) (I.B.1.) 20pts.</li> </ol>
Unit 5 / 9/23 – 9/29 <ul style="list-style-type: none"> <li>• Electronic Health Records</li> </ul>	<b>Outcomes:</b> <b>I.B.1. Analyze the documentation in the health record to ensure it supports the diagnosis and reflects the patient's progress, clinical findings, and discharge status</b> <b>VI.B.1. recognize the impact of change management on processes, people, and systems</b>	<ol style="list-style-type: none"> <li>1. Read Introduction to Healthcare Informatics: Chapter 3</li> <li>2. Discussion: Change Management (VI.B.1.) 20pts</li> <li>3. Assignment: EHR Go! Analyzing for Chart Deficiencies (I.B.1) 15pts</li> </ol>



Unit/Week	Course Outcomes/Unit Objectives	Reading/Assignments/Tests
Unit 6 / 9/30 – 10/6 <ul style="list-style-type: none"> <li>• Accuracy &amp; Integrity</li> <li>• Compliance</li> <li>• Clinical Decision Support</li> </ul>	<b>Outcomes:</b> <b>I.A.2. Evaluate the accuracy of diagnostic and procedural coding.</b> <b>I.C.1. Apply policies and procedures to ensure the accuracy and integrity of health data (3/3)</b> <b>V.A.1. Analyze policies and procedures to ensure organizational compliance with regulations and standards</b>	<ol style="list-style-type: none"> <li>1. Assignment: Go! Quality Improvement Utilizing the EHR (I.C.1.)(V.A.1.) 15pts</li> <li>2. Assignment: Go! Communication in the EHR (I.A.2.) 15pts</li> <li>3. Assignment: EHR Go! Introduction to Clinical Reminders 15pts</li> </ol>
Unit 7 / 10/7 – 10/13 <ul style="list-style-type: none"> <li>• Understanding Databases</li> <li>• Information Governance</li> <li>• Data Analytics</li> </ul>	<b>Outcomes:</b> <b>VI.F.4. Apply information and data strategies in support of information governance initiatives.</b>	<ol style="list-style-type: none"> <li>1. Read Introduction to Healthcare Informatics: Chapter 6</li> <li>2. Assignment: Information Governance (VI.F.4.) 20pts</li> <li>3. Assignment: Case Study 6.54 Data Stewardship (VI.F.4.) 10pts</li> <li>4. Assignment: EHR Go! Orientation to Data Analytics I 20pts</li> </ol>
Unit 8 / 10/14 – 10/20 <ul style="list-style-type: none"> <li>• Health Information Interoperability</li> <li>• Data Analytics</li> <li>• EHR Implementation</li> </ul>	<b>Outcomes:</b> <b>VI.F.1. Summarize a collection methodology for data to guide strategic and organizational management.</b> <b>VI.F.2. Understand the importance of healthcare policy-making as it relates to the healthcare delivery system</b> <b>VI.F.3. describe the differing types of organizations, services, and personnel and their interrelationships across the health care delivery system</b>	<ol style="list-style-type: none"> <li>1. Read Introduction to Healthcare Informatics: Chapter 10</li> <li>2. Assignment: Go! HITECH and the History of EHRs (VI.F.2.) (VI.F.3.) 15pts</li> <li>3. Assignment: EHR Go! EHR Implementation (VI.F.1.) 30pts</li> <li>4. Assignment: EHR Go! Applied Data Analytics II 25pts</li> </ol>
Unit 9 / 10/21 – 10/27 <ul style="list-style-type: none"> <li>• Data Analytics</li> <li>• Data Visualization</li> <li>• Security of Health Information</li> </ul>	<b>Outcomes:</b> <b>I.B.4. Differentiate the roles and responsibilities of various providers and disciplines, to support documentation requirements throughout the continuum of healthcare</b>	<ol style="list-style-type: none"> <li>1. Discussion: Role-based Access (I.B.4.) 20pts</li> <li>2. Assignment: EHR Go! Applied Data Analytics III 35pts</li> <li>3. Assignment: EHR Go! Orientation to Data Visualization IV 15pts</li> <li>4. Final Paper: Select topic for informatics paper 20pts</li> </ol>

Unit/Week	Course Outcomes/Unit Objectives	Reading/Assignments/Tests
Unit 10 / 10/28 – 11/3 <ul style="list-style-type: none"> <li>• Using Healthcare Data and Information</li> <li>• Trends and Emerging Technologies</li> <li>• Clinical Decision Support</li> <li>• Data Standards</li> </ul>	<b>Outcomes:</b> <b>I.C.1. Apply policies and procedures to ensure the accuracy and integrity of health data</b> <b>I.E.1. Identify and use secondary data sources</b> <b>III.C.1. Explain analytics and decision support</b> <b>III.G.1. Explain current trends and future challenges in health information exchange.</b>	<ol style="list-style-type: none"> <li>1. Read Introduction to Healthcare Informatics: Chapter 11, Chapter 16</li> <li>2. Discussion: Data Standards (I.C.1) 20pts</li> <li>3. Assignment: Decision Support: EHR Go! Clinical Reminder Data Visualization V (III.C.1.) 25pts</li> <li>4. Assignment: EHR Go! Health Information Exchange (I.E.1.)(III.G.1.) 15pts</li> </ol>
Unit 11 / 11/4 – 11/10 <ul style="list-style-type: none"> <li>• Legal Health Records</li> <li>• Classification and Terminology</li> <li>• HIM Leadership</li> </ul>	<b>Outcomes:</b> <b>III.B.1. Explain the process used in the selection and implementation of health information management systems.</b> <b>VI.A.1 Summarize health information related leadership roles</b>	<ol style="list-style-type: none"> <li>1. Read Introduction to Healthcare Informatics: Chapter 14</li> <li>2. Discussion: Commercial EHR Vendors (III.B.1.) 20pts</li> <li>3. Assignment: EHR Go! Classification and Terminology Systems 15pts</li> <li>4. Case Study 6.0 Evolving leadership roles in HIM (VI.A.1) 24pts</li> </ol>
Unit 12 / 11/11 – 11/17 <ul style="list-style-type: none"> <li>• Security of Health Information</li> <li>• Health Information Exchange</li> </ul>	<b>Outcomes:</b> <b>II.B.3. Apply system security policies according to departmental and organizational data/information standards.</b> <b>III.G.1. Explain current trends and future challenges in health information exchange.</b> <b>VI.J.1. Explain vendor/contract management</b>	<ol style="list-style-type: none"> <li>1. Discussion: Vendors and Security (VI.J.1.) 20pts</li> <li>2. Assignment: Health Information Exchange in Connecticut (III.G.1.) 20pts</li> <li>3. Assignment: Case Study 2.26 (II.B.3.) 10pts</li> <li>4. Assignment: Case Study 2.33 (II.B.3.) 15pts</li> </ol>

Unit/Week	Course Outcomes/Unit Objectives	Reading/Assignments/Tests
Unit 13 / 11/18 – 11/24 <ul style="list-style-type: none"> <li>• Privacy for Health Information</li> <li>• Consumer Health Informatics</li> <li>• Release of Information</li> <li>• Accounting of Disclosures</li> </ul>	<b>Outcomes:</b> <b>II.A.2. Identify the use of legal documents</b> <b>II.A.3. Apply legal concepts and principles to the practice of HIM</b> <b>II.B.1. Apply confidentiality, privacy and security measures and policies and procedures for internal and external use and exchange to protect electronic health information.</b> <b>II.B.2. Apply retention and destruction policies for health information</b> <b>II.C.1. Apply policies and procedures surrounding issues of access and disclosure of protected health information.</b> <b>III.F.1. Explain usability and accessibility of health information by patients, including current trends and future challenges.</b>	<ol style="list-style-type: none"> <li>1. Read Introduction to Healthcare Informatics: Chapter 12, Chapter 15</li> <li>2. Discussion: Innovation in Consumer Healthcare Informatics (III.F.1.) 20pts</li> <li>3. Assignment: Go! Release of Information (II.A.2.) (II.A.3.) (II.B.1.) (II.C.1.) 15pts</li> <li>4. Assignment: Go! ROI and Accounting of Disclosures (II.B.1.) (II.B.2.) 15pts</li> <li>5. Final Paper: Informatics paper due 100 pts</li> </ol>
Unit 14 -15 / 11/25 – 12/8 <i>Thanksgiving break is 11/27-12/1</i> <ul style="list-style-type: none"> <li>• Ethics</li> <li>• Clinical Decision Support</li> <li>• Accreditation</li> </ul>	<b>Outcomes:</b> <b>I.B.4. Differentiate the roles and responsibilities of various providers and disciplines, to support documentation requirements, throughout the continuum of healthcare</b> <b>III.A.1. Utilize Software in the completion of HIM processes</b>	<ol style="list-style-type: none"> <li>1. Read Introduction to Healthcare Informatics: Chapter 2</li> <li>2. Discussion: Informatics paper 20pts</li> <li>3. Assignment: Go! Understanding TJC's TRACER Methodology (I.B.4.) (III.A.1) 15pts</li> <li>4. Assignment: Go! Cause and Effect: CDS Evaluation (I.B.4.) 30pts</li> <li>5. Final Paper: Submit Informatics Presentation 30 points</li> </ol>
Final Exam  12/9 – 12/14	<i>Final Exam due by 11:59pm Saturday, 12/14/2019</i>	<ol style="list-style-type: none"> <li>1. Final Exam 50pts</li> </ol>