



OWENS
COMMUNITY COLLEGE

**Course Syllabus
SEMESTER**

School of Nursing and Health Professions

Course Name:	Health Care Information Systems
Course & Section Number:	HIT 237-XXX
Credits:	2
Contact Hours:	2
Textbook:	Sayles, Nanette & Trawick, Kathy. Introduction to Computer Systems for Health Sayles, Nanette. Health Information Management Technology- An Applied Approach. 6th Edition. American Health Information Management Association. Foley, D. M. (2020). <i>Health Information Management Case Studies</i> . 3rd Edition. American Health Information Management Association.
Instructor's Name:	
Office Hours & Location:	Please reach out via email as needed
OCC Phone:	N/A
OCC Email: **	

Please call me (name) ; it is my preferred name. If you have a preferred name, please let me know so that I can use it. My pronouns are she and her. Please let me know yours so that I can use them.

****Please only use your student OCC email to contact me.**

CATALOG DESCRIPTION:

A comprehensive review of the electronic health record and its applications in Health Information Management. A review of hardware components, systems architectures, operating systems, and software packages and tools, along with the use of the electronic health record are explored. Health Information Management processes with data, information and file structures, as well as data storage, retrieval, privacy and security are addressed.

COREQUISITE: HIT 234, HIT 243, HIT 246, HIT 248, HIT 296

PREREQUISITES: HIT 223, HIT 232, HIT 235, HIT 241, HIT 242, IST 132

Current Textbooks, Materials, Equipment:

Sayles, Nanette & Trawick, Kathy. Introduction to Computer Systems for Health Information Technology. 4th Edition. American Health Information Management Association.

Sayles, Nanette. Health Information Management Technology- An Applied Approach. 6th Edition. American Health Information Management Association.

Foley, D. M. (2020). *Health Information Management Case Studies*. 3rd Edition. American Health Information Management Association.

What You Will Learn in the Course

COURSE OBJECTIVES:

This course will:

1. Review and discuss the basic components of computer hardware, software and network architecture as it relates to the electronic health record.
2. Provide the student with the knowledge of national and state legal and regulatory rules related to the legality (privacy, security, access) of the electronic health records.
3. Illustrate administrative and clinical information systems.
4. Demonstrate HIM Processes and the electronic health record.
5. Explain data integrity, data quality, and the types of controls available to ensure these are protected.
6. Teach the ability to manage data, information and file structures.
7. Discuss current issues related to electronic health record deployment: Personal health records, regional health information organizations

Student Learning Outcomes:

The following Domains of the Health Information Technology Profession will be addressed in this course:
The student will:
Domain II. Information Protection: Access, Use, Disclosure, Privacy, and Security
II.2 Apply security strategies to health information.
II.3 Identify compliance requirements throughout the health information life cycle.
Domain III. Informatics, Analytics, and Data Use
III.1 Apply health informatics concepts to the management of health information.
III.2 Utilize technologies for health information management.
III.4 Report health care data through graphical representations
III.6 Describe the concepts of managing data 3
III.7 Summarize standards for the exchange of health information.
III.6 (DM ONLY) Manage data within a database system.
III.7 (DM ONLY) Identify standards for exchange of health information.

CAHIIM Outcomes:

8.2 Compliance Audits and Risk Management

Academic Support

Disability Services Resource Center: If you have a disability or acquire one, you may be entitled to receive reasonable accommodations intended to assure you an equal opportunity to participate in and benefit from the program. To receive more information or to register for accommodations, please contact the Disability Resource Center at 567-661-7007, email disability@owens.edu, visit <https://www.owens.edu/disability/>, or stop by College Hall 124.

Tutoring Services: Owens Community College offers academic tutoring and assistance in a variety of subjects including: accounting, computing, economics, mathematics, science, and writing. For more information go to: <https://www.owens.edu/successcenters/>.

Counseling Services: Counseling Services provides assistance to students experiencing personal, educational, interpersonal/relationship, family, social, or psychological difficulties. If you feel you may benefit from this service, please contact them at counselingservices@owens.edu. More information is at <https://www.owens.edu/counseling/>.

Campus and Community Connections: The Center for Campus and Community Connections (College Hall 123) is a walk-in office created to provide retention support through resource stability initiatives and community connections. Go here for more information: <https://www.owens.edu/connection/> or contact connections@owens.edu

Owens Library: The Owens Library offers two locations (Toledo and Findlay) as well as online resources. For more information visit <https://www.owens.edu/library/>.

Students can find more information on campus resources, student support, student life, and security at this [link](#).

General Information

Student Code of Conduct: All students are expected to follow Owens Community College's [Student Code of Conduct](#), which includes academic honesty, encompassing plagiarism. See the [Board Policy](#) for more information.

Anti-Discrimination and Harassment & Title IX/Sexual Misconduct: All students, faculty, and staff are expected to follow Owens Community College's [Anti-Discrimination and Harassment Policy](#) and the College's [Title IX Policy](#)/Sexual Misconduct Procedures and Guidelines. The College strictly prohibits and will not tolerate harassment, discrimination, intimidation, or hostile/offensive working or learning environments.

Religious Accommodations: A student seeking an accommodation for an absence permitted under Ohio's Testing Your Faith Act must provide the instructor with a written email notice with the specific dates for an absence, and must do so not later than fourteen (14) days after the first day of instruction. Alternative accommodations are not retroactive, and no academic penalty will be imposed for an absence under the policy*. The request for an alternative accommodation will be kept confidential. Students with questions about a religious accommodation under Ohio's Testing your Faith Act may contact the College's Office of Academic Affairs: provost@owens.edu

The policy may be found on the Owens website: [3358:11-2-63 Accommodation](#) for a Student Absence for the Observance of Religious Beliefs and Practices Policy

Document Collection: Throughout the semester, your instructors may ask for a variety of assignments including tests and/or quizzes for student learning of institutional general education competencies or program assessment. Please save all your class materials until the end of the semester.

Use of AI Tools: This course permits you to use artificial intelligence (AI) tools, such as chatbots, text generators, paraphrasers, summarizers, or solvers, to get guidance on assignments, as long as you do so in an ethical and responsible manner. Essentially, you can think of these tools as ways to help you learn but not to

entirely create work for assignments like discussion board posts, essays, presentation slides, and so on. AI is more like your tutor or TA, not a replacement for your independent thinking.

This means that you must:

- Not use AI tools to replace your own thinking or analysis or to avoid engaging with the course content.
- Cite or explain any AI tools you use. Provide the name of the AI tool, the date of access, the URL of the interface, and the specific prompt or query you used to generate the output.
- Be transparent and honest about how you used the AI tool and how it contributed to your assignment. Explain what you learned from the AI tool, how you verified its accuracy and reliability, how you integrated its output with your own work, and how you acknowledged its limitations and biases.

You are accountable for any mistakes or errors made by the AI tool. Always check and edit the output before submitting your work. If you discover any inaccuracies or inconsistencies in the output after submission, notify the instructor immediately and correct them as soon as possible.

Using AI tools in an unethical or irresponsible manner, such as copying or paraphrasing the output without citation or transparency, using the output as your own work without verification or integration, or using the output to misrepresent your knowledge or skills, is considered a form of academic dishonesty and will result in a zero grade for the assignment and possible disciplinary action. If you have any questions about what constitutes ethical and responsible use of AI tools, please consult with the instructor **before** submitting your work.

NOTE: Some instructors will also list specific acceptable and unacceptable uses or include a statement like “All written assignments, projects, and exams must be completed independently.”

Classroom Admittance:

OCC classes (e.g., traditional, land-based, laboratory, hybrid, asynchronous online, synchronous online, etc.) shall only be attended by the officially registered OCC students, instructor of record, guest lecturer, or substitute. Visitors are not permitted in the classroom and should not be invited to attend or participate in the class. See [FERPA](#) for specifics.

Student Responsibilities & Instructor Expectations

Student Responsibilities:

- To e-mail the instructor immediately with any questions regarding class procedure, assignments, or grades.
- To view the class on-line regularly (at least every other day, if not every day). A student who does not attend regularly may experience considerable difficulty. Regular attendance is essential in this class.
- It is your responsibility to learn of any announcements concerning assignments or changes from the syllabus.

Classroom Attendance for WEB Classes:

SWD: for all Synchronous Web Delivery Classes, the student must attend this class during the days and times set in the schedule. Example: for a 9:00, M, W SWD class, the student must be online at 9:00 every Monday and Wednesday for this class.

- **Web cameras:** In a synchronous course, we have a unique opportunity to interact with each other in real time that is not available in a traditional online course. I will have my camera on and invite you to do the same to build a positive class experience for everyone. You may choose to turn your camera on to introduce yourself, ask questions, and/or respond to questions. Your instructor may request you to use your camera and/or show your ID in certain situations, such as at the beginning of a class, when responding to questions or participating in a discussion, during exams, or for an oral presentation. If applicable, your

instructor may assist students in blurring their backgrounds. Our online classroom is a safe environment, and we encourage you to fully participate.

For any changes, students must talk with their instructors and advisors.

Technology, Lab Requirements, & Files:

The Blackboard Learning System is an online course environment available for all Owens courses, even those that are not web-based. Blackboard offers students a resource where they can communicate and collaborate with instructors and fellow students outside of the physical classroom. The Health Information Technology Department integrates Blackboard into each course and it is essential for all students to become familiar with the system. Check the STUDENT HELP AND RESOURCES tab on the blackboard shell for information on technical support and Software/Hardware requirements for utilizing Blackboard to complete assignments and communicate with peers and faculty.

What Will Our Classroom Environment Be Like?

Respectful Class Communication:

Our classroom is a safe space. Faculty and students show respect for each other in class and all communication. There is also a short power point on the Blackboard info tab regarding polite, professional email communication.

Social Media Use:

The use of YouTube, Facebook, Instagram, Twitter, or any other internet share site to distribute any course, campus lab, or clinical photos, audio recordings, or video recordings is strictly prohibited unless written permission is received from all people involved. Using these sites to display comments about faculty, peers, staff, and/or patients is in conflict with our Inclusion Statement. Such comments may result in disciplinary action. Written permission involves completion of "OWENS COMMUNITY COLLEGE CONSENT FORM".

METHOD OF EVALUATIONS:

GRADING SYSTEM:

<u>Grading Distribution</u>	<u>Weighted Distribution</u>
Assignments	15%
Discussion Boards	5%
Case Studies	25%
Glossary	10%
Quizzes & Midterm	20%
Final Exam	<u>25%</u>
	100%

The Grading Scale

A = 93% -100%
B = 85% - 92%
C = 75% - 84%
D = 60% - 74%
F = 0% - 59%

Evaluation Methods:

Reading/Power Point Lectures
Discussion Board
Case Studies/Review Questions/Student Projects
Storyboard Project
Key Words

RESPONDING to E-MAIL:

In a web course, e-mail becomes a very important means of communication. I am not always online, but will try to respond to your messages as quickly as possible. Here are some general guidelines for my e-mail response time:

- Monday through Thursday: Within **24** hours
- Friday, Saturday, and Sunday: Within **48** hours

ACADEMIC HONESTY:

Evidence of a deliberate and calculated plan to engage in a dishonest academic practice such as gaining access to examinations prior to the exam time or the extraction of information regarding an examination from other students.

You can be given an “F” for the class and even expelled from school if you are caught cheating.

Academic Assistance and Support

A combination of services is provided to students to both enhance the educational experience and improve student growth. Included but not limited to:

1. Library Services
2. Testing Center
3. Tutoring
4. Writing Center
5. HIT Computer Labs, HT 304 and HT 305, are for program students only. Please check the open lab schedule posted outside the labs.

HIT 237-XXX Health Care Information Systems
Assignment Calendar/Schedule

Week/ Date	Topic	Assignments
Week 1 DATE	Review Your Syllabus Chapter 1: Introduction to Computers in Health Information Management - Identify the impact of computers in healthcare. - Discuss the history of computers in healthcare. - Compare and contrast the similarities and differences among the Internet, intranet, and extranet as used in healthcare. - Explain data analytics in health informatics and how information systems (ISs) apply. Chapter 2: Information Integrity and Data Quality - Identify the various data sources that populate the electronic health record. - List and give an example of each of the AHIMA data quality management model characteristics. - Choose the appropriate field type for a data element. - Make recommendations to address data quality and data integrity issues. Health Information Management Technology, An Applied Approach 5th Ed. Chapter 6: Data Management, pages 156 – 159 Chapter 10: Data Security, pages 254, 273	<u>Discussion Board: Introduction</u> <u>Health information Management Case Studies. 3rd Ed.</u> <u>Case Study 1.11: Health Record Completion</u> Due Date: DATE at TIME <u>Quality Attributes of a Health Record</u> Due Date: DATE at TIME <u>Week 1 – Week 14: Glossary Table: Semester Project Assignment</u> Due Date: DATE at TIME
Week 2 DATE	Chapter 1: Introduction to Computers in Health Information Management (Continued) Chapter 2: Information Integrity and Data Quality (Continued)	<u>Health information Management Case Studies. 3rd Ed.</u> <u>Case Study 1.38: Data Quality Management</u> Due Date: DATE at TIME
Week 3 DATE	Chapter 3: Databases - Assist in the development of a database. - Develop and manage the data dictionary. - Develop queries to retrieve data contained in the database.	<u>Databases Worksheet</u> Due Date: DATE at TIME <u>Data Normalization</u> Due Date: DATE at TIME

	• Read and understand an entity-relationship diagram. • Identify the primary key contained in an entity. • Differentiate between a data repository and a data warehouse. • Expound on the ways that data mining can be useful. • Complete simple normalization of data • Differentiate between the various types of data. Health Information Management Technology, An Applied Approach 5th Ed. Chapter 6: Data Management, page 153+	<u>Glossary Table Semester Project:</u> Due Date: DATE at TIME
Week 4 DATE	Chapter 3: Databases (Continued)	<u>Health information Management Case Studies. 3rd Ed.</u> <u>Case Study 1.35: Data Dictionary</u> Due Date: DATE at TIME <u>Data Dictionary Lesson</u> Due Date: DATE at TIME <u>Cancer Reporting Project</u> Due Date: DATE at TIME
Week 5 DATE	Chapter 4: System Selection • Identify the steps in the system selection process. • Develop the request for proposal. • Explain how the decision matrix will assist in the most appropriate selection for the healthcare entity. • Collect data to be used in the system analysis process. Health Information Management Technology, An Applied Approach 5th Ed. Chapter 11: Health Information Technologies	<u>SDLC Table & SDLC/CAC Table</u> Due Date: DATE at TIME <u>Evaluate CAC Systems/RFI</u> Due Date: DATE at TIME
Week 6 DATE	Chapter 4: System Selection (Continued)	<u>Real World Case Study – Floribama Hospital</u> Due Date: DATE at TIME <u>Case Study 3.25: Strategic Planning</u> Due Date: DATE at TIME <u>Glossary Table Semester Project:</u> Due Date: DATE at TIME

Week 7 DATE	Chapter 5: System Implementation - Identify the steps in system implementation. - Make recommendations for the testing and implementation of the information system. - Develop training materials and conduct training classes for users. - Recommend conversion needed for data being transferred from existing system. Health Information Management Technology, An Applied Approach 5th Ed. Chapter 11: Health Information Technologies	<u>Real World Case Study:</u> <u>Implementing a New EHR</u> Due Date: DATE at TIME <u>Health information Management Case Studies. 3rd Ed.</u> <u>Case Study 1.9: Screen Design Evaluation</u> Due Date: DATE at TIME <u>Chapter 5 Quiz covers the system implementation material and also Chapter 11 in the Health Information Management Technology textbook.</u> Due Date: DATE at TIME <u>Glossary Table Semester Project:</u> Due Date: DATE at TIME
Week 8 DATE	Chapter 6: Computers in HIM - Identify the information systems needed to support efficient operations in the HIM department. - Differentiate between the various software products used in the HIM department. - Improve the quality of the data within the HIM systems Chapter 7: Administrative Information Systems - Determine what administrative information system is needed for a particular task - Differentiate among the administrative information systems. - Differentiate between a decision support system and an executive information system. - Describe how administrative systems impact health information management practices. Chapter 8: Clinical Information Systems - Differentiate between the various clinical information systems. - Define clinical information system. - Determine what clinical information system is needed to meet the needs of the healthcare facility.	<u>HIM, Clinical and Administrative Systems</u> Due Date: DATE at TIME <u>Midterm Exam: Consisting of T/F, Multiple Choice, and Matching.</u> Due Date: DATE at TIME <u>Glossary Table Semester Project:</u> Due Date: DATE at TIME

	• Make recommendations on the use and implementation of document management systems. Health Information Management Technology, An Applied Approach 5th Ed. Chapter 3: Health Information Functions, Purpose, and Users: Pages 68 - 76	
Week 9 DATE	Chapter 9: Electronic Health Record (EHR) • Create development and implementation plan for an EHR. • Explain the role of clinical vocabularies in the EHR. • Support the need for and address issues related to the EHR. • Educate the provider on benefits of the EHR. • Prepare for the health information exchange. • Identify the need for the multiple information systems required to support the EHR. • Support the need for the personal health record. Health Information Management Technology, An Applied Approach 5th Ed. Chapter 3: Health Information Functions, Purpose, and Users: Pages 68 - 76	<u>Chapter 9 Worksheet</u> Due Date: DATE at TIME <u>Real World Case Study: The EHR and Patient Portal</u> Due Date: DATE at TIME <u>Glossary Table Semester Project:</u> Due Date: DATE at TIME
Week 10 DATE	Chapter 10: Consumer Informatics • Explain consumer informatics. • Differentiate between the patient portal and a personal health record. • Explain impact of health literacy on patients Health Information Management Technology, An Applied Approach 5th Ed. Chapter 11: Health Information Technologies: Page 305 Chapter 12: Healthcare Information Pages 331 - 332	<u>Discussion Board #1: Consumer Informatics</u> Due Date: DATE at TIME <u>Discussion Board #2: Physician Visit</u> Due Date: DATE at TIME <u>Real-World Case: Health Literacy</u> Due Date: DATE at TIME <u>Glossary Table Semester Project:</u> Due Date: DATE at TIME
Week 11 DATE	Chapter 11: Health Information Exchange • Illustrate why the health information exchange (HIE) is a positive step for healthcare. • Describe the role and function of the health information organization (HIO) in the HIE efforts.	<u>Real-World Case: E-Prescribe Controlled Substances (EPCS)</u> Due Date: DATE at TIME

	• Explain the concept of interoperability and its importance in healthcare. • Juxtapose the benefits and barriers of HIE. • Compare and contrast the models and methods of HIE. • Explain the requirements of Meaningful use. Health Information Management Technology, An Applied Approach 5th Ed. Chapter 11: Health Information Technologies	
Week 12 DATE	Chapter 11: Health Information Exchange - Continue	<u>HITECH/Meaningful Use Assignment</u> Due Date: DATE at TIME <u>Health information Management Case Studies. 3rd Ed.</u> <u>Case Study 3.15: HIE Challenges</u> Due Date: DATE at TIME <u>Glossary Table Semester Project:</u> Due Date: DATE at TIME
Week 13 DATE	Chapter 13: Security Compliance & Monitoring • Explain the necessity for standards in health information technology (HIT) • Explain how Health Level Seven International (HL7) influences healthcare data standards. • Clarify the difference between the continuity of care record and continuity of care document. • Compare and contrast data content standards, vocabulary standards, and messaging standards. • Describe how SNOMED CT works to achieve uniform terminology. • Identify the need for mapping.	<u>Team Project: SDOs</u> Due Date: DATE at TIME <u>Chapter 12 Test: Data Management/HIE Test</u> Due Date: DATE at TIME <u>Glossary Table Semester Project:</u> Due Date: DATE at TIME

	Differentiate among national drug codes, RxNorm, and NCPDP. Health Information Management Technology, An Applied Approach 5th Ed. Chapter 6: Data Management, Page 153	
Week 14 DATE	Chapter 12: Security - Educate staff on security issues. - Discuss federal security regulation. - Recommend security measures. - Develop policies and procedures on security practices. - Control access to protected health information. - Conduct audit for security violation. Health Information Management Technology, An Applied Approach 5th Ed. Chapter 10: Data Security	<u>Case Study: HIM Security Breach</u> Due Date: DATE at TIME <u>Security Plan Analysis</u> Due Date: DATE at TIME <u>Glossary Table Semester Project</u> Due Date: DATE at TIME
Week 15 DATE	Introduction to Health Information Governance (IG)	<u>Health Information Governance (IG) Worksheet</u> Due Date: DATE at TIME <u>Health information Management Case Studies. 3rd Ed.</u> <u>Case Study: IG – Telehealth</u> Due Date: DATE at TIME <u>Health information Management Case Studies. 3rd Ed.</u> <u>Case Study: Data Management</u> Due Date: DATE at TIME
Week 16 DATE	Final Exam Week	<u>Final Exam: Must be Completed prior to</u> DATE at TIME Opens DATE at TIME Closes DATE at TIME

Disclaimer: “The instructor reserves the right to amend this syllabus as deemed necessary and will communicate such amendment to the students in the course.”