

# **Part 1: Course Details**

**Division/Department requesting change: Health Professions/Health Information Management Program**

**Course developer name and contact information: Kathleen Walters, ext. 5734**

**Division Dean: Grant Matthews**

**Academic year (e.g., 2018-19) change will take effect: 2019-20**

**TYPE OF COURSE**

**Lower Division Collegiate**  **Professional/Technical** **Developmental, numbered below 100**

**CHANGES TO COURSE**

|  |  |  |
| --- | --- | --- |
| **Enter Current Course Information**  **(fill out this column completely)** | **Proposed Change type  (check all that apply)** | **Proposed Course Changes** |
| Course number: HIT 107 | **Course number** |  |
| Course title: Integrated Electronic Health Records | **Course title** |  |
| Credits  \_3\_ Lecture  \_\_\_ Lecture/Lab  \_1\_\_ Lab  \_4\_\_ Total Credits | **Credit change** | \_4\_\_ Lecture  \_\_\_ Lecture/Lab  \_\_\_ Lab  \_\_4\_ Total Credits |
| Contact hours per week  \_3\_\_ Lecture  \_\_\_ Lecture/Lab  \_\_3\_ Lab  \_6\_\_ Total Contact Hours/Week | **Contact hours per week (see formula below)**  **1 lecture = 4 contact hour per week** | \_\_4\_ Lecture  \_\_\_ Lecture/Lab  \_\_\_ Lab  \_\_4\_ Total Contact Hours/Week |
| **Prerequisites (current)** | **Prerequisites** | **Prerequisites (proposed)** |
| **Placement test and code (**e.g., 4cpa score of 75-120; contact testing for codes) | **Prerequisite placement test/score** |  |
| **Co-requisites** | **Co-requisites** |  |
| **Grade option (letter or P/NP):** | Grade option (letter or P/NP) | **Grade option (proposed):** |
| **Copy/paste current course description.** If this course is repeatable for credit, please include a sentence in your description. E.g., “This course is repeatable for up to \_\_\_ credits.”  **Students will learn to work with simulated Electronic Health Record (EHR) systems or real EHR systems with simulated data. As they play the role of practitioners using these systems, they will learn what is happening regarding functionality of software. Within this environment, they will experience threats to security and appreciate the need for standards, high levels of usability, and sources of errors. Offered online.** | **Course description (300 characters). For examples, see** [Sample Course Descriptions](https://www.lanecc.edu/currsched/sample-course-descriptions)**.** | **Enter revised description (aim for 300-400 characters/approximately 60-70 words):**  Integrated Electronic Health Records. Throughout this course you are going to be exposed to some hands-on software utilizing PrimeSUITE to show you common software applications in a physician’s office. The software will show you how Practice Management (PM) software is utilized, how Electronic Health Records (EHR) systems are utilized, and expose you to the world of Health Information Management (HIM). This software use will help the student to ahieve an understanding of concepts used in the day-to-day operations of a medical office and work with health information technology using simulated Electronic Health Record (EHR) system with simulated data. As you play the role of practitioners using these systems, you will learn what is happening "under the hood." Within this environment, you will experience threats to security, privacy and appreciate the need for standards, high level of usability, and sources of errors. By becoming comfortable and familiar with this system you should find yourself a little more at ease with learning systems you may encounter in a physician’s office. Learning this system should increase your confidence when interviewing and starting a new career.  Offered online. |
| **Copy/paste current learning outcomes:**  **1. Identify common components of an EHR system and types of EHR applications (E-Mar, POE, PACS, ADT, Lab, DSS, Registries, Billing/ Coding, etc, and acute care, community health, public health, small provider practices, etc.)**  **2..Describe data flows across health information systems and the implication of standards**  **3. Identify root causes of EHR-induced error (i.e. usability, workflow interference, system error, etc.) and suggest solutions**  **4. Assess the strengths and weaknesses of specific solutions to health information system problems (to emphasize the reality of “solutions” and illustrate the frequent domino effect/unintended consequences of changes in an EHR system)**  **5. Define usability, describe general usability principles, and relate usability to adoption of an EHR**  **6. Define and differentiate security, confidentiality, and privacy**  **7. Identify common threats to system security**  **8. Demonstrate beginning level competency in using an EHR system** | **Course learning outcomes, Core Learning Outcomes, and assessments** | **Enter new outcomes, assessments in chart below** |
|  | **Other (please explain)** | Identify common components of an EHR system and types of EHR applications  • Describe data flows across health information systems and the implication of standards  • Identify root causes of EHR-PM data entry induced error (i.e. usability, workflow interference, system error, etc.) and suggest solutions  • Assess the strengths and weaknesses of specific solutions to health information system problems  • Define usability, describe general usability principles, and relate usability to adoption of an EHR-PM  • Define and differentiate security, confidentiality, and privacy  • Identify common threats to system security • Demonstrate beginning level competency in using an EHR-PM system |

# **Part 2: Rationale, Equity, Library Resources, Course Overlap**

**RATIONALE: Describe the rationale for this course revision**

**With the availability of affordable multiple online EHR’s available via the internet, Lane CC lab time is not needed and is actually a detriment in providing distant learning for HIM program students.**

**CURRICULUM EQUITY STATEMENT** Please do not copy/paste the [COPPS equity statement](https://www.lanecc.edu/copps/documents/curriculum-equity). Reflect how your course supports equity. **To promote an environment where all learners are encouraged to develop their full potential, this course will support Lane’s Curriculum Equity policy in the following way(s):**

In practice, the course hopes to provide a means of introducing the field of health information technology education as a possible career path to students who may not have the same opportunities as other students. Designed to introduce students to teaching, culturally responsive teaching practices will be modeled and interwoven throughout each major theme of the course. In a culturally diverse classroom, students have the opportunity to help to create a classroom community of learners. Students will begin by addressing and building upon their own cultures. As they confront their own biases they will be given the opportunity to interact with colleagues and authors who may have a different background from their own. Through readings, software and online access, students will gain access to a plethora of diverse learning opportunities. A major outcome of the course involves the creation of a reciprocal relationship between the instructor and the students in class, so that the students, as future health information technology/management professionals themselves will be better equipped to work with others from diverse populations.

**LIBRARY CONSULTATION Please contact your liaison librarian to schedule a 30+ minute individualized instructional consultation and collaboration session. In addition to your specific course-related questions, your librarian will be prepared to share:**

* **Library resources and services that support your teaching and student learning needs**
* **OER (Open Educational Resources) options that align with your program and course curriculum**
* **Strategies for integrating the development of information literacy skills into course content and/or assignments**

Please allow one week for the librarian to prepare for your consultation. If you are not sure who your liaison librarian is, you can either look it up on the [Library’s website](https://library.lanecc.edu/services/liaison) or call the Library Reference Desk at 463-5355. (Librarian signature required above.)

**COURSE OVERLAP Indicate any topic/content overlap with other courses. How will this course's topics and content be differentiated?** If there is overlap, faculty of overlapping courses must **agree on the extent of overlap and** **include a rationale** explaining its necessity. The dean of the division in which overlap occurs must sign their approval (see p.1).

|  |  |  |  |
| --- | --- | --- | --- |
| Division | Course Number / Title | Rationale | Dean of overlap course (name) |
|  |  |  |  |
|  |  |  |  |

**CAREER/TECHNICAL COURSE TRACKING (required only for career/technical courses)**

Career/Technical courses are tracked within programs for purposes of Carl Perkins funding and budgetary planning. Indicate all degree or certificate programs for which this course will be required.

|  |  |
| --- | --- |
| **Programs in which course will be required** | **Division** |
| AAS HIM (Health Information Management) | Health Professions |
| HIM one year certificate | Health Professions |

# **Part 3: Outcomes, Assessments, and Topics**

**List course outcomes, Core Learning Outcomes (CLOs), and Assessments** The information in this section should be used to create your course outline and syllabus. How are Lane’s Core Learning Outcomes emphasized and measured or demonstrated through course assessments? Please indicate which [Core Learning Outcomes and Dimensions](https://www.lanecc.edu/assessment/core-learning-outcomes) are linked to your course outcomes. Need help? Contact Tammy Salman, Faculty Coordinator, Assessment and Curriculum Development or Sarah Lushia, Core Learning Outcomes Coordinator.

|  |  |  |
| --- | --- | --- |
| [**Core Learning Outcomes and Dimension**s](https://www.lanecc.edu/assessment/core-learning-outcomes) **You do not need a CLO for each course outcome**.  **EXAMPLE** CLO 1.2:Determine information need, find and cite relevant information | **COURSE-LEVEL LEARNING OUTCOMES** (course outcomes)  [See this page for guidance on writing outcomes](https://www.lanecc.edu/assessment/developing-and-refining-learning-outcomes)  **EXAMPLE**  Upon successful completion of this course, students will be able to:  1. Describe and explain general plant structure and function in relation to plant growth and development.  2. Demonstrate knowledge of horticultural principles in the cultivation of plants. | **ASSESSMENTS** Include specific assignments you will use to measure/observe student attainment of outcomes. For assessment ideas see [Authentic Tasks](http://jfmueller.faculty.noctrl.edu/toolbox/tasks.htm) |
| CLO1.1 | Identify common components of an EHR-PM system and types of EHR applications (E-Mar, POE, PACS, ADT, Lab, DSS, Registries, Billing/ Coding, etc, and acute care, community health, public health, small provider practices, etc.) | Software application activities, chapter review exercises, quizzes, case studies and forums |
| CLO 1.2 | Describe data flows across health information systems and the implication of standards | Software application activities, chapter review exercises, quizzes, case studies and forums |
| CLO 1.3 | Identify root causes of EHR-PM data entry induced error (i.e. usability, workflow interference, system error, etc.) and suggest solutions | Software application activities, chapter review exercises, quizzes, case studies and forums |
| CLO 1.4 | Assess the strengths and weaknesses of specific solutions to health information system problems (to emphasize the reality of “solutions” and illustrate the frequent domino effect/unintended consequences of changes in an EHR-PM system) | Software application activities, chapter review exercises, quizzes, case studies and forums |
| CLO 1.5 | Define usability, describe general usability principles, and relate usability to adoption of an EHR-PM | Software application activities, chapter review exercises, quizzes, case studies and forums |
| CLO 1.6 | Define and differentiate security, confidentiality, legal issues and privacy | Software application activities, chapter review exercises, quizzes, case studies and forums |
| CLO 1.7 | Identify common threats to system security | Software application activities, chapter review exercises, quizzes, case studies and forums |
| CLO 1.8 | Understand Health Data Structure to include collection of data and standards | Software application activities, chapter review exercises, quizzes, case studies and forums |
| CLO 1.9 | Understand the content of a health record to include administrative data, past medical, surgical, family, and social history, and the care provider’s responsibility | Software application activities, chapter review exercises, quizzes, case studies and forums |
| CLO 1.10 | Understand insurance and billing functions | Software application activities, chapter review exercises, quizzes, case studies and forums |
| CLO 1.11 | Understand management of information and communication | Software application activities, chapter review exercises, quizzes, case studies and forums |
| CLO 1.12 | Define decision and compliance support | Software application activities, chapter review exercises, quizzes, case studies and forums |
| CLO 1.13 | Identify and define privacy, security, confidentiality and legal issues | Software application activities, chapter review exercises, quizzes, case studies and forums |

**COMPETENCIES AND TOPICS COVERED (include in course outline)**

Example: [Course Outline Sample](https://www.lanecc.edu/copps/course-outline-sample) (from COPPS)

**Course Content/Outline:**

**Unit 1: Introduction & Overview: Components of EHR-PM Software System**

*Description:*

This unit provides an introduction to the core definitions and concepts of healthcare systems. Students are introduced to a simulation EHR-PM system where they learn basic navigation skills and gain familiarity with components common to many clinical EHR-PM systems.

*Objectives:*

1. Define a system and relate systems concepts to health information systems.
2. Describe and identify common components of a clinical health information system: EHR and PM applications.
3. List the advantages and disadvantages of an electronic health record.
4. Describe EHR-PM applications.
5. Chart the flow of information from registration through processing of the claim.
6. Use the help feature.
7. Demonstrate beginning level competency in navigating and using the demonstration EHR system to accomplish basic tasks.

**Unit 2: Health Data Structure, Collection and Standards of EHR-PM Systems**

*Description:*

Unit 2 is designed to introduce students to the generic functions of EHR-PM systems that underpin inpatient and outpatient (ambulatory) processes. Crafted EHR-PM software exercises lead the student through complete patient encounters – both inpatient and outpatient – to highlight how EHR-PM systems support, and sometimes thwart, information flow.

*Objectives:*

1. Describe the roles of six healthcare professionals who maintain or use practice management and electronic health record applications
2. Explain the difference between data and Information
3. Define information governance and the HIM professional's role in it.
4. Identify computer-based health information media
5. Relate how screen-based data collection tools are used in healthcare
6. Demonstrate how individual data elements are collected
7. Describe electronic health record applications
8. Identify laws, regulations, and standards that govern electronic health information
9. Distinguish between practice management software and hospital health information software
10. Identify and use generic EHR-PM functions that support inpatient and outpatient patient care.

**Unit 3: Content of the Health Record-Administrative and Demographic Data**

*Description:*

Unit 3 will focus upon the functional aspects of interoperability within and between systems. Applying didactically presented concepts to hands on lab assignments, students will be challenged to locate and collate data, respond to user requests for reports, and to assist users in planning for enhanced information flow in EHR-PM systems. Students will be able to explain data in an Accountable Care Organization (ACO); the use of the Master Patient Index (MPI); and register and make an appointment for a new patient.

*Objectives:*

1. Identify administrative data elements of the EHR-PM system.
2. Explain the need for standards and why they exist.
3. Define and differentiate between basic messaging standards and terminology standards.
4. Explain the administrative uses of data
5. Explain the use of EHR-PM data in an Accountable Care Organization (ACO).
6. Explain the use of the Master Patient (person) Index (MPI)
7. Apply procedures to register a new patient.
8. Apply procedures to schedule a patient's appointment.
9. Apply procedures to edit demographic information in Prime Suite
10. Apply procedures to capture insurance information
11. Compare current efforts to facilitate health information exchange between providers, communities, regions, & within the nation.

**Unit 4: Content off the Health Record-The Past, Medical, Surgical, Family, and Social History in the** EHR **System**

*Description:*

Unit 4 emphasizes the aspects of an EHR-PM that contribute to effectiveness and meaningful use of data and collection of data. The concepts of data usability, consistency, and reliability in regards to EHR-PM systems and how each contributes to, or detracts from, the effectiveness to document medical, surgical, family, and social histories. Practice and guideline-enhanced care are defined and examples of how health information systems can support effective, safe, and efficient patient-centered care are provided.

*Objectives:*

1. Identify characteristics of an effective EHR system.
2. Define and provide examples of how evidence-based practice can be supported in EHR-PM systems.
3. Define and cite examples of data usability and reliability in EHR-PM systems.
4. Outline the use of forms as data collection tools.
5. Examine the necessity of properly documenting and correcting inconsistent or unclear information.
6. Execute a step-by-step procedure to document past medical, surgical, family, and social histories.

**Unit 5: Content of the Health Record-The Care Provider’s Responsibility**

*Description:*

Unit 5 will present the basic concepts from the care provider’s perspective. Students will illustrate how a care provider captures clinical information. Accessing health information in the record is often necessary for the medical assistant, coder, biller, or other healthcare professionals. Access to a care provider’s documentation to answer questions for another provider or an insurance company, or to complete forms in the EHR-PM will be covered with specific EHR-PM examples. Students will be exposed to ePrescribing and computerized physician order entry (CPOE). The relationships between usability, user satisfaction, and workarounds are detailed in software examples.

*Objectives:*

1. Explain each element of a SOAP note
2. Identify elements of the history of present illness (HPI).
3. Identify elements of the review of systems (ROS).
4. Identify elements of the physical exam (PE).
5. Describe the process of traditional dictation and transcription
6. Illustrate the advantages of speech recognition technology
7. Outline the benefits of ePrescribing
8. Evaluate the benefits of computerized physician order entry (CPOE).
9. Support the necessity to track physicians’ orders
10. Examine the benefits of a problem list.
11. Define usability in relation to EHR systems.
12. Explain the impact of EHR-PM data usability on user satisfaction and adoption.
13. Describe the impact of “workarounds” in error rates or unintended consequences.

#### Unit 6: Financial Management: Insurance and Billing Functions

*Description:*

Unit 6 will focus upon errors in health care that can be facilitated and propagated by EHR-PM use. Different classes of health information system errors (slips/mistakes, omission/commission) are discussed and differentiated. Students will learn the need for a claims management process; the information contained in an encounter form; apply procedures to update a patient’s account.

Specific scenarios that create opportunities for health information system facilitated error are presented to students. Students will demonstrate coding using ICD-10-CM/PCS and CPT codes and examine the correlation between documentation and code assignment. Students, through learning activities, will describe Accountable Care Organizations and information contained in a remittance advice and explanation of benefits. Concepts learned in the didactic portion of this unit to identify error, classify error, analyze root cause, and propose solutions will also demonstrate the need for a compliance plan.

*Objectives:*

1. Illustrate the need for claims management process
2. List the information contained in an encounter form (Superbill
3. Apply procedures to update a patient's account in Prime Suite
4. Demonstrate coding using ICD-10-CM / PCS and CPT codes in Prime Suite
5. Examine the correlation between documentation and code assignment.
6. Describe Accountable Care Organizations
7. Describe the information contained in remittance advice, or explanation of benefits
8. Apply procedures to manage accounts receivable in Prime Suite
9. Demonstrate the need for a compliance plan
10. Explain the concept of facilitated error in health information Systems.
11. Cite examples of situations where health information systems could increase the potential for user error.
12. Analyze sources of health information system facilitated errors and suggest realistic solutions.

#### Unit 7: Privacy, Security, Confidentiality and Legal Issues in HIT (EHR-PM) Systems

*Description:*

Unit 7 presents an overview of the concepts of HIPAA, privacy, security, and confidentiality of private health information (PHI) standards in relation to health information systems. Threats to PHI frequently encountered in EHR-PM environments such as password sharing, offsite access to EHRs, challenges of staff turn-over, student access, and unauthorized access are detailed. Students are exposed to simulated breeches of privacy, security and confidentiality of PHI in exercises and asked to identify and propose strategies to thwart or protect against these breeches. Students will be able to evaluate an EHR-PM system for HIPAA compliance and describe the role of certification in EHR-PM implementation. Application of procedures to set up security measures and procedures to access sensitive or restricted records will be learned via software exercises. Release of health information procedures and accounting for data disclosures will be reviewed. Disaster recovery planning and continuity of care relative to exchange of information with outside healthcare providers will be explained in this unit content.

*Objectives:*

* 1. Identify the HIPAA, privacy and security standards
  2. Evaluating an EHR system for HIPAA compliance
  3. Apply the role of certification in EHR implementation
  4. Apply procedures to set up security measures in Prime Suite
  5. Follow proper procedures to access sensitive or restricted-access records
  6. Apply procedures to ensure data integrity
  7. Apply procedures to release health information using Prime Suite
  8. Account for data disclosures using Prime Suite
  9. Exchange information with outside healthcare providers for continuity of care using Prime Suite
  10. Outline the content of compliance plans
  11. Appraise the importance of disaster recovery planning
  12. Explain privacy, security, and confidentiality and provide examples of each in health information systems.
  13. Identify common threats encountered when using health information systems.
  14. Formulate strategies to minimize threats to privacy, security, and confidentiality in health information systems.

**Unit 8: Management of Information and Communication**

*Description:*

The definitions and concepts of a health information system internal communication tools and differentiation of steps to import/export documents using scanning technology are presented. A variety of different settings are used as examples including small office practices, community clinics, acute care facilities and skilled nursing facilities. Students will build master files and templates and create custom screens. Task lists and system flags within software will also be introduced in this unit.

*Objectives:*

1. Use software as an internal communication tool
2. Differentiate the steps used to import documents using scanning technology
3. Build master files and templates using Prime Suite
4. Create custom screens within Prime Suite
5. Create custom screens within Prime Suite
6. Develop a Task List within Prime Suite
7. Set up system flags within Prime Suite

#### Unit 9: Decision and Compliance Support: Utilizing the Database

*Description:*

The uses of the dashboard to meet meaningful use standards and how data and information are used in decision support are explained. Students will set up system reports and common reports using software. Students will also illustrate uses for an index, and describe uses for a registry. Explanation of how data gathered in the EHR-PM are used in the credentialing process will also be reviewed.

*Objectives:*

* 1. Describe the uses of the dashboard in Prime Suite to meet Meaningful Use standards
  2. Explain how data and information are used in decision support
  3. Set up system reports using Prime Suite
  4. Set up custom reports using Prime Suite
  5. Illustrate uses for an index
  6. Describe uses for a registry
  7. Explain how data gathered in Prime Suite is used in the credentialing process

#### Unit 10: Looking Ahead—The Future of Health Information and Informatics

*Description:*

The comparison of health information management and health informatics is reviewed. The aspects of health information systems that support or detract from patient-centered care are discussed. Students will explore aspects of current health information systems that support patient-centered care and will propose new methods for enhancing patient-centered care. Barriers to adoption of electronic health records are reviewed. Concepts of ancillary technologies or models that are improving care of patients through information technology are introduced. Students will illustrate three mobile devices that will make the collection and sharing of health information more timely and efficient. Description of how virtual private networks (VPNs) and cloud computing technology are advancing the use of EHR-PM is also introduced.

*Objectives:*

* 1. Compare health information management to health informatics
  2. Discuss barriers to the adoption of electronic health records
  3. Describe ancillary technologies or models that are improving the care of patients through information technology
  4. Illustrate three mobile devices that will make the collection and sharing of health information more timely and efficient
  5. Describe how virtual private networks (VPNs) and cloud computing are advancing the use of EHR-PM software
  6. Define patient-centered care.
  7. Suggest health information system enabled solutions/strategies to enhance patient involvement in health and healthcare

# **Part 4: Financial and Student Impact**

**Financial Impact Analysis**

Describe the financial impact of the revised course, including: Instructional costs; workload (both FT and PT faculty and classified staff); physical space requirements (e.g., labs); additional equipment needs; additional fees; any cost reductions

There are no additional faculty, equipment, fees, etc. necessary.

**Student Impact Analysis**

Describe the revised course’s potential impact on students, including: Effect of changes on program requirements, articulations, cost, credit load, avoiding excess credits in transfer, financial aid credit limits, completion, and enrollments; determination of how new/revised courses transfer to four-year schools (please consult with your advisor).

With the advent of a fully online EHR this course is taught 100% by the instructor with no “lab” component

# **Part 5: Degree Requirements Applications (if applicable)**

If applying for any of the following, check the appropriate boxes and include your completed degree requirements forms with this course proposal. Go to the [Curriculum Office website](https://www.lanecc.edu/currsched/curriculum-forms) to download these forms.

AAOT (Career Technical courses not eligible)

Arts & Letters

Cultural Literacy

Information Literacy

Mathematics

Science /Computer Science

Social Sciences

Speech/Oral Communication

Health/Wellness/Fitness (all degrees)

Human Relations designation (for AAS degrees and certificates)

Sustainability course status (optional)

**College Approval (before signing, please see Curriculum Committee recommendations for this course in the committee’s** [**meeting minutes**](https://www.lanecc.edu/currsched/agendas)**)**

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Executive Dean for Academic Affairs Date

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Vice President for Academic & Student Affairs Date