

COURSE INFORMATION: Health Information Technology: Implementation Support Specialist

Business & Community Institute, Lansing Community College: phone: (517) 483-1857

Note: All classroom hours held at Lansing Community College West Campus, S151 and/or S150

COURSE DESCRIPTION: Implementation Support Specialists install and verify health IT systems in clinical and public health settings and ensure their functional and effective use. They provide on-site user support for the period of time before and during implementation of these systems. These individuals will provide support services, above and beyond what is provided by the vendor, to be sure the technology functions properly and is configured to meet the needs of the redesigned practice workflow.

Successful participants will be prepared to take the National Competency Exam offered by the Office of the National Coordinator.

Using a comprehensive curriculum provided by the Office of the National Coordinator (ONC) of the U.S. Department of Health and Human Services, the mission of Lansing Community College is to train a skilled workforce to support the adoption of Electronic Health Records (EHRs), exchange health information among healthcare providers and public health authorities within healthcare settings in order to gain the quality and efficiency benefits of EHRs, while maintaining individual privacy and security.

This project is supported in whole or in part by ARRA HIT Grant # 90CC007901 awarded to Lansing Community College as part of the Midwest Community College Consortium led by Cuyahoga Community College. The Grant was awarded by the Federal Health and Human Services Office of the National Coordinator. Lansing Community College is an equal opportunity employer and does not discriminate based upon race, gender, nor ethnicity.

TARGET AUDIENCE: Individuals with experience in either health care and/or Information Technology (IT) environments.

LEARNING OUTCOMES: After completing this training program, participants should be able to:

1. Execute implementation project plans by installing hardware (as needed) and configuring software in adherence to established protocols to meet practical needs.
2. Demonstrate Information Technology (IT) knowledge.
3. Demonstrate Electronic Health Records (EHR) product knowledge and experience.
4. Demonstrate how EHRs support health care operations and/or public health goals.
5. Incorporate usability principles in implementation and design.
6. Test and verify software performance.
7. Apply data exchange standards and use controlled health vocabulary, terminologies and classifications to manage information.
8. Interact with vendors as needed to assist with any technical problems that occur during deployment.
9. Identify software or hardware incompatibilities.
10. Assist in identifying data backup and recovery solutions and ensure the solution is effective.
11. Ensure that the mechanism for hardware/software recovery (e.g., data backup or redundant systems) and related capabilities are appropriately implemented to minimize system downtime.
12. Ensure that privacy and security functions are appropriately configured and activated in both hardware and software.
13. Document IT problems and evaluate the effectiveness of problem resolution.
14. Demonstrate sensitivity to user needs while working effectively with diverse skills.
15. Provide end user support "help."
16. Adhere to Control Objectives for Information and related Technology (COBIT) standards for documentation [a set of best practices for IT management].

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GENERAL COURSE SCHEDULE: 180 hours delivered in a *hybrid* format (face-to-face on campus + Online assignments with expected deliverables)

- *A detailed schedule will be distributed to students and published on the Angel course site the first day of class.*

IMPORTANT LANSING COMMUNITY COLLEGE PHONE NUMBERS:

- Business & Community Institute Office phone: (517) 483-1857. *This is the number to call if you need to leave a voice message for the instructors or for Sarah Linz, Program Coordinator.*
- LCC Help Desk: (517) 483-5221. *Call this number if you need help with Angel access.*
- Emergency in the classroom: *call 911 from the classroom phone*

CLASS ATTENDANCE POLICY:

- Participants must attend at least 75% of the required training hours in the classroom for each component and demonstrate proficiency with the competencies of the course—both online and in the classroom. (see Learning Contract for more specifics).

Time spent on lessons online is a recommended minimum of eight hours per week while meeting course expectations/competencies.

- A sign-in attendance sheet will be used in the classroom.

ASSESSMENT:

A variety of assessments will be given throughout the training to verify each student's success or determine a need for assistance. Course participants will practice what they are learning through classroom and online collaboration with their peers, discussion (both in the classroom and online), self-assessments, exams, case studies, and practical, hands-on application.

METHODS OF EVALUATING STUDENT ACHIEVEMENT/ PROGRESS:

Class Attendance	1 point per classroom session
Online Discussion Boards	10 points per week (four points for posting a discussion questions, two points per comment on others' posts.)
Weekly Assessments	10 points per quiz
Exams	100 points per exam
Pre-/ post- self-assessments	10 points each
In-Class Participation	10 points per week
Case studies, other "hands-on" participation	Per instructor

INSTRUCTORS:

Mike Gilreath, ASQ Certified Quality Engineer, QS9000, TS16949, ISO9000:2000 Lead Auditor (QMS), ISO14000 Lead Auditor (EMS), Six Sigma Black Belt

Expertise: Workflow Process, Quality Improvement.

Hank Mayers, MCP, PMP, CPHIMS Expertise: History of Health IT, Project Management, Health Information Exchange, vendors, IT applications

Nancy Ohle, MBA Expertise: Working in Teams, Customer Service, Leadership

Jennifer Pruitt, MS Occupational Therapy Expertise: Working in Teams, Health care, Workflow Process, Quality Improvement, Project Management

Paul Rowe, BS Engineering Technology Expertise: IT Labs and Angel online support

A series of guest speakers/experts in the Health IT field will be included in the course.

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TEXTBOOKS/SUPPLEMENTAL MATERIAL:

Implementing the Electronic Health Record: Case Studies and Strategies for Success
By Joseph Miller, FHIMSS

Additional readings and/or audio-video presentations may be recommended throughout the course.
(*online-see Angel Resources area*)

TECHNOLOGY REQUIREMENTS:

Participants *must* have Internet connectivity with LCC's Health Information Technology — Angel Course Management system access. Room S150 (a computer room) at West campus will be open for student use as needed. See instructor for details.

Browser Requirements

We recommend the use of Firefox for this course due to extensive PowerPoint and audio files usage.

Browser	Browser Configuration	Operating System	RAM	Java Runtime Environment
IE 7 or higher Firefox 3.0 or higher	Pop-Up Blocking disabled JavaScript Enabled	Windows XP Windows Vista Windows 7 Macintosh OS/X	At or above OS recommendations	1.4 or higher

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IMPLEMENTATION SUPPORT SPECIALIST TOPICS AND ESTIMATED DURATION

Note: presented in a hybrid format unless otherwise denoted:

- Terminology in Health Care and Public Health Settings (comp_3) **UNITS 1-17, 16 hours ONLINE ONLY**
Explanation of specific terminology used by workers in health care and public health
- History of Health Information Technology in the United States (comp_5) **UNITS 5-11, 4 hours ONLINE ONLY**
Traces the development of IT systems culminating in the HITECH act. Introduces the concept of Meaningful Use.
- Health Information Management Systems (comp_6) **UNITS 1-10, 12 hours**
Introduction to health IT standards, health-related data structures, software applications; enterprise architecture in health care and public health organizations.
- Introduction to Health Care (comp_1) **UNITS 1-9, 8 hours ONLINE ONLY**
A survey of how health care and public health are organized and services delivered in the U.S. Covers public policy, relevant organizations and their interrelationships, professional roles, legal and regulatory issues, and payment systems.
- Introduction to Information and Computer Science (comp_4) **UNITS 1-9, 8 hours ONLINE ONLY**
For those without an IT background, provides a basic overview of computer architecture, data organization, representation and structure, structure of programming languages, networking and data communication. Includes basic terminology of computing.
- Working with HIT Systems (comp_7 — hands-on lab) **UNITS 1-11, 24 hours**
Participants will work with simulated systems. As they play the role of practitioners using these systems, they will learn what is happening “under the hood.”
- Configuring EHRs (comp_11 — hands-on lab) **UNITS 1-11, 24 hours**
Practical experience with a lab component addressing approaches to assessing, selecting, and configuring EHRs to meet the specific needs of customers and end-users.
- Installation and Maintenance of Health IT Systems (comp_8 — hands-on lab) **UNITS 1-12, 24 hours**
Instruction in installation and maintenance of health IT systems, including testing prior to implementation. Introduction to principles underlying system configuration. Hands-on experience.
- Networking and Health Information Exchange (comp_9) **UNITS 1-9, 16 hours**
Analysis of data mobility including the hardware infrastructure (wires, wireless, and devices supporting them), the ISO stack, standards, Internet protocols, federations and grids, and NHIN and other nationwide approaches.
- Introduction to Project Management: Monitor and Control (comp_19) **UNITS 1,2,8,9 4 hours**
Project management techniques that result in the ability to execute a project management plan.
- Quality Improvement (comp_12) **UNITS 1-6, 4 hours**
Introduces the concepts of health IT and practice workflow redesign as instruments of quality improvement. Addresses establishing a culture that supports increased quality and safety.
- Special Topics: Vendor Special Systems (comp_14) **UNITS 1-8, 4 hours**
Provides an overview of the most popular vendor systems highlighting the features of each as they would relate to practical deployments.
- Working in Teams (comp_17) **UNITS 2-9, 12 hours [includes Leadership — Units 4a, b]**
Experiential module that helps participants become “team players” by understanding their roles, the importance of communication, and group cohesion.
- Usability and Human Factors (comp_15) **UNITS 1-8, 4 hours**
Discussion of rapid prototyping, user-centered design and evaluation, usability; understanding effects of new technology and workflow on downstream processes.
- Professionalism/Customer Service (comp_16) **UNITS 1-9, 16 hours [includes Leadership – Unit 4c]**
Development of the skills necessary to communicate effectively across the full range of roles that will be encountered in health care settings.