

# Health Information Systems Workflow Management and Training Specialist Certificate

This certification program will provide participants with the knowledge and skills to assist healthcare providers to design workflow and implement electronic health records (EHRs) to meet government standards of meaningful use, quality improvement and reporting. The learner will be prepared to design and deliver training programs to employees in clinical and public health settings to prepare them for EHR implementation.

This program has a departmental admissions requirement.

Note: Changes are pending KBOR approval, see program office with questions.

Health Information Technology (<http://www.jccc.edu/hitech>)

(Major Code 5170; State CIP Code 51.0706)

## First Semester

HCIS 230	Introduction to Health Information Systems*	2
HCIS 255	Introduction to Information and Computer Science*	2
HCIS 271	The Culture of Health Care*	2
HCIS 272	Terminology in Health Care Settings*	2
HCIS 273	Quality Improvement*	2
Total Hours		10

## Second Semester

HCIS Elective (see below)		2
HCIS 274	Healthcare Workflow Process Analysis and Redesign*	2
HCIS 275	Health Information Systems*	2
HCIS 277	Training and Instructional Design*	2
HCIS 267	EHR Design, Functionality, and Usability*	3
Total Hours		11

## HCIS Electives

HCIS 261	Networking and Health Information Exchange*	2
HCIS 262	Customer Service in the Health Environment*	2
HCIS 263	Working with Health Information Technology Systems*	2
HCIS 270	Health Information Systems Internship*	2
HCIS 292	Special Topics:*	1-2

**Total Program Hours: 21**

## Courses

### HCIS 230 Introduction to Health Information Systems\* (2 Hours)

**Prerequisites:** Department approval

This course provides an overview of the major concepts of health information systems for individuals with backgrounds in information technology (IT) or healthcare who are considering a transition into health information systems. 2 hrs. lecture/wk.

### HCIS 255 Introduction to Information and Computer Science\* (2 Hours)

**Prerequisites:** Department approval

This course provides a basic overview of computing concepts with periodic ties to the healthcare sector. Topics include computing terms; computer architecture; data organization, representation, and structure; structure of programming languages; and networking and data communication. The design and development of a large computing system, such as one for an electronic health record, is also discussed. 2 hrs. lecture/wk.

**HCIS 261 Networking and Health Information Exchange\* (2 Hours)****Prerequisites:** Department approval

This course provides an in-depth analysis of data mobility. The hardware infrastructure (wired, wireless, and devices supporting them), the International Organization for Standards (ISO) stack, standards, Internet protocols, federations and grids, the Nationwide Health Information Network (NHIN), and other nationwide approaches are discussed. 2 hrs. lecture/wk.

**HCIS 262 Customer Service in the Health Environment\* (2 Hours)****Prerequisites:** Department approval

This course introduces the skills necessary to communicate effectively across the full range of roles that will be encountered in healthcare and public health settings. Appropriate customer service skills, effective written and oral communication, and ethical and cultural awareness are emphasized. 2 hrs. lecture/wk.

**HCIS 263 Working with Health Information Technology Systems\* (2 Hours)****Prerequisites:** Department approval

This course provides an opportunity to work with a real or simulated health information technology (HIT) system. Course topics include information exchange and standards as well as system usability, security, and integration. 2 hrs. lecture/wk.

**HCIS 264 Configuring Electronic Health Records\* (2 Hours)****Prerequisites:** Department approval

This course addresses configuring electronic health records (EHRs) to meet the specific needs of customers. Topics also include system selection, implementation, and meaningful use. 2 hrs. lecture/wk.

**HCIS 265 Installation and Maintenance of Health IT Systems\* (2 Hours)****Prerequisites:** Department approval

This course covers the installation and maintenance of health information technology (HIT) systems, including testing prior to implementation. It introduces principles underlying system configuration and helps students plan system installation. 2 hrs. lecture/wk.

**HCIS 267 EHR Design, Functionality, and Usability\* (3 Hours)****Prerequisites:** Department Approval

This course discusses human factors associated with designing and implementing health information systems. Concepts of usability and the effects of new technology and workflow redesign on downstream processes such as clinical decision support will be covered. This course provides an overview of the most utilized electronic health systems. System features are evaluated and compared as they would relate to practical deployments. Key factors such as cost, licensing, and staffing are also discussed.

**HCIS 270 Health Information Systems Internship\* (2 Hours)**

Students will work in an approved training situation under instructional supervision. The internship is designed to give the student the opportunity to use the knowledge and skills acquired in the healthcare information systems (HCIS) courses. Fifteen hours on-the-job training per week will be the usual workload for the student.

**HCIS 271 The Culture of Health Care\* (2 Hours)****Prerequisites:** Department approval

This course introduces students to job expectations in healthcare settings. Topics also include the organization of care inside a practice setting, privacy laws, and professional and ethical issues. 2 hrs. lecture/wk.

**HCIS 272 Terminology in Health Care Settings\* (2 Hours)****Prerequisites:** Department approval

This course introduces students to terminology and clinical procedures associated with body systems. It also covers terminology related to health information management (HIM), health information technology (HIT), and public health. 2 hrs. lecture/wk.

**HCIS 273 Quality Improvement\* (2 Hours)****Prerequisites:** Department approval

This course introduces the concepts of health information technology (HIT) and practice workflow redesign as instruments of quality improvement (QI). Students will learn methods to establish a culture that supports increased quality and safety. Approaches to assessing patient safety issues and implementing quality management and reporting through electronic systems will be discussed. 2 hrs. lecture/wk.

**HCIS 274 Healthcare Workflow Process Analysis and Redesign\* (2 Hours)****Prerequisites:** Department approval

This course introduces health workflow process analysis and redesign as a necessary component of complete practice automation. The topics of process validation and change management are also covered. 2 hrs. lecture/wk.

**HCIS 275 Health Information Systems\* (2 Hours)****Prerequisites:** Department approval

This course addresses concepts of information systems specific to healthcare and public health applications. Students will be introduced to health information technology (HIT) standards, health-related data structures, software applications, and enterprise information architecture in healthcare and public health organizations. 2 hrs. lecture/wk.

**HCIS 277 Training and Instructional Design\* (2 Hours)****Prerequisites:** Department approval

This course provides participants with essential knowledge and skills to deliver training to adult learners implementing electronic health records (EHRs) in a variety of healthcare settings. The Instructional Systems Design (ISD) model which includes analysis of the learner and learning environment, design and development of customized education, implementation of the training plan, and evaluation of the training program effectiveness will be used. 2 hrs lecture/wk.

**HCIS 292 Special Topics:\* (1-2 Hour)****Prerequisites:** Department Approval

This course periodically presents specialized topics in Health Information Systems (HIS) that are not available in the regularly offered curriculum. Special Topics may be repeated for credit, but only on different topics.