Health Information Technology and Cancer Information Management

Opportunities in the health information field have expanded with changes in health care delivery, utilization and financing and with developments in information technology. The Health Information Technology and Cancer Information Management Department offers four exciting options to prepare for a health information career: (1) the Associate in Science in Health Information Technology; (2) the Associate in Science in Cancer Information Management; (3) the Certificate of Achievement in Cancer Information Management; and (4) the Certificate of Achievement in Medical Coding Specialist. These programs are all offered completely online.

Students must have access to the Internet to enroll in these programs and must complete online orientation activities as the first assignment of each course. Students must meet online technical requirements. Core elements of each online lecture course include successful completion of the course objectives using the Internet, textbooks, study materials and computer applications. Examinations are online. Professional directed practice, under the guidance of a clinical preceptor, is provided at facilities as close as possible to each student's residence.

Health Information Technology

The Health Information Technology (HIT) Program prepares students for a career that places them where the expanding arena of healthcare meets the cutting edge of technology. HIT professionals are the experts on patient data that doctors, nurses and other providers rely on to perform their jobs and which consumers need to manage their own healthcare. By maintaining, collecting, analyzing and securing health information, their work makes an important contribution to the delivery of quality care.

Graduates of the program are granted the Associate in Science Degree in Health Information Technology. The program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM), in cooperation with the American Health Information Management Association (AHIMA). Graduates are eligible to take the national certifying exam to become a Registered Health Information Technician (RHIT).

Cancer Information Management

The Cancer Information Management (CIM) Program prepares students for positions with hospital-based and population-based cancer registries. Responsibilities typically include identification of reportable cancer cases; abstraction of pertinent cancer data from patient records and pathology, radiology and surgical reports; coding and staging primary site, histology and extent of disease; monitoring completeness, timeliness and quality of cancer data; performing cancer patient follow-up activities to identify second primaries, recurrence and spread of disease; reporting cancer data to health care officials, hospital administrators, physicians and regulatory organizations for use in cancer prevention and control; assisting the medical staff and epidemiologists in special studies and research; and supervising staff.

Graduates of this program who earn the Associate in Science Degree in Cancer Information Management are eligible to take the national credentialing exam to become a Certified Tumor Registrar (CTR). Graduates who earn the Certificate of Achievement in Cancer Information Management and who have an Associate Degree or higher in any field are also eligible to the CTR exam. The program is accredited by the National Cancer Registrars Association (NCRA).

Medical Coding Specialist

This completely online certificate program prepares students for a position as a medical coder in an acute care hospital, clinic or physician's office, long-term care facility and other health care settings. Coders ensure that valid codes are applied to medical diagnoses and procedures per coding classification guidelines and to facilitate reimbursement, analyze patient outcomes,, and medical research.

The Medical Coding Specialist Certificate of Achievement prepares students to take the national certification examination to become a Certified Coding Associate (CCA) offered by AHIMA. The program is approved by the American Health Information Management Association (AHIMA).

Program Student Learning Outcomes

1. Apply biomedical knowledge to the process of clinical code assignment
2. Analyze and communicate clinical and statistical data to improve patient care and facilitate financial planning
3. Apply and demonstrate legal, ethical, accreditation and certification standards to health information
4. Participate in planning and implementing clinical and administrative information systems in traditional and alternative healthcare settings
5. Apply departmental and organizational standards to data storage, retrieval, retention and security
6. Demonstrate the ability to work effectively as an individual and collaboratively in a group to resolve health information management challenges in a changing healthcare environment

Department Offices

Health Information Technology and Cancer Information Management Programs (*hitcim@sbcc.edu*, ext. 2851)

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Faculty/Staff

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Degrees and Certificates

Associate in Science
Health Information Technology
Cancer Information Management

Certificate of Achievement

Medical Coding Specialist
Cancer Information Management

Skills Competency Award

Health Care IT Workforce Training

A.S. Degree: Health Information Technology

Department Requirements (46 units)

The following reflects the recommended sequence of courses.

Department requirements offered online by SBCC:

COMP 101 — Introduction to Computer Applications 4
HIT 135 — Basic Medical Terminology.....3
BMS 146 — Human Form and Function 3
HIT 101 — Intro. to Health Information Management.....3
HIT 102 — Legal Aspects of Health Care.....3
HIT 204 — Basic Pathophysiology 3
HIT 201 — Pharmacology for Allied Health 2
HIT 200 — ICD-9-CM Coding.....3
HIT 210 — CPT Procedural Coding 3
HIT 255+ — Medical Insurance and Reimbursement 4
HIT 220 — Health Information Management Statistics 2
HIT 240 — Health Care Quality Management Assessment .3
HIT 230 — Alternative Delivery Systems.....2
HIT 265 — HIM Computer Applications.....2
MGMT 101 — Introduction to Management 3
HIT 275# — HIM Practicum.....3

+ This requirement may be met by HIT 150 plus HIT 250.

 # It is recommended that all HIT classes be completed before HIT 275 is begun. A background check may be required by the host facility.

College Requirements

For complete information see "Graduation Requirements" in the *Catalog* Index.

A.S. Degree: Cancer Information Management

Department Requirements (47 units)

The following reflects the recommended sequence of courses.

HIT 135 — Basic Medical Terminology.....3
BMS 146 — Human Form and Function 3
COMP 101 — Introduction to Computer Applications 4
CIM 100 — Registry Organization and Operations 3
HIT 101 — Introduction to Health Information Management.....3
HIT 204 — Basic Pathophysiology 3
CIM 125 — Cancer Disease Management.....4
CIM 201 — Abstracting Principles and Practice I 3
CIM 150 — Oncology Coding and Staging Systems.....4
CIM 202 — Abstracting Principles and Practice II 3
CIM 225 — Cancer Patient Follow-up 2
CIM 250 — Cancer Statistics and Epidemiology.....3
HIT 240 — Health Care Quality Management.....3
MGMT 101 — Introduction to Management 3
CIM 275* — CIM Practicum 3

** It is recommended that all CIM classes be completed before CIM 275 is begun. A background check may be required by the host facility.*

College Requirements

For complete information see "Graduation Requirements" in the *Catalog* Index.

Certificate of Achievement: Cancer Information Management

Department Requirements (47 units)

The following reflects the recommended sequence of courses.

HIT 135 — Basic Medical Terminology.....3
BMS 146 — Human Form and Function 3
COMP 101 — Introduction to Computer Applications 4
CIM 100 — Registry Organization and Operations 3
HIT 101 — Introduction to Health Information Management.....3
HIT 204 — Basic Pathophysiology 3
CIM 125 — Cancer Disease Management.....4
CIM 201 — Abstracting Principles and Practice I 3
CIM 150 — Oncology Coding and Staging Systems.....4
CIM 202 — Abstracting Principles and Practice II 3
CIM 225 — Cancer Patient Follow-up 2
CIM 250 — Cancer Statistics and Epidemiology.....3
HIT 240 — Health Care Quality Mgmt Assessment 3
MGMT 101 — Introduction to Management 3
CIM 275* — CIM Practicum 3

Note: Each required course must be completed with a minimum grade of "C". It is recommended that all CIM classes be completed before CIM 275 is begun. A background check may be required by the host facility.

Certificate Requirements: Medical Coding Specialist Certificate

Department Requirements (36 units)

The following reflects the recommended sequence of courses.

COMP 101 — Introduction to Computer Applications 4
HIT 135* — Basic Medical Terminology 3
BMS 146* — Human Form and Function 3
HIT 101* — Intro. to Health Information Management 3
HIT 102 — Legal Aspects of Health Care.....3
HIT 204 — Basic Pathophysiology 3
HIT 200* — ICD-9-CM Coding 3
HIT 201 — Pharmacology for Allied Health 2
HIT 210 — CPT Procedural Coding 3
HIT 255+ — Medical Insurance and Reimbursement 4
HIT 205 — Advanced Coding Applications.....4
HIT 280# — Medical Coding Practicum 1

**HIT 135, BMS 146, and HIT 101 are prerequisites to HIT 200.*

+HIT 150 plus HIT 250 will also satisfy this requirement.

Note: Each required course must be completed with a minimum grade of "C".

#It is recommended at all other classes be completed before HIT 280 is begun. A background check may be required by the host facility.

Skills Competency Award Requirements: Health Care IT Workforce Training

Department Requirements (14 units)

EHR 101 — Health Management Information Systems 2
EHR 102 — Working with Health IT Systems 3
EHR 103 — Fundamentals of Health Workflow Process Analysis and Redesign.....3
EHR 104 — Quality Improvement for Health IT 3
EHR 105 — Health IT Planning and Leadership.....3

Planning a Program of Study

Continually updated program information is available at *www.sbcc.edu/HIT/website.*

Course Descriptions

Health Information Technology

HIT 101 — Introduction to Health Information Management
(3) F, S — CSU
Skills Advisories: Eligibility for ENG 110 or ENG 110H

Introduction to the fundamental theories and practices of health information management, including health services organization and delivery; health data and record structure, content and standards; healthcare information technology functions and responsibilities, information systems, technologies and requirements; and health information privacy and security.

HIT 102 — Legal Aspects of Health Care
(3) F, S — CSU
Corequisites: Prior or concurrent enrollment in HIT 101
Skills Advisories: Eligibility for ENG 110 or ENG 110H

Introduction to legal issues pertaining to healthcare, health information and the health record as a legal document. Patient privacy and confidentiality, patient rights, release of information, informed consents, advance directives, compliance, fraud and abuse, HIPAA and E-Health.

HIT 135 — Basic Medical Terminology
(3) F, S — CSU
Skills Advisories: Eligibility for ENG 110 or ENG 110H

Introduction to medical terminology for body structure, body systems and diagnostic work. Prefixes, suffixes, word roots and combined word forms. Includes instruction in spelling, definition and pronunciation.

HIT 200 — ICD-9-CM Coding
(3) F, S — CSU
Prerequisites: HIT 101 and HIT 135 and BMS 146
Corequisites: Prior or concurrent enrollment in HIT 204
Skills Advisories: Eligibility for ENG 110 or ENG 110H
Course Advisories: HIT 101 and HIT 204

Beginning overview of nomenclature and classification systems, with focus on coding inpatient clinical information from medical records. Introduction to *International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD9-CM). Instruction in coding diagnoses and procedures, using ICD9-CM coding, sequencing and coding conventions. Review of complications and co-morbidities. Coding software applications introduced.

HIT 201 — Pharmacology for Allied Health
(2) F, S — CSU
Prerequisites: BMS 146
Course Advisories: HIT 135
Skills Advisories: Eligibility for ENG 110 or ENG 110H

Introduction to pharmacology, basic pharmacological terminology and concepts, drug categories and their uses, mechanisms of drug action, dosage forms, routes of administration, and common generic and tradename medications.

HIT 204 — Basic Pathophysiology
(3) F, S — CSU
Prerequisites: BMS 146
Skills Advisories: Eligibility for ENG 110 or ENG 110H

Introduction to the fundamentals of pathophysiology, with focus on essential concepts of physiologic changes and altered functions in the human body resulting from disease processes. Principles from anatomy, physiology and chemistry provide the foundation for the study of basic disease process concepts, body systems, etiology and pathogenesis of various disorders. Diagnostic procedures, preventative measures and current therapeutic regimens are explored.

HIT 205 — Advanced Coding Applications
(4) F, S — CSU
Prerequisites: HIT 200
Corequisites: HIT 210
Course Advisories: HIT 255

Advanced medical coding for addressing more complex issues related to the ICD-9-CM and HCPCS/CPT coding. Lectures and assignments focus on using case studies, mock records and applying learning at a higher coding skill level. Computerized encoders and groupers emphasized.

HIT 210 — CPT Procedural Coding
(3) F, S — CSU
Prerequisites: BMS 146 and HIT 135
Corequisites: Prior or concurrent enrollment in HIT 200
Skills Advisories: Eligibility for ENG 110 or ENG 110H
Course Advisories: None

Beginning HCPCS/CPT coding class for ambulatory services coding related to facility and professional services, with overview of coding conventions, principles, regulatory guidance and coding software.

HIT 220 — Health Information Management Statistics
(2) — CSU
Prerequisites: COMP 101
Corequisites: Prior or concurrent enrollment in HIT 101
Skills Advisories: MATH 4 and Eligibility for ENG 110 or ENG 110H
Course Advisories: None

Introduction to healthcare statistics, including a review of mathematics, interpretation of healthcare statistical formulas, presentation of data, and application of medical research tools. Use of statistics in relation to long-range healthcare planning and development, application of automated systems, integration of reports and registration of vital statistics.

HIT 230 — Alternative Delivery Systems
(2) F, S — CSU
Prerequisites: HIT 101
Course Advisories: COMP 101 and HIT 240

Introduction to Health Information Management practice in alternative healthcare delivery systems, including ambulatory, long-term and managed care, mental health, rehabilitation medicine, and hospice and home health. Focuses on regulatory and accreditation requirements, funding and reimbursement, transition to the EHR, and health data privacy and security.

HIT 240 — Health Care Quality Management
(3) F, S — CSU
Prerequisites: COMP 101 and HIT 101
Skills Advisories: Eligibility for ENG 110 or ENG 110H
Course Advisories: HIT 255

Applies continuous healthcare quality management and performance improvement principles to the hospital setting, focusing on historical, theoretical, and practical applications and methodologies. Includes data collection and analysis; regulatory, accreditation and patient safety compliance; credentialing and utilization; case and risk management.

HIT 255 — Medical Insurance and Reimbursement
(4) F, S — CSU
Corequisites: HIT 200
Skills Advisories: Eligibility for ENG 110 or ENG 110H
Course Advisories: HIT 101 and HIT 210

Introduction to the basics of medical insurance billing and current payment methodologies in the inpatient, hospital outpatient and physician office's settings. Focus is on compliance with regulatory requirements and common billing practices.

HIT 265 — HIM Computer Applications
(2) F, S — CSU
Prerequisites: COMP 101 and HIT 101
Skills Advisories: Eligibility for ENG 110 or ENG 110H

Intermediate-level systems class focusing on computer applications in healthcare and health information management. Includes application of basic computer and communication concepts and technologies, systems development and analysis, work flow mapping, queries and reports for information retrieval, and migration to the electronic health record.

HIT 275 — HIT Practicum
(3) F, S — CSU
Prerequisites: HIT 200 and HIT 240 and HIT 255
Limitation on Enrollment: Students must have completed the HIT program classes or their equivalent prior to starting the practicum onsite at an affiliated healthcare organization. A physical examination and up-to-date immunizations are required at student's own expense. A background check may be required at student's own expense by the practicum site.

Supervised onsite experience performing CAHIIM/ AHIMA-required HIT competencies for an affiliated healthcare organization. Content includes confidentiality, privacy and security of health information; retention, retrieval, storage and release of health information; electronic health records and compliance with reimbursement, regulatory and accreditation requirements for health information. Students have status of learners, are not considered employees, and are not to replace employed staff. Clinical practice is conducted as a non-paid, laboratory experience.

HIT 280 — Medical Coding Practicum
(1) F, S — CSU
Prerequisites: HIT 210 and HIT 255
Corequisites: Prior or concurrent enrollment in HIT 205
Skills Advisories: Eligibility for ENG 100
Limitation on Enrollment: Students must be enrolled in the SBCC Medical Coding Certificate program to register for this course. A physical examination and up-to-date immunizations are required at student's own expense, and a background check may be required at student's own expense by the practicum site.

Practicum in application of clinical classification systems, coding, case mix analysis, and use of coded and abstracted data. Discussion focuses on directed practice activities. Supervised clinical experience focuses on coding patient care records. Students are assigned to an affiliated health-related agency for supervised clinical practice where they have the status of learners, not considered agency employees, and are not to replace employed staff. Clinical practice is conducted as a non-paid, laboratory experience.

HIT 284 — Certified Coding Associate Exam Preparation
(3) F
Course Advisories: HIT 280

Review of principles of health information documentation, coding, reimbursement methodologies, compliance and data quality to prepare medical coding certificate and experienced medical coders for AHIMA coding certification examinations.

HIT 285 — Registered Health Information Technician Exam Preparation
(3) F, S
Course Advisories: HIT 275

In-depth review of health information principles and applications to prepare Health Information Technology graduates for the American Health Information Management Association's national RHIT examination. Focus is on reviewing materials covered in the HIT Program, as well as learning techniques in test-taking and studying for the examination. Students use links to mock test questions, discussion boards and other resources to prepare them for the national exam.

Course Descriptions

Cancer Information Management

CIM 100 — Registry Organization and Operations
(3) F, S — CSU
Skills Advisories: Eligibility for ENG 110 or ENG 110H

Introduction to hospital-based and central cancer registries, legal issues, confidentiality, standard-setting organizations, types of cancer registries and other disease registries, and data users, computer applications, quality control, and registry operations, including case ascertainment and disease registry files.

CIM 125 — Cancer Disease Management
(4) F, S — CSU
Prerequisites: BMS 146 and HIT 135
Corequisites: CIM 100
Skills Advisories: Eligibility for ENG 110 or ENG 110H

Introduction to the pathophysiology of cancer, using principles from anatomy, physiology and chemistry to provide a foundation for the study of oncology disease process. Diagnostic and staging procedures to include laboratory, pathology, radiography and surgical procedures; treatment modalities include surgery, radiation therapy, chemotherapy, immunotherapy and others, emphasizing the major sites of cancer; clinical trials and research protocols.

CIM 150 — Oncology Coding and Staging Systems
(4) F, S — CSU
Prerequisites: CIM 125
Skills Advisories: Eligibility for ENG 110 or ENG 110H
Course Advisories: CIM 100

Oncology coding and staging systems, including an overview of the International Classification of Diseases for Oncology nomenclature and classification system. Focus on coding clinical information from medical records. Coding diagnosis and procedures, sequencing and coding conventions. Staging and extent of disease concepts used by physicians and cancer surveillance organizations to determine treatment and survival. Collaborative staging system rules for coding extent of disease on cancer abstracts.

CIM 201 — Abstracting Principles and Practice I
(3) F, S — CSU
Prerequisites: HIT 135
Corequisites: Prior or concurrent enrollment in CIM 125
Skills Advisories: Eligibility for ENG 110 or ENG 110H or ENG 110GB

Introduction to the principles of cancer registry abstracting. Identification and selection of appropriate clinical information from medical records to be captured on the cancer registry abstract in a manner consistent with cancer registry regulatory core data requirements.

CIM 202 — Abstracting Principles and Practice II
(3) F, S — CSU
Prerequisites: CIM 201
Corequisites: Prior or concurrent enrollment in CIM 150
Skills Advisories: Eligibility for ENG 110 or ENG 110H

Application of the principles of cancer registry abstracting for the 5 major sites of primary cancer (breast, colon, lung, prostate and bladder). Identification, and selection and recording on a cancer registry abstract of appropriate demographic and site-specific clinical information pertaining to the diagnosis and treatment of cancer from medical records for core data in a manner consistent with cancer registry regulatory core data requirements. Recording, coding and staging site-specific cancer information, using manual and computerized applications. Manual quality control edits of abstracted information to assure timeliness, completeness and accuracy of data.

CIM 225 — Cancer Patient Follow-up
(2) F, S — CSU
Skills Advisories: Eligibility for ENG 110 or ENG 110H

Cancer patient methodology, confidentiality and ethical issues, identification of second primaries and survival data. Physician, patient, third party and other follow-up resources and activities introduced.

CIM 250 — Cancer Statistics and Epidemiology
(3) F, S — CSU
Prerequisites: CIM 201
Corequisites: Prior or concurrent enrollment in CIM 202
Skills Advisories: MATH 100 and Eligibility for ENG 110 or ENG 110H

Introduction to cancer statistics, descriptive and analytic epidemiology, cancer surveillance, annual report preparation, presentation of cancer data and special studies. Use of cancer statistical data for marketing and strategic planning.

CIM 275 — CIM Practicum
(3) F, S — CSU
Prerequisites: CIM 202 and CIM 225 and CIM 250
Corequisites: Prior or concurrent enrollment in HIT 240
Skills Advisories: Eligibility for ENG 110 or ENG 110H
Limitation on Enrollment: This is the last class in SBCC's CIM Program. Students must have completed CIM Program classes or their equivalent prior to starting the practicum onsite at an affiliated healthcare organization or agency. A physical examination and up-to-date immunizations are required at student's own expense. A background check may be required by the practicum site at student's own expense.

Practicum in cancer registry operations for hands-on experience in all aspects of registry organization and operation. Supervised clinical experience in performing NCRA-required cancer information management competencies in an actual registry setting.

Course Descriptions

Electronic Health Records

EHR 101 — Health Management Information Systems
(2) F, S — CSU
Corequisites: EHR 103 (concurrent)
Course Advisories: CIS 101 with a minimum grade of "C"
Skills Advisories: Eligibility for ENG 100

Introduction to health IT standards, health-related data structures and software applications; enterprise architecture in health care and public health organizations. Core course in workforce role of clinician/practitioner consultant.

EHR 102 — Working with Health IT Systems
(3) F, S — CSU
Prerequisites: EHR 101
Course Advisories: CIS 101 with a minimum grade of "C"
Skills Advisories: Eligibility for ENG 100

Students work with simulated or real systems and simulated data to experience threats to security and appreciate the need for standards, high levels of usability, and how errors occur.

EHR 103 — Fundamentals of Health Workflow Process Analysis and Redesign
(3) F, S — CSU
Corequisites: EHR 101 (concurrent)
Course Advisories: CIS 101 with a minimum grade of "C"
Skills Advisories: Eligibility for ENG 100

Covers key concepts of process improvement, including systems, systems thinking and health care processes. Focuses on in-depth analysis of work flow and redesign methods used in transitioning from manual to automated processes in the health care setting.

EHR 104 — Quality Improvement for Health IT
(3) F, S — CSU
Prerequisites: EHR 101
Course Advisories: CIS 101 with a minimum grade of "C"
Skills Advisories: Eligibility for ENG 100

Concepts of Health IT and clinical practice workflow redesign as instruments of quality improvement. Discusses approaches to assessing patient safety issues and improving patient care through EHR reporting.

EHR 105 — Health IT Planning and Leadership
(3) F, S — CSU
Prerequisites: EHR 101
Course Advisories: CIS 101 with a minimum grade of "C"
Skills Advisories: Eligibility for ENG 100

Principles of leadership and team management in Health IT. Analysis of leadership modes and styles best suited for implementation of electronic health records are conducted.