



INSTRUCTIONAL PACKAGE

HIM 266

Computers in Healthcare

Effective Term

Fall 2018

INSTRUCTIONAL PACKAGE

PART I: COURSE INFORMATION

EFFECTIVE TERM: 201810

COURSE PREFIX: HIM 266

COURSE TITLE: Computers in Healthcare

CONTACT HOURS: 3.0

CREDIT HOURS: 3.0

RATIONALE FOR THE COURSE:

The course provides the student with basic knowledge and skills of computerized medical record systems needed for patient data input, insurance billing, and appointment scheduling, and creating common medical record reports. The basics mechanics of EHRs, EMRs, and PHRs will be explored in addition to the ARRA/HITECH laws to prepare students to competently perform the duties of administrative tasks within any healthcare organization.

COURSE DESCRIPTION:

This course covers hardware and software components of computers for medical record applications, methods of controlling accuracy and security of data in computer systems, record linkage, and data sharing concepts.

PREREQUISITES/CO-REQUISITES:

Credit level [HIM 103](#) Minimum Grade of C or Credit level [HIM 103](#) Minimum Grade of TC

REQUIRED MATERIALS:

Please visit the Bookstore online site for most current textbook information. Use the direct link below to find textbooks.

[BOOKSTORE](#).

Enter the semester, course prefix, number and section when prompted and you will be linked to the correct textbook.

TECHNICAL REQUIREMENTS:

Access to Desire2Learn (D2L), HGTC's student portal for course materials.
WaveNet and D2L email access.

STUDENT IDENTIFICATION VERIFICATION

Students enrolled in online courses will be required to participate in a minimum of one (1) proctored assignment and/or one (1) virtual event to support student identification verification. Please refer to your Instructor Information Sheet for information regarding this requirement.

CLASSROOM ETIQUETTE:

NETIQUETTE: is the term commonly used to refer to conventions adopted by Internet users on the web, mailing lists, public forums, and in live chat focused on online communications etiquette. For more information regarding Netiquette expectations for distance learning courses, please visit: [Online Netiquette](#).

PART II: STUDENT LEARNING OUTCOMES

COURSE LEARNING OUTCOMES and ASSESSMENTS*:

COURSE OUTCOMES:

Upon completion of this course, the student will be able to:

1. Comprehend basic principles and concepts of electronic health records and healthcare computer systems.
2. Understand the history, influence, and national regulations of computers in healthcare
3. Apply confidentiality, security, quality, integrity, and reliability concerns to Information Systems in the Healthcare industry.
4. Navigate various medical office programs practicing setting up a fictional computerized medical office practice by: creating new patient files, editing existing files, appointment scheduling functions, patient schedules, super bills, insurance claims, patient statements, and other custom reports.
5. Maintain appropriate computerized billing/payer systems for health insurance providers, Medicare/Medicaid, TRICARE and recognize appropriate billing codes.
6. Explore the concepts of PHRs (Personal Health Records)
7. Apply knowledge of legal standards pertaining to computerized medical records, protected health information, and HIPAA with special implications for telemedicine and e-health.
8. Explore the ARRA/HITECH/Meaningful Use requirements for the Healthcare industry and RHIOs/HIEs/RECs
9. Students will become familiar with their states/geographical area's efforts to comply with the federal mandates for HIEs, RECs, and RHIOs.

Module 1:**Materials Covered:** Readings Chapter 1: Introduction to Computers**Assessment(s):** Weekly Discussions, Assignments, Quizzes/Tests, & Final Exam/Project (if required)**Learning Outcomes:**

- Describe the functions of the basic components of the personal computer to include hardware, software, networks and Internet technologies
- Identify and discuss the impact of computers in healthcare in all areas within a facility
- Discuss the history of computers in healthcare
- Compare and contrast the similarities and differences between the Internet, Intranet, and Extranet as used in healthcare

Module 2:**Materials Covered:** Readings Chapter 2: Common Software Applications**Assessment(s):** Weekly Discussions, Assignments, Quizzes/Tests, & Final Exam/Project (if required)**Learning Outcomes:**

- Discuss common software applications for the personal computer and the operating system environment
- Differentiate between word processing software applications and desktop publishing
- Give examples of common software used, including word processing, spreadsheets, databases, scheduling, presentations, project management, and e-mail software applications
- Illustrate how spreadsheet software can perform statistical calculations and graphical capabilities within the same utility
- Identify three common examples of database usage within the healthcare facility
- Develop a patient case scenario where a software application would be used to help in the caregiving of a patient to speed delivery of care and increase the quality of the level of care provided
- Summarize what you have done in your HIM clinical experiences to date with software that has been used to directly or indirectly improve patient care in the facility

Module 3:**Materials Covered:** Readings Chapter 3: Data Quality**Assessment(s):** Weekly Discussions, Assignments, Quizzes/Tests, & Final Exam/Project (if required)**Learning Outcomes:**

- Describe the difference between raw facts and information as given within the healthcare setting
- Identify the various data sources that populate the electronic health record
- Identify the common data sets for reporting to the various agencies by most

healthcare facilities that are under the Medicare and Medicaid mandates

- List and give an example of each of the AHIMA DATA Quality Model characteristics
- Discuss the importance of data quality charts and graphs and why these can be effective instruments
- Choose the appropriate field type for a data element

Module 4:

Materials Covered: Readings Chapter 4: Databases

Assessment(s): Weekly Discussions, Assignments, Quizzes/Tests, & Final Exam/Project (if required)

Learning Outcomes:

- Assist in the development of a database
- Develop and manage the data dictionary
- Develop queries to retrieve data contained in the database
- Read and understand an entity-relationship diagram
- Identify the primary key contained in an entity
- Differentiate between 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

Module 5:

Materials Covered: Readings Chapter 5: System Selection and Implementation

Assessment(s): Weekly Discussions, Assignments, Quizzes/Tests, & Final Exam/Project (if required)

Learning Outcomes:

- Identify the steps in the both the system selection process and system implementation
 - ▣ Develop the request for proposal
- Assist in the testing and implementation of the system
- Assist in the system analysis process
- Develop training materials and conduct training classes for users

Module 6:

Materials Covered: Readings Chapter 6: Data Storage and Retrieval

Assessment(s): Weekly Discussions, Assignments, Quizzes/Tests, & Final Exam/Project (if required)

Learning Outcomes:

- Identify and recognize both internal and external sources of data
- Determine how data should be backed up and protected from damage, and how to maintain software and hardware
- Design and generate reports
- Differentiate between data and information and identify information formats ☐ Design screens
- Develop data retention schedule
- Determine storage needs for the facility

Module 7:

Materials Covered: Readings Chapter 7: Computers in HIM

Assessment(s): Weekly Discussions, Assignments, Quizzes/Tests, & Final Exam/Project (if required)

Learning Outcomes:

- Identify the 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 health information management systems

Module 8:

Materials Covered: Readings Chapter 8: Administrative Information Systems

Assessment(s): Weekly Discussions, Assignments, Quizzes/Tests, & Final Exam/Project (if required)

Learning Outcomes:

- 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

Module 9:

Materials Covered: Readings Chapter 9: Clinical Information Systems

Assessment(s): Weekly Discussions, Assignments, Quizzes/Tests, & Final Exam/Project (if required)

Learning Outcomes:

- Differentiate between the various clinical information systems
- Define clinical information systems
- Determine what clinical information system is needed to meet the needs of the facility ☐ Determine what clinical information system is needed to meet the needs of the enterprise-wide organization

- Make recommendations on the use and implementation of document management systems

Module 10:

Materials Covered: Readings Chapter 10: Electronic Health Record

Assessment(s): Weekly Discussions, Assignments, Quizzes/Tests, & Final Exam/Project (if required)

Learning Outcomes:

- Participate in the development and implementation of an electronic health record (EHR)
- Explain the role of clinical vocabularies in the EHR
- Support the need for and address issues related to the EHR
- Describe what the EHR is and what it is not
- Educate the provider on benefits of the EHR
- Justify the need for mapping
- Identify the need for the multiple systems required to support the EHR
- Support the need for the personal health record
- Assist in the selection of the type of personal health record to be used
- Describe the role of the Office of the National Coordinator in the development of the health information exchange
- Prepare for and address the issues to the development of the health information exchange
- Discuss meaningful use
- Describe the national health information network

Module 11:

Materials Covered: Readings Chapter 11: Speech Recognition

Assessment(s): Weekly Discussions, Assignments, Quizzes/Tests, & Final Exam/Project (if required)

Learning Outcomes:

- Identify the history of speech recognition technology from its earliest beginnings until now and how this is integrated into the computerized health record
- Compare and contrast the differences between front-end and back-end speech recognition technology from the health information management (transcription) viewpoint
- Explain some of the benefits of using speech recognition technology when coupled with the computerized health record for clinical documentation
- Discuss what problems could arise with dictation and editing with speech recognition if the dictator did not use basic key recommendations according to the ASTM International's E2344 Standard Guide
- Explain the process of dictation by the dictator in front-end speech recognition as well as the back-end process of editing by the transcriptionist

- Provide an example of a bigram in the language model when building the vocabulary in speech recognition technology software

Module 12:

Materials Covered: Readings Chapter 12: Privacy and Security

Assessment(s): Weekly Discussions, Assignments, Quizzes/Tests, & Final Exam/Project (if required)

Learning Outcomes:

- Educate staff on security issues
- Discuss federal security regulation
- Recommend security measures
- Develop policies and procedures on security practices
- Participate in risk analysis
- Assist in the development of a security plan
- Monitor compliance with security plan
- Control access to protected health information
- Conduct audit for security violation
- Develop policies and procedures related to privacy
- Develop password management plan

Module 13:

Materials Covered: Readings Chapter 13: Role of HIM Professionals in Information Systems

Assessment(s): Weekly Discussions, Assignments, Quizzes/Tests, & Final Exam/Project (if required)

Learning Outcomes:

- Discuss various technology-driven roles performed by health information management (HIM) professions
- Discuss information technology tasks performed by HIM professionals in traditional and nontraditional settings
- Discuss the role of knowledge clusters and domains, subdomains, and tasks on the HIM educational process
- Describe the skills of the HIM professionals

Module 14:

Materials Covered: Readings Chapter 14: The Future of Computers in Healthcare

Assessment(s): Weekly Discussions, Assignments, Quizzes/Tests, & Final Exam/Project (if required)

Learning Outcomes:

- Differentiate between the two types of computer-assisted coding
- Discuss pros and cons of computer-assisted coding

- Describe use of mobile health in healthcare
- Describe usage of social networking in healthcare
- Describe how technology is used to provide patient safety
- Describe how business intelligence is used in healthcare

PART III: GRADING AND ASSESSMENT

EVALUATION OF REQUIRED COURSE MEASURES/ARTIFACTS*

Students' performance will be assessed and the weight associated with the various measures/artifacts are listed below.

Weekly Discussions	20%
Assignments	40%
Quizzes/Tests	30%
Final Exam/Project (if required)	10%
Total	100%

****Students, for the specific number and type of evaluations. please refer to the Instructor's Course Information Sheet.***

GRADING SYSTEM:

GRADING POLICY:

Your grade for this course will be determined solely on the basis of the criteria outlined in this syllabus. Students will not be allowed to substitute other activities (reports, homework, etc.) to count in place of any of the stated criteria. Also, since the tests/exams given in this course are designed to measure the extent to which you have mastered course materials, students should not expect there to be any "curving" of grades.

The grading scale is:

90 – 100	=	A
80 – 89	=	B
70 – 79	=	C
60 - 69	=	D
Below 60	=	F

Grades earned in courses impact academic progression and financial aid status. Before withdrawing from a course, be sure to talk with your instructor and financial aid counselor about the implications of that course of action. Ds, Fs, Ws, WFs and Is also negatively impact academic progression and financial aid status.

The Add/Drop Period is the first 5 days of the semester for **full term** classes. Add/Drop periods are shorter for accelerated format courses. Please refer to the academic calendar for deadlines for add/drop ([ACADEMIC CALENDAR](#)). You must attend at least one meeting of all of your classes during that period. If you do not, you will be dropped from the course(s) and your Financial Aid will be reduced accordingly.

PART IV: ATTENDANCE

Horry-Georgetown Technical College maintains a general attendance policy requiring students to be present for a minimum of eighty percent (80%) of his or her classes in order to be eligible to receive credit for any course. However, due to the varied nature of courses taught at the College, a more rigid attendance policy may be required by individual instructors. At a minimum, a student may be withdrawn from a course(s) after he or she has been absent in excess of ten percent (10%) of the total contact hours for a course. **Instructors define absentee limits for their class at the beginning of each term; please refer to the Instructor Course Information Sheet.**

For online and hybrid courses, check your Instructor's Course Information Sheet for any required on-site meeting times. Please note, instructors may require tests to be taken at approved testing sites, if you use a testing center other than those provided by HGTC, the center may charge a fee for its services.

Online/Hybrid Attendance:

Students enrolled in distance learning courses (hybrid and online) are required to maintain contact with the instructor on a regular basis to be counted as "in attendance" for the course. All distance learning students must participate weekly in an Attendance Discussion Board in order to demonstrate course participation. Students showing no activity in the course for two weeks will be withdrawn due to lack of attendance.

Part V: Student Resources



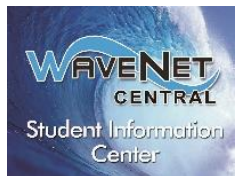
The Student Success and Tutoring Center (SSTC)

The SSTC offers to all students the following **free** resources:

- 1. Academic coaches** for most subject areas, **Writing Center Support**, and **college success skills**.
- 2. On-line student success and academic support resources.**

Visit the SSTC website: [Student Success & Tutoring Center](#) and visit the student services tab in your WaveNet account to schedule appointments using TutorTrac. For more information, call:

SSTC Conway, 349-7872; SSTC Grand Strand, 477-2113; and SSTC Georgetown, 520-1455. Room locations and Live Chat is available on the SSTC website.



Student Information Center: WaveNet Central (WNC)

WNC offers to all students the following **free** resources:

1. **Getting around HGTC:** General information and guidance for enrollment!
2. Use the [Online Resource Center \(ORC\)](#) for COMPASS support, technology education, and online tools.
3. **Drop-in technology support or scheduled training** in the Center or in class.
4. **In-person workshops, online tutorials and more services** are available.

Visit the WNC website: [Wavenet Central](#). Live Chat and Center locations are posted on the website. Or please call one of the following locations: WNC Conway, 349-5182; WNC Grand Strand, 477-2076; and WNC Georgetown, 520-1473.

Student Testing: (If course is offered in multiple format include this section, delete if only F2F sections are offered.)

Testing in an **online/hybrid** course may be accomplished in a variety of ways:

- Test administered within D2L
- Test administered in writing on paper
- Test administered through Publisher Platforms

Further more tests may have time limits and/or require a proctor.

Proctoring can be accomplished either face-to-face at an approved site or online through RPNOW, our online proctoring service. To find out more about proctoring services, please visit the [Online Testing](#) section of the HGTC's Testing Center webpage.

The **Instructor Information Sheet** will have more details on test requirements for your course.

Disability Services

HGTC is committed to providing an accessible environment for students with disabilities. Inquiries may be directed to Jocelyn Williams, Director of Student Development on the Conway Campus Jaime Davis, Counselor/Advisor on the Georgetown Campus or Kristin Griffin, Counselor on the Grand Strand Campus. These individuals will review documentation of the student's disability and, in a confidential setting with the student, develop an educational accommodation plan.

Note: It is the student's responsibility to self-identify as needing accommodations and to provide acceptable documentation. After a student has self-identified and submitted documentation of a disability, accommodations may be determined, accepted, and provided.

Statement of Equal Opportunity/Non-Discrimination Statement

Horry Georgetown Technical College prohibits discrimination and harassment, including sexual harassment and abuse, on the basis of race, color, gender, national or ethnic origin, age, religion, disability, marital status, veteran status, sexual orientation, gender identity, or pregnancy in educational programs and/or activities.

Title IX Requirements

Horry Georgetown Technical College prohibits the offenses of domestic violence, dating violence, sexual assault, and stalking. Any student who believe he or she has experienced or witnessed discrimination including sexual harassment, domestic violence, dating violence, sexual assault or stalking is encouraged to report such incidents to one of the College's Title IX Coordinators.

*Faculty and Staff are required to report incidents to the Title IX Coordinators when involving students. The only HGTC employees exempt from mandatory reporting are licensed mental health professionals (only as part of their job description such as counseling services).

Inquiries regarding the non-discrimination policies:	
Student and prospective student inquiries concerning Section 504, Title II, and Title IX and their application to the College or any student decision may be directed to the Associate Vice President for Student Affairs.	Employee and applicant inquiries concerning Section 504, Title II, and Title IX and their application to the College may be directed to the Associate Vice President for Human Resources.
Dr. Melissa Batten, AVP Student Affairs <i>Title IX Coordinator</i> Building 1100, Room 107A, Conway Campus PO Box 261966, Conway, SC 29528-6066 843-349-5228 Melissa.Batten@hgtc.edu	Jacquelyne Snyder, AVP Human Resources <i>Section 504, Title II, and Title IX Coordinator</i> Building 200, Room 212A, Conway Campus PO Box 261966, Conway, SC 29528-6066 843-349-5212 Jacquelyne.Snyder@hgtc.edu