

**Program Planning Guide**

**Health Information Technology, Associate in Applied Science Degree (A45360)**

The Health Information Technology curriculum provides individuals with the knowledge and skills to process, analyze, abstract, compile, maintain, manage and report health information.

Students will supervise departmental functions; classify, code and index diagnoses and procedures; coordinate information for cost control, quality management, statistics, marketing and planning; monitor governmental and non-governmental standards; facilitate research; and design system controls to monitor patient information security.

Employment opportunities include hospitals, rehabilitation facilities, nursing homes, health insurance organizations, outpatient clinics, physicians' offices, hospice and mental health facilities.

**See the College Catalog for details regarding:** Limited Enrollment Curriculum; Entrance Standards; Required Admissions Criteria and Requirements for Acceptance. <http://www.cccc.edu/curriculum/majors/hit/>

**Program Length:** 5 semesters

**Career Pathway Options:** Associate in Applied Science in Health Information Technology, Diploma, Certificate(s)

**Program Site(s):** Harnett Health Sciences (Online/Evening) <sup>±</sup>required day hours during Professional Practice Courses

Suggested Course Schedule:	Hours				Grade	Semester	Notes
	Class	Lab	Clinical	Credit			
<b>1st Semester (Fall)</b>							
ACA 122	College Transfer Success	0	2	0	1		
BIO 168	Anatomy and Physiology I	3	3	0	4		
ENG 111	Writing & Inquiry	3	0	0	3		
HIT 110	Fundamentals of HIM	3	0	0	3		
CIS 110	Introduction to Computers	2	2	0	3		
MED 121	Medical Terminology I	3	0	0	3		
		14	7	0	17		
<b>2nd Semester (Spring)</b>							
BIO 169	Anatomy and Physiology II	3	3	0	4		
HIT 112	Health Law and Ethics	3	0	0	3		
HIT 114	Health Data Sys/Standards	2	3	0	3		
MED 122	Medical Terminology II	3	0	0	3		
HIT 124	Prof/Practice Exp II <sup>±</sup>	0	0	3	1		
HIT 211	ICD Coding	2	6	0	4		
		13	12	3	18		
<b>3rd Semester (Summer)</b>							
MAT	Elective	2	2	0	3		
HIT 214	CPT/Other Coding Systems	1	3	0	2		
HIT 222	Prof/Practice Exp III <sup>±</sup>	0	0	6	2		
HIT 226	Principles of Disease	3	0	0	3		
		6	5	6	10		
<b>4th Semester (Fall)</b>							
ENG	(ENG 112 or 114)	3	0	0	3		
PSY 150	General Psychology	3	0	0	3		
HIT 218	Mgmt Principles in HIT	3	0	0	3		
HIT 215	Reimbursement Methodology	1	3	0	2		
	HIT elective (select one)						
HIT 220	Health Informatics & EHRs or	1	2	0	2		
HIT 221	Lifecycle of EHR	2	2	0	3		
		12/13	5	0	13/14		
<b>5th Semester (Spring)</b>							

*\*\*Students may exit with Diploma*

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HIT 210	Healthcare Statistics	2	2	0	3			
HIT 216	Quality Management	1	3	0	2			
HIT 225	Healthcare Informatics	3	2	0	4			
HIT 227	Informatics Project Management	2	2	0	3			
HIT 280	Professional Issues	2	0	0	2			
HUM	Elective	3	0	0	3			
		13	9	0	17			

Total Semester Hours Credit: 75-76

## Course Descriptions:

### ACA 122 College Transfer Success 0-2-0-1

This course provides information and strategies necessary to develop clear academic and professional goals beyond the community college experience. Topics include the CAA, college policies and culture, career exploration, gathering information on senior institutions, strategic planning, critical thinking, and communications skills for a successful academic transition. Upon completion, students should be able to develop an academic plan to transition successfully to senior institutions. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### BIO 168 Anatomy & Physiology I 3-3-0-4

*Local Prerequisite: Take One: BIO 090, BIO 094, BIO 110, or by permission of the instructor*

This course provides a comprehensive study of the anatomy and physiology of the human body. Topics include body organization, homeostasis, cytology, histology, and the integumentary, skeletal, muscular, and nervous systems and special senses. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### BIO 169 Anatomy & Physiology II 3-3-0-4

*Prerequisite: BIO 168*

This course provides a continuation of the comprehensive study of the anatomy and physiology of the human body. Topics include the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems as well as metabolism, nutrition, acid-base balance, and fluid and electrolyte balance. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

### CIS 110 Introduction to Computers 2-2-0-3

This course introduces computer concepts, including fundamental functions and operations of the computer. Topics include identification of hardware components, basic computer operations, security issues and use of software applications. Upon completion, students should be able to demonstrate an understanding of the role and function of computers and use the computer to solve problems. This course has been approved for transfer under the CAA and ICAA as a general education course in Mathematics (Quantitative).

### ENG 111 Writing and Inquiry 3-0-0-3

*Prerequisites: Take one set: RED 090\* and ENG 090, ENG 095\*, DRE 098 or appropriate placement.*

This course is designed to develop the ability to produce clear writing in a variety of genres and formats using a recursive process. Emphasis includes inquiry, analysis, effective use of rhetorical strategies, thesis development, audience awareness, and revision. Upon completion, students should be able to produce unified, coherent, well-developed essays using standard written English. This course has been approved for transfer under the CAA and ICAA as a general education course in English Composition.

### ENG 112 Writing/Research in the Disciplines\* 3-0-0-3

*Prerequisite: ENG 111*

This course, the second in a series of two, introduces research techniques, documentation styles, and writing strategies. Emphasis is placed on analyzing information and ideas and incorporating research findings into documented writing and research projects. Upon completion, students should be able to evaluate and synthesize information from primary and secondary sources using documentation appropriate to various disciplines. This course has been approved for transfer under the CAA and ICAA as a universal general education transfer component (UGETC) course in English Composition.

### ENG 114 Professional Research and Reporting\* 3-0-0-3

*Prerequisite: ENG 111*

This course, the second in a series of two, is designed to teach professional communication skills. Emphasis is placed on research, listening, critical reading and thinking, analysis, interpretation, and design used in oral and written presentations. Upon completion, students should be able to work individually and collaboratively to produce well-designed business and professional written and oral presentations. This course has been approved for transfer under the CAA and ICAA as a general education course in English Composition.

### MAT 110 Math Measurement & Literacy\* 2-2-0-3

*Prerequisite: Take one set: DMA 010 and DMA 020 and DMA 030, MAT 060 and MAT 070, MAT 060 and MAT 080, MAT 060 and MAT 090, MAT 095 or appropriate placement.*

This course provides an activity-based approach that develops measurement skills and mathematical literacy using technology to solve problems for non-math intensive programs. Topics include unit conversions and estimation within a variety of measurement systems; ratio and proportion; basic geometric concepts; financial literacy; and statistics including measures of central tendency, dispersion, and charting of data. Upon completion, students should be able to demonstrate the use of mathematics and technology to

solve practical problems, and to analyze and communicate results. Upon completion, students should be able to apply proper techniques to gathering, recording, manipulating, analyzing, and communicating data. This course has been approved for transfer under the CAA and ICAA as a general education course in Mathematics (Quantitative).

**MAT 143                    Quantitative Literacy\*                    2-2-0-3**

*Prerequisite: Take one set: DMA 010 and DMA 020 and DMA 030 and DMA 040 and DMA 050 and DRE 098 or DMA 010 and DMA 020 and DMA 030 and DMA 040 and DMA 050 and ENG 095\* or DMA 030 and DMA 040 and DMA 050 and ENG 090\* and RED 090\* or appropriate placement.*

This course is designed to engage students in complex and realistic situations involving the mathematical phenomena of quantity, change and relationship, and uncertainty through project- and activity-based assessment. Emphasis is placed on authentic contexts which will introduce the concepts of numeracy, proportional reasoning, dimensional analysis, rates of growth, personal finance, consumer statistics, practical probabilities, and mathematics for citizenship. Upon completion, students should be able to utilize quantitative information as consumers and to make personal, professional, and civic decisions by decoding, interpreting, using, and communicating quantitative information found in modern media and encountered in everyday life. This course has been approved for transfer under the CAA and ICAA as a general education course in Mathematics (Quantitative).

**HIT 110                    Fundamentals of HIM                    3-0-0-3**

This course introduces Health Information Management (HIM) and its role in healthcare delivery systems. Topics include standards, regulations and initiatives; payment and reimbursement systems, healthcare providers and disciplines; and electronic health records (EHRs). Upon completion, students should be able to demonstrate an understanding of health information management and healthcare organizations, professions and trends.

**HIT 112                    Health Law and Ethics                    3-0-0-3**

This course covers legislative and regulatory processes, legal terminology and professional-related and practice-related ethical issues. Topics include confidentiality; privacy and security policies, procedures and monitoring; release of information policies and procedures; and professional-related and practice-related ethical issues. Upon completion, students should be able to apply policies and procedures for access and disclosure of Protected Health Information and apply and promote ethical standards.

**HIT 114                    Health Data Sys./Standards                    2-3-0-3**

This course covers concepts and techniques for managing and maintaining manual and electronic health records (EHR). Topics include structure and use of health information including data collection and analysis, data sources/sets, archival systems and quality and integrity of healthcare data. Upon completion, students should be able to monitor and apply system-wide clinical documentation guidelines and comply with regulatory standards.

**HIT 124                    Prof Practice Exp II                    0-0-3-1**

This course provides supervised clinical experience in healthcare settings. Emphasis is placed on practical application of curriculum concepts to the healthcare setting. Upon completion, students

should be able to apply health information theory to healthcare facility practices.

**HIT 210                    Healthcare Statistics                    2-2-0-3**

*Prerequisite: MAT 110 or MAT 143*

This course covers maintenance, compilation, analysis and presentation of healthcare statistics and research protocols and techniques. Topics include basic statistical principles, indices, databases, registries, vital statistics, descriptive statistics, research protocol monitoring, Institutional Review Board processes and knowledge-based research techniques. Upon completion, students should be able to apply, interpret and present healthcare statistics and utilize research techniques to gather and interpret healthcare data.

**HIT 211                    ICD Coding                    2-6-0-4**

This course covers ICD diagnostics and procedural coding conventions and guidelines for inpatient, outpatient and ambulatory care. Emphasis is placed on a comprehensive application of anatomy, physiology and interrelationships among organ systems. Upon completion, students should be able to accurately assign and sequence diagnostic and procedural codes for patient outcomes, statistical and reimbursement purposes.

**HIT 214                    CPT/Other Coding Systems                    1-3-0-2**

*Prerequisite: HIT 211*

This course covers application of principles and guidelines of CPT/HCPCS coding. Topics include clinical classification/nomenclature systems such as SNOMED, DSM, ICD-O and the use of encoders. Upon completion, students should be able to apply coding principles to correctly assign CPT/HCPCS codes.

**HIT 215                    Reimbursement Methodology                    1-2-0-2**

This course covers reimbursement methodologies used in all healthcare settings as they relate to national billing, compliance, and reporting requirements. Topics include prospective payment systems, billing process and procedures, chargemaster maintenance, regulatory guidelines, reimbursement monitoring, and compliance strategies and reporting. Upon completion, students should be able to perform data quality reviews to validate code assignment and comply with reimbursement and reporting requirements.

**HIT 216                    Quality Management                    1-3-0-2**

*Prerequisite: HIT 114*

This course introduces principles of quality assessment and improvement, and utilization, risk, and case management, in healthcare. Topics include Continuous Quality Improvement, and case management processes, data analysis/reporting techniques, credentialing, regulatory quality monitoring requirements, and outcome measures and monitoring. Upon completion, students should be able to abstract, analyze, and report clinical data for facility-wide quality management/performance improvement programs and monitor compliance measures.

**HIT 218                    Mgmt Principles in HIT                    3-0-0-3**

This course covers organizational management concepts as applied to healthcare settings. Topics include roles/functions of teams/committees, leadership, communication and interpersonal skills, designing and implementing orientation/training programs, monitoring workflow, performance standards, revenue cycles, and

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organizational resources. Upon completion, students should be able to apply management, leadership, and supervisory concepts to various healthcare settings.

## **HIT 220 Health Informatics & EHRs 1-2-0-2**

*Prerequisite: HIT 114 and CIS 110*

This course covers EHR systems, design, implementation and application. Topics include EHR, Informatics, speech & imaging technology, information/network security & integrity, data dictionaries, modeling and warehousing. Upon completion, students should be able to facilitate usage of electronic health record systems and other technologies.

## **HIT 221 Lifecycle of EHR 2-2-0-3**

This course covers the system selection, design and implementation of an electronic health record (EHR) in integrated delivery networks. Topics include the system development life cycle, analysis of existing systems, required resources, and common resource constraints. Upon completion, students should be able to understand system development life cycles, analyze design and engineering, and make recommendations to improve efficiency of operations.

## **HIT 222 Prof Practice Exp III 0-0-6-2**

This course provides supervised clinical experience in healthcare settings. Emphasis is placed on practical application of curriculum concepts to the healthcare setting. Upon completion, students should be able to apply health information theory to healthcare facility practices.

## **HIT 225 Healthcare Informatics 3-2-0-4**

This course covers data analysis to support decision making, patient care, and regulatory compliance. Topics include clinical terminology and vocabulary systems, data capture methodology, data presentation and reporting, and initiatives to improve the quality of patient care. Upon completion, students should be able to identify data elements and sets, analyze capture methodology in healthcare settings, analyze compliance issues and make improvement recommendations.

## **HIT 226 Principles of Disease 3-0-0-3**

*BIO 166 or BIO 169*

This course covers disease etiology and organ system involvement, including physical signs and symptoms, prognoses, and common complications and their management. Topics include basic microbiology, basic pharmacology, and principles of disease. Upon completion, students should be able to relate disease processes to etiology, physical signs and symptoms, prognosis, and common complications and their management.

## **HIT 227 Informatics Project Mgt 2-2-0-3**

This course covers the required skills needed for implementing healthcare IT applications, with emphasis on electronic health records (EHR). Topics include leadership development skills, interdisciplinary collaboration, organizational change management, project management software, and the study of communication skills required across healthcare disciplines. Upon completion, students should be able to effectively collaborate and communicate with healthcare disciplines to implement informatics projects within the healthcare setting.

## **HIT 280 Professional Issues 2-0-0-2**

*Prerequisite: HIT 211*

This course provides a comprehensive discussion of topics common to the health information profession. Emphasis is placed on application of professional competencies, job search tools, and preparation for the certification examination. Upon completion, students should be able to demonstrate competence in entry-level domains and subdomains for health information technologies.

## **MAT 110 Math Measurement & Literacy\* 2-2-0-3**

*Prerequisite: Take one set: DMA 010 and DMA 020 and DMA 030, MAT 060 and MAT 070, MAT 060 and MAT 080, MAT 060 and MAT 090, MAT 095 or appropriate placement.*

This course provides an activity-based approach that develops measurement skills and mathematical literacy using technology to solve problems for non-math intensive programs. Topics include unit conversions and estimation within a variety of measurement systems; ratio and proportion; basic geometric concepts; financial literacy; and statistics including measures of central tendency, dispersion, and charting of data. Upon completion, students should be able to demonstrate the use of mathematics and technology to solve practical problems, and to analyze and communicate results. Upon completion, students should be able to apply proper techniques to gathering, recording, manipulating, analyzing, and communicating data. This course has been approved for transfer under the CAA and ICAA as a general education course in Mathematics (Quantitative).

## **MAT 143 Quantitative Literacy\* 2-2-0-3**

*Prerequisite: Take one set: DMA 010 and DMA 020 and DMA 030 and DMA 040 and DMA 050 and DRE 098 or DMA 010 and DMA 020 and DMA 030 and DMA 040 and DMA 050 and ENG 095\* or DMA 030 and DMA 040 and DMA 050 and ENG 090\* and RED 090\* or appropriate placement.*

This course is designed to engage students in complex and realistic situations involving the mathematical phenomena of quantity, change and relationship, and uncertainty through project- and activity-based assessment. Emphasis is placed on authentic contexts which will introduce the concepts of numeracy, proportional reasoning, dimensional analysis, rates of growth, personal finance, consumer statistics, practical probabilities, and mathematics for citizenship. Upon completion, students should be able to utilize quantitative information as consumers and to make personal, professional, and civic decisions by decoding, interpreting, using, and communicating quantitative information found in modern media and encountered in everyday life. This course has been approved for transfer under the CAA and ICAA as a general education course in Mathematics (Quantitative).

## **MED 121 Medical Terminology I 3-0-0-3**

This course introduces prefixes, suffixes, and word roots used in the language of medicine. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.

## **MED 122 Medical Terminology II 3-0-0-3**

*Prerequisite: MED 121*

This course is the second in a series of medical terminology courses.

Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.

**PSY 150                      General Psychology                      3-0-0-3**

This course provides an overview of the scientific study of human behavior. Topics include history, methodology, biopsychology, sensation, perception, learning, motivation, cognition, abnormal behavior, personality theory, social psychology, and other relevant topics. Upon completion, students should be able to demonstrate a basic knowledge of the science of psychology.