



# **East Carolina University**

**College of Allied Health Sciences**

**Department of Health Services and Information  
Management**

**Master of Science Degree in Health Informatics  
and Information Management**

***Student Manual***

## Dean's Welcome

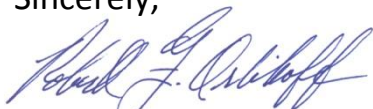
Dear HIIM Graduate Student,

As Dean of the College of Allied Health Sciences at East Carolina University, I extend a most sincere welcome. With a nearly 50-year history, we remain the largest university provider of allied health professionals for the state of North Carolina. The professionals we educate represent the fastest-growing sector of the healthcare workforce. These include dietitians, audiologists, physician assistants, medical technologists, speech-language pathologists, physical and occupational therapists, clinical and rehabilitation counselors and, of course, those with a rewarding career in health informatics and information management.

The faculty in the Department of Health Services and Information Management have diverse backgrounds and areas of expertise. But what they share is talent, commitment, professionalism, and exceptional scholarship. Like you, they are all dedicated to the improvement of healthcare delivery, and improving quality of life, especially for those in our underserved communities. Our mission is to inspire positive change, transform healthcare, promote wellness, and reduce health disparities to “support a thriving future for eastern North Carolina and beyond.” In accordance with that crucial mission, our M.S. degree program in Health Informatics and Information Management offers a comprehensive curriculum that provides our graduates with the knowledge and skills necessary for a transformative career in the design, development, and management of enterprise-level health information systems.

I am proud to represent the students, faculty, and staff who make the College of Allied Health Sciences so vital and important. I'm sure that you will appreciate sharing our mission and passion for health informatics and information management. As your dean, please feel free to see me. I'd welcome the opportunity to hear from you.

Sincerely,



Robert F. Orlikoff, Ph.D.

Professor and Dean, College of Allied Health Sciences  
East Carolina University

## **Chair's Welcome**

On behalf of the Department of Health Services and Information Management, I welcome you to the Master of Science in Health Informatics and Information management. This program is near and dear to my heart because my academic training has been in the fields of Health Informatics and Health Information Management.

We are proud of our department and its integral contribution to the overall missions of East Carolina University and Health Sciences Division, and College of Allied Health Sciences.

The core missions of the department is management in health care, whether it is general health services management or management of one of the most valuable assets in health care — information. The changes in health care are challenging all professions in the field, especially the mandate to work harder for better solutions. The escalated cost of health care, advent of new technologies, transition to value based payment systems, emphasis on population health, and focus on quality, force us to think differently to prepare for and adapt to these changes. We want our students to be prepared for the challenging health care setting as leaders in health care management, health informatics, and health information management.

The activities of teaching, research and services are conducted in alignment with ECU's mission which focuses on student success, public service, and regional transformation. At the undergraduate level, we offer the BS in Health Services Management and BS in Health Information Management (HIM) programs. Our BS in HIM is the only degree granted from a public institution in the state of North Carolina whose graduates are eligible for the Registered Health Information Administrator (RHIA) credentialing exam. At the graduate level, we offer the MS in Health Informatics and Information Management program for future leaders in this exciting field. We also offer four certificate programs — Health Information Management, Health Informatics, Health Care Administration, Health Care Management (MBA) — for students and professionals who are interested in gaining knowledge and skills in each specific field. It is worth highlighting that all our courses are offered with an online option to increase student access. To enforce their teaching and contribute to the knowledge base, our faculty also engage in exciting research activities including leadership, data analytics, quality management, consumer health informatics, health coding quality, online

education and EHR implementation. Service is the culture of the department. Our faculty and students serve the university and community at all levels to contribute to the organization and the society.

We are so excited to have you in our MS in HIIM program and I look forward to seeing you (in person or online) in class.

Xiaoming Zeng

Dr. Xiaoming Zeng  
Professor and Chair  
Health Services and Information management

## Table of Contents

<b>Master’s Degree Program</b> .....	<b>6</b>
<b>Admission Requirements</b> .....	<b>6</b>
Additional admission requirements: .....	6
<b>Degree Requirements</b> .....	<b>6</b>
<b>Registration/Schedule Changes</b> .....	<b>7</b>
<b>Transfer Credits</b> .....	<b>8</b>
<b>Grading System</b> .....	<b>8</b>
<b>Repetition of Classes</b> .....	<b>8</b>
<b>Student Load</b> .....	<b>8</b>
<b>Continuous Enrollment and Readmission</b> .....	<b>8</b>
<b>Maintenance of Academic Standing</b> .....	<b>9</b>
<b>ECU Career Services</b> .....	<b>9</b>
<b>Comprehensive Examination</b> .....	<b>9</b>
<b>Academic Integrity</b> .....	<b>9</b>
<b>Probation and Termination</b> .....	<b>10</b>
<b>Withdrawal</b> .....	<b>10</b>
<b>Computer Requirements</b> .....	<b>11</b>
<b>Additional Recommended Basic Recommended Computer Literacy Skills</b> .....	<b>12</b>
<b>Computer Lab</b> .....	<b>12</b>
<b>Student Health</b> .....	<b>12</b>
<b>Health Insurance</b> .....	<b>13</b>
<b>Certificate Programs</b> .....	<b>13</b>
Health Information Management Certificate.....	13
Health Informatics Certificate Program .....	14
<b>Transfer from Certificate Programs</b> .....	<b>15</b>
<b>Plan of Studies</b> .....	<b>16</b>



## Master's Degree Program Admission Requirements

Admission to the master's program requires completion of an undergraduate degree program at a regionally accredited college or university. Although possession of a bachelor's degree in health informatics or a related field may be beneficial to a master's student, it is not necessary. In fact, some graduate students have entered the program with undergraduate degrees in such diverse fields as political science, psychology, physics and art history.

### **Additional admission requirements:**

- Completed online application: <https://gradapply.ecu.edu/>
- Nonrefundable application fee
- Undergraduate GPA of 3.0 or higher (exceptions can be made based on strengths of other application materials and GRE score)
- Official standardized test (GRE/GMAT) scores send directly to the Graduate School from the testing service
  - this requirement is waived for students completing either the Health Informatics (HI) or Health Information Management (HIM) RHIA program with a minimum 3.5 overall GPA
- Statement of purpose letter, outlining your educational goals and reasons for pursuing a graduate degree in HIIM
- Three letters of recommendation
- Résumé
- Official transcripts (sent directly from each institution) for any post-secondary (bachelor's and higher level degrees) earned and all post-secondary coursework completed within the last 5 years
- TOEFL or IELTS scores for foreign students whose first language is not English
  - This requirement is waived if the applicant has completed one year of post-secondary education in the United States (minimum 18 credit hours)
- Minimum grade of C in a computer programming course (minimum of 3 s.h.) within the 5 years prior to application (Java is recommended)
- Minimum grade of C in a statistics courses (minimum of 3 s.h.) within the 5 years prior to application

## Degree Requirements

There are two options in the master's degree in HIIM: Health Informatics or Thesis. Both options require students to complete 36 s.h. of core courses.

### Core Courses (36 s.h.):

- COHE 6410 – Electronic Health Records (3)
- COHE 6420 – Evaluation Methods in Health Informatics (3)
- COHE 6430 – Database Systems In Health Care (3)
- COHE 6440 – E-health Care Information Systems (3)

- COHE 6450 – Decision Support in Health Care (3)
- COHE 6470 – Health Information Privacy and Security (3)
- COHE 6480 – Health Data Structures (3)
- COHE 6490 – Foundations in Health Information Technology (3)
- COHE 6510 – Social Organizational Issues in Healthcare Information Technology (3)
- COHE 6550 – Health Informatics Project Design and Management (3)
- COHE 6630 – Quality Management in Health Care (3)
- HIMA 6060 – Health Informatics (3)
  
- Health Informatics Option:
  - 39 s.h. (36 core + 3 concentration s.h.) required for graduation
  - Additional required course (1):
    - COHE 6803 – Internship in Health Informatics and Information Management

Internship focusing on HI – 120 contact hours, local (to the student)

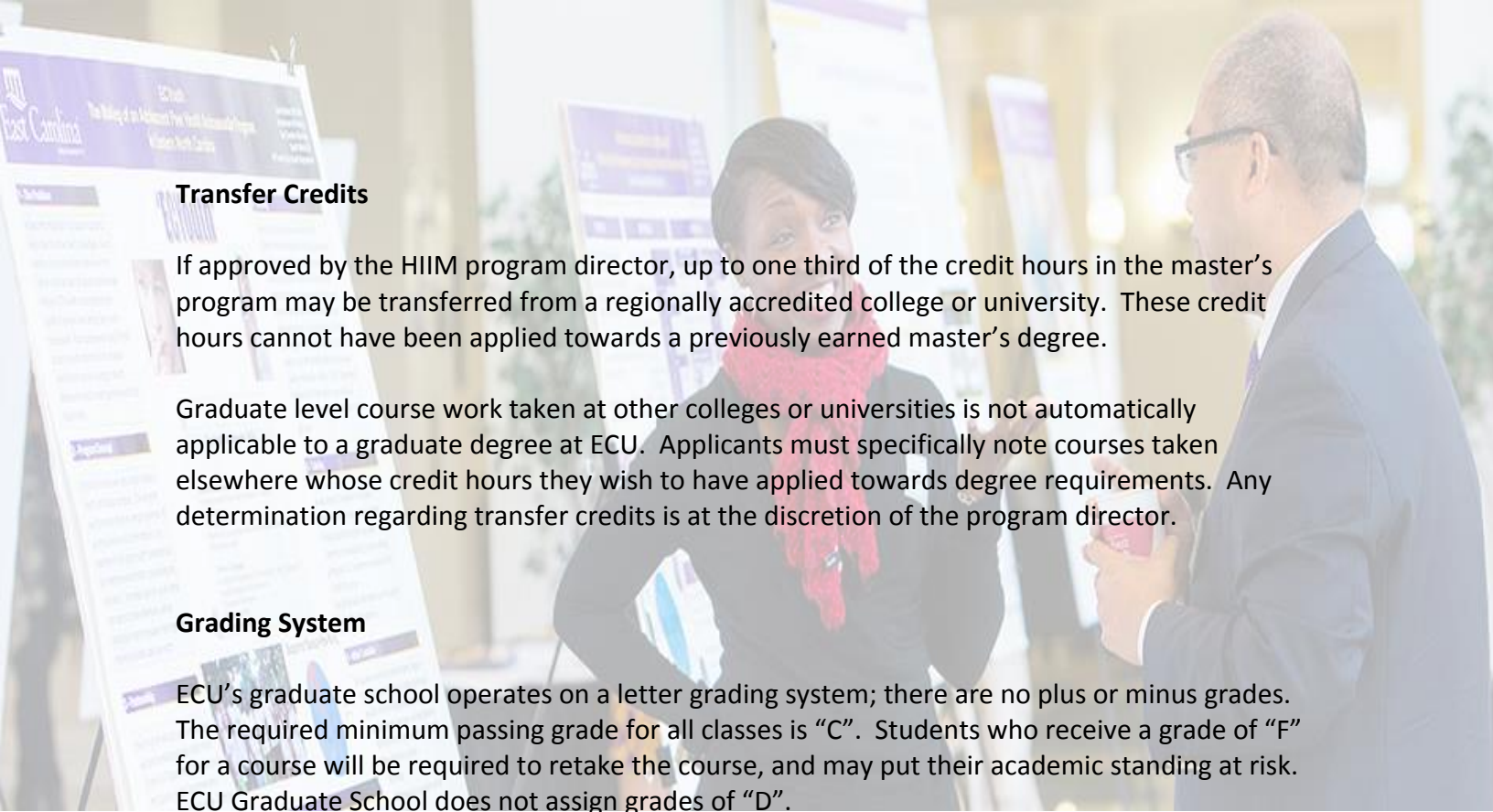
- Thesis Option:
  - 39 s.h. (36 core + 3 concentration s.h.) required for graduation
  - Additional required course (1):
    - COHE 7000 – Thesis

### **Registration/Schedule Changes**

Upon acceptance to the program, the program director will email the student with instructions on using the self-registration system. Students are encouraged to use the self-registration system accessed via [PiratePort](#). In the event of any questions or issues with registration, please contact the program director.

Students are responsible for registering for necessary classes to ensure they are making progress towards their degree program. The program director can provide assistance or guidance for any questions regarding the registration process.

Students will receive regular updates from their academic advisor (Dr. Robert Campbell) advising them of the progress they are making towards graduation, and is available for academic advising and assistance. All academic advising questions are to be directed to Dr. Campbell, program director for the Master's program and academic advisor for all Master's degree students.



### **Transfer Credits**

If approved by the HIIM program director, up to one third of the credit hours in the master's program may be transferred from a regionally accredited college or university. These credit hours cannot have been applied towards a previously earned master's degree.

Graduate level course work taken at other colleges or universities is not automatically applicable to a graduate degree at ECU. Applicants must specifically note courses taken elsewhere whose credit hours they wish to have applied towards degree requirements. Any determination regarding transfer credits is at the discretion of the program director.

### **Grading System**

ECU's graduate school operates on a letter grading system; there are no plus or minus grades. The required minimum passing grade for all classes is "C". Students who receive a grade of "F" for a course will be required to retake the course, and may put their academic standing at risk. ECU Graduate School does not assign grades of "D".

### **Repetition of Classes**

Students who receive a passing grade of "A", "B" or "C" shall not be permitted to retake a course, and the grade shall remain on their record and apply towards their cumulative GPA. Students who fail a course (grade of "F") shall be required to retake the course if its completion is a requirement for graduation or completion of the program.

### **Student Load**

Students **may not** take more than 15 credit hours in any fall or spring semester without the written permission of the department or college and the Dean of the Graduate School. A student is considered to have full-time status when registered for 9 or more credit hours.

### **Continuous Enrollment and Readmission**

A student's record become inactive if that student does not enroll for the semester for which they received admission. Likewise, failure to enroll for any fall or spring semester will inactivate the student's records. Whenever a student's records become inactive, the student must apply for readmission to reactivate their records. Further information, as well as the official policy on Leave of Absence and Readmission can be found at:

[Absence and Readmission Policy](#)



## **Maintenance of Academic Standing**

All students in the program are required to maintain a 3.0 cumulative grade point average (GPA) in all course work related to the student's program of study. Students must also maintain satisfactory progress in the overall graduate program to maintain academic standing. This progress judgement may be rendered by the student's advisor or the graduate advisory committee.

## **ECU Career Services**

ECU Career Services offers all students (undergraduate, graduate and certificate program) career counseling and other services to prepare them for their careers post-graduation. These services include resume and cover-letter writing workshops, salary and job-offer negotiation assistance and career fairs with some of the largest companies in Eastern North Carolina.

Career Services also offers many services to distance education students, such as CareerNET, an online job and internship database for all ECU students and alumni. InterviewSTREAM allows students to practice online interviews, and even record their own mock interviews to share with others for review.

More information on ECU Career Services and the services they provide can be found [here](#).

## **Comprehensive Examination**

Students will be expected to take a comprehensive examination covering the theories, concepts and practices taught within the core curriculum of the degree program. The examination will provide students with an opportunity to demonstrate their proficiency, skills and knowledge acquired throughout the Master's program. The examination will primarily focus on the social and technical aspects of health care as well as on proper data management and security techniques to safeguard health information.

The examination is provided in November and April each year. Students will be eligible to take the examination after 80% of their core courses have been completed.

## **Academic Integrity**

The Department of Health Services and Information Management takes ECU's academic integrity policies very seriously, and will actively pursue all academic integrity violations. Violations of the department's academic integrity principles include:

- Cheating: unauthorized aid or assistance or the giving or receiving of unfair advantage on any form of academic work
- Plagiarism: copying the language, structure, ideas and/or thoughts of another and adopting the same as one's own original work
- Falsification/Fabrication: the statement of any untruth, either spoken or written, regarding any circumstances related to academic work. This includes any untrue statements made with regard to a suspected academic integrity violation.
- Multiple submission: the submission of substantial portions of the same academic work for credit more than once without authorization from the faculty member who receives the later submission
- Violation assistance: knowingly helping or attempting to help someone else in an act that constitutes an academic integrity violation
- Violation attempts: attempting any act that, if completed, would constitute an academic integrity violation as defined herein. This means that an unsuccessful attempt to commit any of the abovementioned academic integrity violations will be treated the same as a successful violation.

The department follows a strict “two strikes, you’re out” policy for academic integrity violations.

All tests administered in department classes must be taken either in-class, at an approved UNC proctoring location, or with a student-selected proctor (minister, high school principal, etc.) who has undergone the proctor approval process through the department.

[Further information on ECU's academic integrity policies.](#)

### **Probation and Termination**

Students who fail to remain in good academic standing (see above) once they have a total of 9 credit hours attempted will be placed on academic probation. (Attempted credit hours are calculated based on credit hours for all graduate courses in which a graduate student is enrolled as of the University Census Date - the 10<sup>th</sup> day of each semester.)

The probationary period will last for the term(s) in which the next 9 credit hours are attempted. Students who fail to raise their cumulative GPA above 3.0 after completing their next 9 credit hours will have their enrollment automatically terminated. Graduate students whose cumulative GPA drops so low as to make it mathematically impossible to raise their cumulative GPA to 3.0 by the end of the remaining probationary period will not be allowed to take classes.

### **Withdrawal**

A graduate student who drops all courses in a semester is considered to have officially withdrawn from the University. If the student withdraws from the university before the

add/drop deadline, she will not receive any grades for those courses. If the student withdraws from the university after the add/drop deadline, she will receive a grade of “F” for all dropped classes.

Students who withdraw for medical or counseling reasons must apply for a medical withdrawal from the Office of the Dean of Students. Students who wish to withdraw for non-medical or non-counseling reasons must notify the office of the registrar of their official withdrawal.

No retroactive non-medical withdrawals will be granted after classes have ended for the semester in which the student was enrolled. Retroactive medical withdrawals after classes have ended will only be granted in the cause of extraordinary medical, personal or family emergency.

### **Computer Requirements**

ECU has three preferred vendors of laptops who rate highest in customer satisfaction: Dell, Lenovo and Apple. The ECU Dowdy Student Stores offer a wide selection of laptops from these manufacturers. More information can be found [here](#). The department recommends that students purchase a laptop with at least the following specs:

- Windows 7 or higher
- Intel Core™ i5™ (2.5 GHz)
- 8 GB RAM
- 500 GB HD
- Symantec Endpoint (required – available from ECU)

Most online classes will require students to check their student email daily, and to check the Blackboard online learning system at least every 2-3 days. A standard web browser is required for these activities (Google Chrome, Apple Safari, Mozilla Firefox or Internet Explorer). Students using Windows based laptops/desktops should have computers running Windows 7 or newer operating system, while students using Mac computers should be running a newer version of Mac OS X.

Many classes will require work to be performed in word processing, spreadsheet or other applications. ECU has an agreement with Microsoft that allows students to download Microsoft Office and Windows free of charge from [this link](#). Much of the software required for coursework can also be accessed using the [Virtual Computing Lab](#).

Some classes require online presentations (via [Media Site](#)) or online group meetings (via [Saba Meeting](#)). A headset is recommended to isolate the spoken word from ambient noise that is picked up via the built-in microphone of a computer, and a webcam or built in camera can also be used for videoconferencing.

Some software is only available for computers running the Windows operating system. These applications can be accessed and run remotely via the [Virtual Computing Lab](#). Students with

Apple computers running Mac OS X or Linux computers running a variant of Linux can also access these applications by installing a Windows operating system virtual machine through a host application such as [VMWare Fusion](#), [Parallels](#), or [Apple Boot Camp](#).

### **Additional Recommended Basic Recommended Computer Literacy Skills**

Students are expected to be comfortable and capable in performing the following skills:

- Basic computer skills, including logging on and off, restarting, and file management skills including opening, closing and saving of files
- Basic use of computers and peripheral devices, including mice, keyboards, external hard drives, USB flash/thumb drives
- Use of email, including addressing, forwarding, reply and reply all, attachments and use of appropriate communication etiquette
- Basic word processing, spreadsheet, database and desktop presentation applications
- Webcam and computer microphone or headset for recording of required class presentation projects
- Web searches using Google as well as specialized literature searches using online library and other resources
- Ability to locate, download and install software packages and updates from both university file repositories as well as third party software developer websites
- Ability to learn the use of statistical analysis packages (Excel, R SAS), computer programming integrated development environments (IDEs – Dr. Java, Eclipse, Oxygen), data mining and visualization tools (Weka, Tableau) and database management systems (DBMS – Access, PostgreSQL)

### **Computer Lab**

The department maintains a state of the art computer lab equipped with 25 laptops available for student use Monday through Friday when the lab is not being used for instruction. Additional computer labs are located in Laupus Library and throughout the campus.

### **Student Health**

\* Online/Distance students or students taking four credit hours or less are exempt from the immunization requirements outlined below.

All new students must complete the report of medical history form, which includes a record of required immunizations. This medical history is required before the first day of classes. Students will not be allowed to attend classes if an up-to-date record of immunizations is not on file with the Student Health Service.



The medical history form along with further information on Student Health Services can be found at [Student Health Services](#).

## **Health Insurance**

\* Online/Distance students are not required to enroll in or waive ECU offered health insurance or provide proof of health insurance coverage. Online/Distance students may purchase student health insurance through the university if desired, but are not required to do so.

Students enrolled in on-campus classes are required to have health insurance. On-campus students who are covered by an existing health plan can waive out of the university supplied health plan by providing proof of existing coverage. On-campus students who do not waive out and provide proof of existing coverage will be automatically billed for the required health insurance offered by ECU.

To waive or enroll in ECU offered health insurance, visit [StudentBlue for ECU](#), or contact Student Health Services at 252.328.6841.

## **Certificate Programs**

The department offers two certificate programs that are shorter in duration, require fewer credit hours for completion, and can be used to provide students an entry into the academic study of Health Informatics and Health Information Management without making the up-front commitment to a full Master's degree education.

### ***Health Information Management Certificate***

Students who are interested in pursuing a career in Health Information Management may elect to apply for the Health Information Management Certificate Program. Successful completion of this Certificate program will qualify students to sit for the American Health Information Management Association (AHIMA) Registered Health Information Administrator (RHIA) examination.

#### **Prerequisites**

- Undergraduate degree from a regionally accredited institution
- Completion of the following courses (or equivalent, to be determined by department admissions) within the past 5 years. Please note that these courses cannot be taken concurrently with HIM certification courses.
  - HIMA 3000 – Medical Terminology for Health Professionals
  - HIMA 3120 – Health Care Delivery Systems
  - BIOL 2130/2131 – Survey of Human Physiology and Anatomy
  - BIOS 1500 – Introduction to Biostatistics

- MIS 2223 – Introduction to Computers
- HSMA 3115 – Human Diseases

#### Admission Requirements

- Completed online application: <https://gradapply.ecu.edu/>
- Nonrefundable application fee
- Undergraduate or Graduate GPA of 2.75 or higher

#### Required Courses (24 s.h.)

- COHE 6310 – Health Care Accounting and Financial Administration (3)
- COHE 6460 – Classification Systems in Health Care (3)
- COHE 6480 – Health Data Structures (3)
- COHE 6490 – Foundations of Health Information Technologies (3)
- COHE 6630 – Quality Management in Health Care (3)
- COHE 6640 – Management of Health Information Services (3)
- COHE 6803 – Internship in Health Informatics and Information Management (3)
- HIMA 6060 – Health Informatics (3)

#### ***Health Informatics Certificate Program***

Students who are interested in pursuing a career in Health Informatics may apply for admission to the Health Informatics Certificate Program. The program is designed for health care workers who do not have informatics training or for information technology (IT) workers who do not have health care training.

Students who do not have a background in health care will be required in their first semester to take COHE 6000 (Health Care Systems and Problems), an introductory survey course of the American health care system.

#### Admission Requirements

- Completed online application: <https://gradapply.ecu.edu/>
- Nonrefundable application fee
- Undergraduate or Graduate GPA of 2.75 or higher
- One-page Statement of Purpose as to why student wishes to acquire a certificate in Health Informatics

#### Required Courses (15 s.h. – choose 5 of the following 6 courses)

- HIMA 6060 – Health Informatics (3)\*
- COHE 6410 – Electronic Health Records (3)
- COHE 6420 – Evaluation Methods in Health Informatics (3)

- COHE 6430 – Database Systems in Health Care (3)
- COHE 6440 – E-Health Care Information Systems (3)
- COHE 6450 – Decision Support in Health Care (3)

\* please note, HIMA 6060 must be taken in the first semester of courses.

### **Transfer from Certificate Programs**

There are several benefits to students who complete a certificate program and then apply to the master's degree program. In addition to becoming familiar with the department and the fields of health informatics and/or health information management, students who successfully complete a certificate program with a GPA of 3.5 will also have the GRE/GMAT admission requirement waived.



**Plan of Studies**

**East Carolina University  
College of Allied Health Sciences  
Department of Health Services and Information Management  
Master of Science in Health Informatics and Information Management  
Plan of Studies**

Name: \_\_\_\_\_ Banner ID \_\_\_\_\_ Year \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_ Zip Code: \_\_\_\_\_

Home Phone: \_\_\_\_\_ Cell Phone: \_\_\_\_\_

East Carolina University Electronic Mail Address: \_\_\_\_\_

**Instructional Method:** Face to Face  Distance  **Track:** Thesis  HI

**Required Courses:**

(Please indicate the year and semester you plan to take each course)

HIMA 6060 _____	COHE 6490 _____	COHE 6430 _____	COHE 6410 _____
COHE 6470 _____	COHE 6480 _____	COHE 6420 _____	COHE 6510 _____
COHE 6550 _____	COHE 6630 _____		

**Health Informatics: Thesis Option:**

COHE 6440 \_\_\_\_\_ COHE 6450 \_\_\_\_\_ COHE 7000 \_\_\_\_\_

**Health Informatics: HI Option:**

COHE 6440 \_\_\_\_\_ COHE 6450 \_\_\_\_\_ COHE 6803 \_\_\_\_\_

**Comprehensive Examination Completed:**

Yes \_\_\_\_\_ No \_\_\_\_\_

**Course Offerings**

Course	Semester
COHE 6410: Electronic Health Records	Spring
COHE 6420: Evaluation Methods in Health Informatics	Fall
COHE 6430: Database Systems in Health Care	Spring
COHE 6470: Health Information Privacy and Security	Fall
COHE 6480: Health Data Structures	Summer
COHE 6490: Foundations of Health Information Technologies	Fall
COHE 6510: Social and Organizational Issues of Health Information Technologies	Spring
COHE 6550: Health Informatics Project Design and Management	Spring
COHE 6630: Quality Management in Health Care	Spring
HIMA 6060: Theories and Applications	Fall, Spring
COHE 6440: E-Health Care Information Systems	Summer
COHE 6450: Decision Support in Health Care	Spring



COHE 6803: Internship in Health Informatics and Information Management	Fall, Spring, Summer (Consult program director)
COHE 7000: Thesis	Fall, Spring, Summer (Consult program director)
COMPREHENSIVE EXAMINATION	November, April