



**Jordan University of Science & Technology**  
**Faculty of Computer & Information Technology**

**Curriculum for the Bachelor's Degree**  
**In**



**Health Information Systems**



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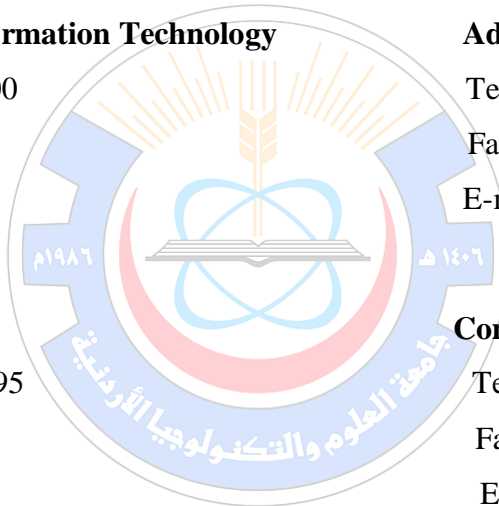
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## About the Program

The Bachelor of Program in Health Information Systems at Jordan University of Science and Technology marks a significant milestone in Jordan's educational landscape, as it is the first and initiatory program dedicated to this vital interdisciplinary field. Launched in 2024, the program aims to equip students with essential skills in healthcare data management, information technology, and analytical methods to improve patient care and streamline healthcare services. With a curriculum that combines health sciences, computer science, and data analytics, students will gain hands-on experience through practical projects and internships in local healthcare settings. This pioneering program not only addresses the growing demand for qualified health informatics professionals in Jordan but also contributes to the advancement of the nation's healthcare system, fostering innovation and improving health outcomes. To enhance career readiness, the program offers opportunities for students to pursue international certifications, which can count as up to 6 credit hours toward their degree.

The curriculum is inspired by leading Bachelor of Health Informatics programs from top global universities:

- [University of Pittsburgh, Pennsylvania](#): Offers a bachelor's degree in health informatics.
- [The University of Central Florida](#): Offers a Bachelor of Science in Health Informatics and Information Management
- [University of Maryland Baltimore County \(UMBC\)](#) - Offers a Bachelor of Science in Health Information Technology

## Vision:

To stand among the pioneers in developing and creating transformational scholars and achievers who are qualified to create and maintain a successful business.

## Mission:

Our mission is to nurture a world-class society of faculty and scholars that are devoted to pioneering scientific education and research. A task done via the creation and dissemination of knowledge through collaborative associations.



### Objectives:

1. **[Professionalism]** Productive and practitioner-oriented professionals, researchers and future leaders who contribute to the development and innovation of the Health Information Systems fields.
2. **[Community Support]** Become a productive member of society who can undertake leadership roles and make innovative decisions to contribute to the Health Information Systems, and economic growth.
3. **[Lifelong Learning]** Lifelong learners who can always improve their professional knowledge in the Health Information Systems technology.

### Outcomes:

The graduates of the Department of Health Information system will have the ability to:

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
3. Communicate effectively in a variety of professional contexts.
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
6. Support the delivery, use, and management of Health Information Systems within a Health Information Systems environment.

## Course Numbering Convention

Digit	Meaning	Explanation	
Hundreds	Course Level	1	First year
		2	Second year
		3	Third year
		4	Fourth year
Tens	Course Subject	0	Basic Principles
		1	Programming
		2	Database
		3	-
		4	Networks
		5	Hardware
		6	Artificial Intelligence
		7	Systems and Systems Software
		8	Miscellaneous
9	Special topics and training		
Ones	Course Sequence	Course sequence number within subject area	

The university codes are as follows:

Code	Department
CIS	Computer Information Systems
CS	Computer Science
SE	Software Engineering
HI	Health Information Systems
NUR	Nursing
HMP	Health Management and Policy
BT	Biotechnology and Genetic Engineering
PH	Public Health
MATH	Mathematics
DS	Data Science

## Study Plan of Bachelor's Degree in Health Information Systems

The *Bachelor's Degree* in **Health Information Systems (HI)** is awarded from the Cybersecurity Department at the faculty of the Computer and Information Technology in Jordan University of Science & Technology (JUST) after the successful completion of 132 credit hours distributed as shown in Table 1.

Table (1): Credit Hours Distribution for Health Information Systems

Requirements	Compulsory hours	Elective hours	Total
University requirements	16	9	25
College requirements	18	0	18
Department requirements	80	9	89
Total	114	18	132

After fulfilling the requirements stipulated in the instructions for granting a bachelor's degree (revised edition) at the Jordan university of Science and Technology issued by the Dean's Council abiding by the regulation concerned with issuing scientific degrees and diplomas at the Jordan university of Science and Technology for 1987.

### 1. University Requirements (25 CHs) classified as:

- University Compulsory Requirements (16 CHs).
- University Elective Requirements (9 CHs).



**2. Faculty Requirements (18CHs) as shown in Table (2):**

**Table (2): Faculty Compulsory Requirements**

Course Number	Course Title	Credit Hours	Weekly Hours		Prerequisite
			Lecture	Lab	
HSS101MATH	Calculus I	3	3	0	-
HSS241MATH	Discrete Mathematics	3	3	0	-
HSS101CS	Introduction to Programming	2	2	0	CIS 99 or Concurrent
HSS106CS	Introduction to Programming (lab)	1	0	2	HSS101CS or Concurrent
HSS112SE	Introduction to Object-Oriented Programming	2	2	0	Passing HSS101CS
HSS113SE	Introduction to Object- Oriented Programming (lab)	1	0	2	HSS112SE or Concurrent
HSS211CS	Data Structures	3	3	0	HSS241Math + Passing HSS112SE
HSS103SE	Introduction to Information Technology	3	3	0	HSS101CS or Concurrent

### 3. Department Requirements (89CHs) classified as:

#### a. Department compulsory requirements (80CHs) as shown in Table (3):

Table (3): Department Compulsory Requirements

Course Number	Course Title	Credit Hours	Weekly Hours		Prerequisite
			Lecture	Lab	
HI102	Introduction to Health Information Systems and Management	3	3	0	-
HI284	Visual Programming for Health Information Systems students	3	3	0	HSS211CS
HI285	Visual Programming for Health Information Systems students (Lab)	1	0	2	HI284 OR Concurrent
HI321	Healthcare Data Analytics	2	2	0	HI284
HI322	Healthcare Data Analytics (Lab)	1	0	2	HI321 OR Concurrent
HI332	Data Visualization and Exploration	3	3	0	HI284
HI335	Developing Mobile Applications and Telemedicine	3	3	0	HI 284
HI341	Information Security And Networks Technology And Policies	3	3	0	HI284
HI391	Practical Training	3	0	6	Passing 90 CHs
DS330	Deep Learning	3	3	0	HI321
DS331	Deep Learning Laboratory	1	0	2	DS330 OR Concurrent
HI420	Applications of Artificial Intelligence in Healthcare	2	2	0	HI321
HI422	Applications of Artificial Intelligence In Healthcare (Lab)	1	0	2	HI420 OR Concurrent
HI421	Medical Image Processing	3	3	0	HI321
HI491	Graduation Project 1	1	1	0	Passing 90 CHs
HI492	Graduation Project 2	2	2	0	HI491
CS284	Analysis and Design of Algorithms	3	3	0	HSS211CS
CIS201	Introduction to Web Design	1	0	3	HSS112SE
CIS221	Fundamentals of Database Systems	3	3	0	HSS211CS





CIS332	System Analysis and Design	3	3	0	CIS221
CIS341	Web applications development	3	3	0	CIS201
CIS421	Database Applications	3	3	0	CIS221
CIS441	Data Communication and Computer Networks	3	3	0	HSS211CS
SE230	Fundamentals Of Software Engineering	3	3	0	-
HSS103BT	General Biology	3	3	0	-
HMP332	Management of Medical Records	3	3	0	
HMP342	Financial Management in Healthcare Sector	3	3	0	-
HSS105NUR	Quality Control, Infection Control And Patient Safety	3	3	0	-
CIS203	Communication and Professional Ethics	2	2	0	-
HSS132MATH	Elements of Biostatistics	3	3	0	HSS101MATH
MATH140	Elements of Linear Algebra	3	3	0	-
PH360	Epidemiology	3	3	0	-

**b. Department Elective Requirements (9 CHs) as shown in Table (4).**

A Student may select at most (3 CHs) from other CIT departments upon department approval.

**Table (4): Department Elective Requirements (9 CHs) \***

Course Number	Course Title	Credit Hours	Weekly Hours		Prerequisite
			Lecture	Lab	
HI338	Research Methods and Analysis in the Field of Health Care	3	3	0	HI102
HI203	Introduction to Hospital Information System and Management	3	3	0	-
HI410	Information Technology in Healthcare Systems of the Future	3	3	0	HI102
HI411	Big Data and Data Warehouse for Healthcare	3	3	0	HI335
HI412	Project Management in Healthcare	3	3	0	HI321
HI414	Digital Marketing in Healthcare	3	3	0	HI102
HI432	Internet of Things	3	3	0	HI335
HI433	Modeling and Simulation in Healthcare	3	3	0	HI335
HI434	Cloud Computing in Healthcare	3	3	0	HI335
HI436	Innovation and Change in Health Information Systems	3	3	0	HI102
HI493	Special Topics in Health Information systems (1)	1	1	0	
HI494	Special Topics in Health Information systems (2)	2	2	0	
HI495	Special Topics in Health Information systems (3)	3	3	0	
-	Any faculty course at level 400 or above	3	3	0	Department Approval

\*Students who are trained in academy or professional training programs in the Faculty of Computer and Information Technology with at least 150 training hours and pass the corresponding international certification exam are exempted from up to (6 CHs) from other CIT departments.



## Guidance Plan

### 1<sup>st</sup> Year

1 <sup>st</sup> Semester			
Course Number	Course Name	# CH	Prerequisite
<b>HSS101MATH</b>	Calculus 1	3	-
<b>HSS101CS</b>	Introduction to Programming	2	Passing CIS 099 OR Concurrent
<b>HSS106CS</b>	Introduction to Programming (lab)	1	HSS101CS Concurrent
<b>HSS103SE</b>	Introduction to Information Technology	3	HSS101CS OR Concurrent
<b>LG101</b>	Communication Skills in English	3	Passing LG099 OR Passing the Placement test with a mark of 50 or above
<b>HI102</b>	Introduction to Health Information Systems and Management	3	-
<b>Total</b>		<b>15</b>	

### 2<sup>nd</sup> Semester

Course Number	Course Name	# CH	Prerequisite
<b>CIS203</b>	Communication and Professional Ethics	2	
<b>HSS110</b>	Leader and Social Responsibility	3	-
<b>HSS112SE</b>	Introduction to Object-oriented Programming	2	Passing HSS101CS
<b>HSS113SE</b>	Introduction to Object-oriented Programming (lab)	1	HSS112SE OR Concurrent
<b>HSS119</b>	Entrepreneurship and Innovation	2	-
<b>HSS241MATH</b>	Discrete Mathematics	3	-
<b>LG103</b>	Life Skills	2	-
<b>Total</b>		<b>15</b>	



## 2<sup>nd</sup> Year

1 <sup>st</sup> Semester			
Course Number	Course Name	# CH	Prerequisite
MATH140	Elements of Linear Algebra	3	-
ARB102	Communication Skills in Arabic	3	-
MS100	Military Sciences	3	-
HSS211CS	Data Structures	3	HSS241MATH Passing HSS112SE
HSS103BT	General Biology	3	-
CIS201	Introduction to Web Design	1	HSS112SE
<b>Total Hours</b>		<b>16</b>	

2 <sup>nd</sup> Semester			
Course Number	Course Name	# CH	Prerequisite
HMP332	Management of Medical Records	3	
HI284	Visual Programming for Health Information Systems Students	3	HSS211CS
HI285	Visual Programming for Health Information Systems Students (Lab)	1	HI284 OR Concurrent
CIS221	Fundamentals of Database Systems	3	HSS211CS
SE230	Fundamentals Of Software Engineering	3	-
-	University Elective	3	-
<b>Total Hours</b>		<b>16</b>	



### 3rd Year

1 <sup>st</sup> Semester			
Course Number	Course Name	# CH	Prerequisite
HSS132MATH	Elements of Biostatistics	3	HSS101MATH
PH 360	Epidemiology	3	-
CS284	Analysis and Design of Algorithms	3	HSS211CS
HI332	Data Visualization and Exploration	3	HI284
HI341	Information Security and Networks Technology and Policies	3	HI284
-	Department Elective Requisite	3	-
<b>Total Hours</b>		<b>18</b>	

2 <sup>nd</sup> Semester			
Course Number	Course Name	# CH	Prerequisite
HMP342	Financial Management in Healthcare Sector	3	-
HI321	Healthcare Data Analytics	2	HI 284
HI322	Healthcare Data Analytics (Lab)	1	HI321 OR Concurrent
HI335	Developing Mobile Applications and Telemedicine	3	HI284
CIS341	Web Applications Development	3	CIS201
-	Department Elective Requisite	3	-
-	University Elective Requisite	3	-
<b>Total Hours</b>		<b>18</b>	



Summer Semester			
Course Number	Course Name	# CH	Prerequisite
HI391	Practical Training	3	Passing 90 CHs
Total		3	





### 4<sup>th</sup> Year

1 <sup>st</sup> Semester			
Course Number	Course Name	# CH	Prerequisite
DS330	Deep Learning	3	HI321
DS331	Deep Learning Laboratory	1	DS330 OR Concurrent
HI420	Applications of Artificial Intelligence in Healthcare	2	HI321
HI422	Applications of Artificial Intelligence in Healthcare (Lab)	1	HI420 or Concurrent
HI421	Medical Image Processing	3	HI321
HI491	Graduation Project 1	1	Passing 90 CHs
CIS332	System Analysis and Design	3	CIS221
CIS421	Database Applications	3	CIS221
<b>Total Hours</b>		<b>17</b>	

2 <sup>nd</sup> Semester			
Course Number	Course Name	# CH	Prerequisite
HSS105NUR	Quality Control, Infection Control & Patient Safety	3	-
HI492	Graduation Project 2	2	HI491
CIS441	Data Communication and Computer Networks	3	HSS211CS
-	University Elective Requisite	3	-
-	Department Elective Requisite	3	-
<b>Total</b>		<b>14</b>	



## Description of Courses

### **HI102: Introduction to Health Information Systems and Management** (3C.H=3H+0L)

*Prerequisite: None*

This course is intended to help students gain a general understanding of various physiological systems as well as the medical terminology used by healthcare professionals and Health Information system professionals during the delivery of healthcare. Students will be exposed to and learn about the functions of each major system in the human body and how its performance is assessed from laboratory results and vital signs. Aspects of clinical decision-making including evidence based practice will be studied. Students will understand how healthcare professionals use diagnostic findings in developing their clinical decision and how to use computing and technology to improve this process. Students will understand how healthcare professionals use diagnostic findings in developing their clinical decision and how to use computing and technology to improve this process. Public organization schemes in the field of healthcare, especially government systems in Jordan, will be discussed, as well as ways to improve these programs using health information systems. Jordan's public and private healthcare policies and regulatory frameworks will be highlighted. Students will also learn basic concepts of health economics and management and how to reduce expenses and improve management

### **HI203: Introduction to Hospital Information System and Management** (3C.H=3H+0L)

*Prerequisite: None*

This course is designed to briefly introduce the basics of Hospital Information Systems (HIS). Here, you will learn about the important solutions in digitizing the healthcare industry. The student will understand the concept and components of the hospital as a system and the supporting role of hospital information. After this course, you will have a deeper understanding of how vital HIS is and how you can take advantage of its many functions and applications.

### **HI284: Visual Programming for Health Information Systems Students** (3C.H=3H+0L)

*Prerequisite: HSS211CS*

This course introduces programming and problem-solving using Python. Topics include data types, methods, conditional statements, iteration, recursion, lists, dictionaries, strings, an operational model of procedure and methods calls, exceptions, and object-oriented programming. Also, this course introduces data analysis and visualization using python. The following python packages are covered: numpy, pandas, Matplotlib, Pillow, SciPy, and scikit-learn.

### **HI285: Visual Programming for Health Information Systems Students (Lab)** (1C=0H+2L)

*Prerequisite: HI284 OR Concurrent*

The lab provides hands-on experience in Python programming principles including arrays and vectors, dictionaries, strings, an operational model, object-oriented programming, and GUIs, data exploring and data analysis and visualization in python. Also, the following python packages are covered: numpy, pandas, Matplotlib, Pillow, SciPy, and scikit-learn.





**HI321: Healthcare Data Analytics**

**(2 C.H=2H+0L)**

*Prerequisite: HI284*

This course aims to provide the student with the needed requirements to use and analyze health care data. This will help to patient's health-related outcomes, through improving patient's treatment plans or use in research studies. This will be done using various AI and deep learning tools and applications.

**HI322: Healthcare Data Analytics (Lab)**

**(1C=0H+2L)**

*Prerequisite: HI321 or concurrent*

This course provides hands-on experience with machine learning algorithms. Students will work on implementing supervised learning models, optimizing classifiers using Python and relevant ML libraries.

**HI332: Data Visualization and Exploration**

**(3 C.H=3H+0L)**

*Prerequisite: HI284*

This course provides fundamentals of information visualization. Topics include data and image models, multidimensional and multivariate data, design principles for visualization, hierarchical, network, textual and collaborative visualization, the visualization pipeline, data processing for visualization, visual representations, visualization system interaction design, and impact of perception. Emphasizes construction of systems using graphics application programming interfaces (APIs) and analysis tools.

**HI335: Developing Mobile Applications and Telemedicine**

**(3C.H=3H+0L)**

*Prerequisite: HI284*

This project-oriented Problem-Solving course covers intermediate and advanced topics for designing and developing mobile applications on the Android platform. Topics will include a review of all previous core topics as well as data processing; Network technologies, URL loading, and working with some phone specifications such as GPS and motion sensors. Students are expected to work on a project that produces a professional quality mobile application. Projects will be deployed in real-world applications. Course work will include project conception, design, implementation, and beta testing of mobile software applications. Also in this course, students will be introduced to the key components and considerations needed to design and implement a successful telemedicine program at both the practice and health system levels. The course emphasizes operational design principles and highlights a team-based approach. Key content areas include clinical considerations, patient safety, technology needs, patient satisfaction, legal, government affairs, regulatory and compliance, and billing considerations.



**HI338: Research Methods and Analysis in the Field of Health Care** (3C.H=3H+0L)

*Prerequisite: HI102*

This course raises scientific research methods and practical issues related to conducting research. It also covers the qualitative and quantitative methods used in conducting research. This course will cover all stages related to scientific research, including research ethics, proposal submission, formulation of goals and objectives, research design, credibility and reliability, sampling strategies and measurements, research application, methods and means of data collection, analysis and interpretation of data, dissemination and skills of evaluating scientific research and provide criticism.

**HI 341: Information Security and Networks Technology and Policies** (3C.H=3H+0L )

*Prerequisite: HI284*

This course defines a range of current approaches, technologies, and issues related to the security and privacy of health information. It will cover common methods used in cyberattacks; Such as viruses, Trojan horses, computer worms, and storage memory exploits. The course will include information security techniques, including access control and information flow theory. Basics of encryption process and data encryption standards, advanced encryption standards and encryption algorithms such as hash function, password systems and intrusion detection systems will be covered. The course will also raise software security systems, internet security, and ethical and legal issues in computer security. The course will introduce students to the importance of professional and ethical best practices, roles and responsibilities, teamwork, communication methods, public ethics and cooperation as a means of improving the quality and safety of patient care.

**HI391: Practical Training** (3C.H= 0H, 6L)

*Prerequisite: Passing of 90 CHs*

This course provides students with the chance to experience the work environment before graduation. Students are required to spend a period of 60 working days as an intern in an institution approved by the CIS department. During this period, students need to get engaged in business practices with their mentors and observe and experience the business conduct of these institutions.

**HI410: Information Technology in Healthcare Systems of the Future** (3C.H=3H+0L)

*Prerequisite: HI102*

This course aims to understand the information technology (IT) components available in the healthcare system as well as how IT applications may be utilized in the field of health and healthcare. Students in this course will learn how IT are reshaping and redefining the healthcare market through improved economies of scale, greater technical efficiencies in the delivery of care to patients, advanced tools for patient education and self-care, and the emergence of e-commerce in health care. Finally, students are introduced to the challenges associated with the application of IT in the institutional context of health service providers.



**HI411: Big Data and Data Warehouse for Healthcare** (3C.H=3H+0L)

*Prerequisite: HI335*

Manipulation, storage, and analysis of large-scale data with respect to issues involving volume, velocity, variety and veracity; design of large-scale databases; use of large-scale distributed file systems; design of algorithms to analyze large data sets using parallelized processing tools. Also, the course provides principles of Data Warehousing, Data Warehouse techniques, Data Warehouse design, Extract-Transform-Load (ETL), Data Cubes, and Data Marts.

**HI412: Project Management in Healthcare** (3C.H=3H+0L)

*Prerequisite: HI321*

In this course, the student learns about the concept of project management, its importance, its objectives, how to plan and implement it, how to organize it, its relationship with departments, and how to make decisions in it, as well as to clarify the concepts and tools of project design, management and oversight, and broaden students' perceptions of the contemporary risks they face.

**HI 414: Digital Marketing in Healthcare** (3C.H=3H+0L)

*Prerequisite: HI102*

The course presents the constituent elements of e-marketing in terms of emphasizing the appropriate tools and techniques for designing and managing an actual e-marketing process. Currently, digital technologies have become more important for marketing. For example, digital advertising currently accounts for nearly half of all global ad spending. The course provides an applied understanding of the digital technologies available for e-marketing and how they should be used, such as social media and video marketing. Topics include strategy, content, and understanding customer behavior. search engine optimization; Search Ads, Internet Ads, Social Media Ads, Content Marketing Strategy, Social Media Strategy Direct Marketing: Email and Mobile. Video marketing.

**HI420: Applications of Artificial Intelligence in Healthcare** (2C.H=3H+0L)

*Prerequisite: HI321*

The course covers topics related to Artificial Intelligence (AI) applications in healthcare (e.g. radiology, laboratory tests, patient monitoring, medical diagnosis, treatment plans, modeling disease progression, and predicting patient outcomes). This course gives students a comprehensive picture on how AI technologies support administrative tasks, clinical workflow, data analytics in health care. It also provides the student with opportunities to apply AI applications in healthcare through the use of relevant algorithms.

**HI422: Applications of Artificial Intelligence in Healthcare (Lab)** (1C.H=0H+2L)

*Prerequisite: HI420 OR Concurrent*

This course provides hands-on experience with machine learning algorithms. Students will work on implementing unsupervised learning models, optimizing classifiers, and conducting feature selection and dimensionality reduction. Labs will also cover recommendation systems, time series analysis, and data streaming techniques, applying these concepts to structured and unstructured data using Python and relevant ML libraries

**HI421: Medical Image Processing**

**(3C.H=3H+0L)**

***Prerequisite: HI321***

This course includes processing, construction and analysis, registration, classification and image segmentation in healthcare. It se aims to provide basic knowledge in the field of imaging in healthcare, with emphasis on magnetic resonance imaging, X-ray computed tomography, ultrasound imaging, nuclear imaging, and optical imaging and how to deal with and analyze data derived from these medical images, aiming to provide diagnoses or use in research studies

**HI432: Internet of Things**

**(3C.H=3H+0L)**

***Prerequisite: HI335***

This course provides an understanding of IoT technologies in healthcare. Students will learn IoT device programming (e.g., Arduino and Raspberry Pi), sensing and actuating technologies, IoT protocol stacks, networking backhaul design and security enforcement, and cloud based IoT platforms such as AWS IoT.

**HI433: Modeling and Simulation in Healthcare**

**(3C.H=3H+0L)**

***Prerequisite: HI335***

This course encompasses the aspect of utilizing high fidelity simulation in health education. It covers the following topics: (1) the purpose of using simulation in health education; (2) curriculum simulation integration; (3) types of simulation (low, moderate and high fidelity simulation); (4) developing, designing, and implementing clinical simulation scenarios; (5) different ways of an effective briefing and debriefing (the key to learning in simulation); and (6) evaluating healthcare simulation.

**HI434: Cloud Computing in Healthcare**

**(3C.H=3H+0L)**

***Prerequisite: HI335***

The course presents cloud computing, cloud infrastructure, security and privacy, and cloud models such as Infrastructure-as-a-service, Software-as-a-service, platform-as-a-service, etc. The course introduces cloud solutions provided by Google, Amazon, and Microsoft.

**HI436: Innovation and Change in Health Information Systems**

**(3C.H=3H+0L)**

***Prerequisite: HI102***

Many of the technologies have a short shelf life because most information technologies come in 18- to 36-month cycles. This course covers the aspect of establishing, leading, and managing innovation in order to thrive the culture in their markets. It introduces students to the key skills needed to generate an innovative culture that leads to relevant product and service offerings. In addition, this course exposes students to the requirements for introducing successful change initiatives and how to develop a culture that is change-capable.



**HI491: Graduation Project 1** (1C.H=1H, 0L)

*Prerequisite: Passing 90 CHs*

This course requires students to gather in groups and decide on a project that needs to be carried out under the supervision of a faculty member. The “Graduation Project Guidelines” set by the department council regulates the steps and the time frame for starting and completing this course. Students must consider the local and global impact of the project on individuals, organizations, and society.

**HI492: Graduation Project 2** (2C.H=2H, 0L)

*Prerequisite: HI491*

This course is a continuation of HI 491 and is also subject to the regulations in the “Graduation Project Guidelines”. The project must provide solutions to individuals, organizations, and society issues.

**HI493: Special Topics in Computer Information Systems 1** (1C.H=1H+0L)

*Prerequisite: None*

This course grants the HI department flexibility in offering courses not included in the curriculum at basic levels.

**HI494: Special Topics in Computer Information Systems 2** (2C.H=2H+0L)

*Prerequisite: None*

This course grants the HI department flexibility in offering courses not included in the curriculum at intermediate levels.

**HI 495: Special Topics in Computer Information Systems 3** (3 C.H=3H+0L)

*Prerequisite: None*

This course grants the HI department flexibility in offering courses not included in the curriculum at advanced levels.