

# Syllabus for HIMT370

## Healthcare Systems Analysis and Design

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**NOTE:** This syllabus document contains the basic information of this course. The most current syllabus is available in the full course.

### Course Description

This is the first course in a two-course sequence that addresses methods and techniques of healthcare information system (IS) analysis and design as performed within the system development life cycle. Course content includes techniques for problem definition, requirements gathering, analysis, logical design, selection, and evaluation of alternative healthcare IS solutions from the point of view of the health provider and user. An emphasis is placed on analysis, development, selection, and evaluation of IS as they relate to healthcare.

### Prerequisite(s)

HIMT 301 Digital Literacy in Healthcare

### Course Outcomes

At the conclusion of this course, you will be able to:

- Explain the System Development Life Cycle (SDLC).
- Distinguish among structured, object-oriented, and agile system development methods.
- Discuss the SDLC and its role in healthcare.
- Comprehend project management techniques.
- Produce SDLC tools, models, and diagrams.
- Apply SDLC techniques to a current healthcare problem.
- Perform clinical and analytical workflows in an electronic health record.

# Course Requirements/Components

## Quizzes

During the course, students will complete a total of 12 quizzes. Quizzes will be timed and consist of 15 multiple-choice and/or true/false questions.

## Case Simulation

A major goal of this course is to give you the opportunity to apply your systems planning, analysis, and design insights to a healthcare information systems problem. In order to achieve this goal, each student will **work through a healthcare information systems case simulation.**

The case simulation is broken up into **ten milestones**, with deadlines scattered throughout the semester. The goal is for the milestones to break the project up into more manageable deliverables and to ensure that you are working on and thinking about the project throughout the entire semester. All milestone reports are to be organized and submitted to the learning management system (LMS) in a single Microsoft Word file when possible. Files should be named “milestone#-firstname-lastname.docx,” all lower case. For example: “milestone1-peter-haried.docx.”

Consider that you are a Healthcare Systems Analyst for **Universal Wellness Group (UWG)**. You have been asked to develop a Healthcare Information System to meet a defined clinical requirement. Evaluate the current system architecture, applications, and data flows using the methods discussed in class, and make a recommendation regarding the new system design.

## EHR Simulation

You will each participate in an EHR project simulation hosted through [EHR Go](#). EHR Go is an electronic health record system designed for education. EHR Go simulates common clinical EHR systems such as VistA, Epic, Cerner, and Meditech to help students develop experience needed for real-world healthcare practice. EHR Go includes a full content library with more than 300 diverse and realistic patient cases and discipline-specific student activities. EHR Go is used by all healthcare disciplines at all degree levels and makes it easy to facilitate experiential interprofessional simulations.

Each of you will complete 10 modules throughout the course to gain valuable experience using an in-practice EHR system. All EHR Go activities must be submitted by the assigned due date.

### *EHR Go Activities*

Below are the EHR Go activities used in this course. Some activities provided by EHR Go have multiple levels, such as an Associate (AS), Bachelor's (BS), or

Master's (MS) level. In those cases, I've provided you with the assignment at the Bachelor's (BS) level.

- **EHR Go Activity #1:** EHR Orientation
- **EHR Go Activity #2:** The Power of the EHR
- **EHR Go Activity #3:** New Patient Registration A
- **EHR Go Activity #4:** Scheduling a Follow-Up Appointment
- **EHR Go Activity #5:** Registering a Patient and Adding Orders
- **EHR Go Activity #6:** Editing Patient Information
- **EHR Go Activity #7:** Creating a Claim
- **EHR Go Activity #8:** Posting Payments and Adjustments
- **EHR Go Activity #9:** Outpatient Encounter
- **EHR Go Activity #10:** EHR Implementation

## Grading

The following grading scale will be used to evaluate all course requirements and to determine your final grade:

Grade	Percentage Range
A	90% - 100%
B	80% - 89%
C	70% - 79%
D	60% - 69%
F	0 - 59%

Assignment	Points
Quizzes (12 x 15 pts)	180
EHR Go Activities 1-9 (9 x 10 pts)	90
EHR Go Activity 10 (1 x 50 pts)	50
Case Simulation (10 milestones x 55 pts)	550
Reflection Report (1 x 115 pts)	115
<b>Total</b>	<b>985</b>