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Introduction

This syllabus contains the policies and expectations I have established for HCIP 6392. Please read the entire syllabus carefully before continuing in this course. These policies and expectations are intended to create a productive learning atmosphere for all students. Unless you are prepared to abide by these policies and expectations, you risk losing the opportunity to participate further in the course.

The standards and requirements set forth in this syllabus may be modified at any time by the course instructor. Notice of such changes will be by announcement in class and by changes to this syllabus posted on the course site on Canvas.

Covid-19 related policies in class

- It is the policy of UNC Charlotte for the Spring 2021 semester that as a condition of on-campus enrollment, all students are required to engage in safe behaviors to avoid the spread of COVID-19 in the 49er community. Such behaviors specifically include the requirement that all students properly wear CDC-compliant face coverings while in buildings including in classrooms and labs. Students are permitted to remove face coverings in classroom or lab settings only when I explicitly grant permission to do so (such as while asking a question, participating in class discussion, or giving a presentation) and while at an appropriate physical distance from others. Failure to comply with this policy in the classroom or lab may result in dismissal from the current class session. If the student refuses to leave the classroom or lab after being dismissed, the student may be referred to the Office of Student Conduct and Academic Integrity for charges under the Code of Student Responsibility.
- Students are expected to attend every class and remain in class for the duration of the session when it is safe to do so in accordance with university guidance regarding COVID-19. Failure to attend class or arriving late may impact your ability to achieve course objectives which could affect your course grade. An absence, excused or unexcused, does not relieve a student of any course requirement. Regular class attendance is a student’s obligation, as is a responsibility for all the work of class meetings, including tests and written tasks. Any unexcused absence or excessive tardiness may result in a loss of participation points.
- Students are encouraged to work directly with their instructors regarding their absence(s). For absences related to COVID-19, please adhere to the following:
 - Do not come to class if you are sick. Please protect your health and the health of others by staying home. Contact your healthcare provider if you believe you are ill.
 - If you are sick: If you test positive or are evaluated by a healthcare provider for symptoms of COVID-19, complete this form to alert the University. Representatives from Emergency Management and/or the Student Health Center will follow up with you as necessary, and your instructors will be notified.

- If you have been exposed to COVID-19 positive individuals and/or have been notified to self-quarantine due to exposure, complete this form to alert the University. Representatives from Emergency Management and/or the Student Health Center will follow up with you as necessary, and your instructors will be notified.
- To return to class after being absent due to a COVID-19 diagnosis or due to a period of self-quarantine, students should submit an online request form to Student Assistance and Support Services (SASS). Supporting documentation can be attached directly to the request form and should be from a student's health care provider or the Student Health Center, clearly indicating the dates of absences and the date the student is able to return to class. Instructors will be notified of such absences.
- If you are absent from class as a result of a COVID-19 diagnosis or quarantine, as instructor I will do my best to help you keep pace with the class by remote learning and assignments on a case-by-case basis. The final decision for approval of all absences and missed work is determined by the instructor.

Mutual respect in class

- I will conduct this class in an atmosphere of mutual respect. I encourage your active participation in class discussions. Each of us may have strongly differing opinions on the various topics of class discussions. The conflict of ideas is encouraged and welcome. The orderly questioning of the ideas of others, including mine, is similarly welcome. However, I will exercise my responsibility to manage the discussions so that ideas and argument can proceed in an orderly fashion. You should expect that if your conduct during class discussions seriously disrupts the atmosphere of mutual respect I expect in this class, you will not be permitted to participate further.
- All students and the instructor are expected to engage with each other respectfully. Unwelcome conduct directed toward another person based upon that person's actual or perceived race, actual or perceived gender, color, religion, age, national origin, ethnicity, disability, or veteran status, or for any other reason, may constitute a violation of University Policy 406, The Code of Student Responsibility. Any student suspected of engaging in such conduct will be referred to the Office of Student Conduct.

Permission for recording in class

- Electronic video, image capture, and/or audio recording is not permitted during class, whether conducted in person or online, unless the student obtains permission from the instructor. If permission is granted, any distribution of the recording is prohibited. Students with specific electronic recording accommodations authorized by the Office of Disability Services do not require instructor permission; however, the instructor must be notified of any such accommodation prior to recording. Any distribution of such recordings is prohibited.

Course Description

Healthcare enterprises generate a significant amount of health related data everyday. They provide one of the main sources of data for practitioners of health informatics and analytics. Therefore, it is critically important that every health informatician has a good understanding of how various information systems in healthcare enterprises work together to support the complex process of patient care while collecting

useful healthcare data throughout the process. In this course we will study (a) the history, evolution, state-of-art, and issues of healthcare information systems; (b) major information systems in a healthcare enterprise and how they are designed, tested and installed; and (c) the evaluation and adoption of clinical, administrative, and specialty information technology applications for health organizations. Our discussions will center on three specific systems: the electronic health record system (EHR), the picture archiving and communication system (PACS), and the enterprise clinical data warehouse system. We will achieve the goals by lectures and discussions, laboratory exercises (on real Health Information Systems), practical case studies, homework and projects.

Pre-requisites

Registered as a HIA PSM student.

Course Objectives

- Understand and apply fundamental concepts of health information systems
- Understand fundamental methods to design, implement, test, and maintain health information systems
- Understand key healthcare industry standards
- Gain experience in using health information systems to understand the operations of these systems and the importance and challenges of health system interoperability and data integration

Like any other skill, your understanding of these concepts will develop only through extensive reading, writing, and practice.

Topic Outlines

- Healthcare data
- Health information systems
- Population health management
- System acquisition
- System implementation and support
- Assessing and achieving value
- System integration
- Health standards
- Electronic health record system (EHR)
- Picture archiving and communication system (PACS)
- Clinical data warehouse system (CDW)

Instruction Method

This course will use a combination of online instructions, lab experiments, group projects, and , classroom instruction when it is safe.

Expectations

- Work hard
- Show up on time

- Participate actively
- Address issues proactively

Course Material

Main Textbook:

"Healthcare Information Systems: a Practical Approach to Health Care Management (fourth Edition) by Karen A. Wager, Frances Wickham Lee and John P. Glaser, 2017, John Wiley & Sons.

E-textbook at:

<https://ebookcentral.proquest.com/lib/uncc-ebooks/detail.action?docID=4815068&pq-origsite=primo>

Additional material will be available on the Course Web Site

Assignments and Grade Determination

Quizzes and exams (50%)	Quizzes on the concepts studied in the previous weeks. Mid-term and final exams will be given to assess understanding of concepts and methods if needed. Alternatively, a more extensive project may take the place of one or both of the exams.
Labs and projects (30%)	The labs and projects will give you the opportunity to explore one or more concepts in more depth and apply these concepts in small realistic applications
Homeworks (20%)	You will have homework assignments due for almost every class period.
Attendance	You are expected to attend every class meeting. See below.
Class Participation	Required. See below.

Final letter grades are assigned as follows:

- A = 90% or above
- B = 80% or above
- C = 70% or above
- F = below 70%

Class Preparation

This class is designed so that we can spend our limited, valuable class time answering questions, working out problems, and advancing what you already should have learned on your own while preparing for class. That means that you are expected to learn most of the basic material on your own before we meet for class. If you regularly attend class unprepared, please drop this course now and register for another. If you regularly attend class prepared, you're going to learn a lot.

Attendance

You are expected to attend (and participate positively in) every class meeting. If you are absent on any particular day, then we will all just assume that you have a very good reason for being absent. If a pattern of absences develops, we will deal with it individually and appropriately, including setting individualized attendance requirements.

Positive Class Participation

Positive class discussion and activity is perhaps the most important factor in making the course interesting and fun. Those of you who have a documented (with the University) learning disability that would prevent you from participating in class discussion should notify me early on. Those of you who feel that your learning style is not conducive to participating in class discussion should see me no later than the end of the first week of class.

Late Policy

Your assignments are considered late if they are not completed by the stated due date and time. If your assignment is late, you will usually have seven additional days to complete it for late credit (depending on whether anything contrary has been stated in the syllabus or assignment instructions.) Late credit equals a 20 point (or approximately a 20%) reduction to the grade you would have received. For example, if you would have received a grade of 90% for completing a particular assignment, you will receive a grade of 70%.

Extensions

Should you desire an extension for some reason, you must discuss it with me before the assignment is due.

Topics and Assignments

The latest reading and assignments list is always available on the course web site. We will likely update this list as we proceed throughout the semester. You are responsible for getting up-to-date information on the current readings and assignments.

Syllabus Subject to Change

The instructor reserves the right to alter this syllabus based on best practices that fit changing circumstances.

University Policies

Code of Student Responsibility:

“The *UNC Charlotte Code of Student Responsibility* (the Code) sets forth certain rights and responsibilities in matters of student discipline. The Code defines these responsibilities and guarantees you certain rights that ensure your protection from unjust imposition of disciplinary penalties. You should familiarize yourself with the provisions and procedures of the Code” (Introductory statement from the UNC Charlotte brochure about the Code of Student Responsibility). The entire document may be found at this Internet address: <http://legal.uncc.edu/policies/ps-104.html>

Academic Integrity:

All students are required to read and abide by the Code of Student Academic Integrity. Violations of the Code of Student Academic Integrity, including plagiarism, will result in disciplinary action as provided in the Code. Students are expected to submit their own work, either as individuals or contributors to a group assignment. Definitions and examples of plagiarism and other violations are set forth in the Code. The Code is available from the Dean of Students Office or online at: <http://www.legal.uncc.edu/policies/ps-105.html>.

Faculty may ask students to produce identification at examinations and may require students to demonstrate that graded assignments completed outside of class are their own work.

Course Credit Workload.

This 3-credit course requires 3 hours of classroom or direct faculty instruction and 6 hours of out-of-class student work each week for approximately 15 weeks. Out-of-class work may include but is not limited to: required reading and video viewing, written assignments, and studying for quizzes and exams.

Special Needs: If you have a documented disability and require accommodation in this course, contact Disability Services, Fretwell 230, phone: 687 4355 voice/TDD the first week of the semester. Information about available services may be found at <http://legal.uncc.edu/policies/ps-51.html>. Accommodations for learning will be arranged by that office and communicated to the Instructor. If you speak English as a second language, please inform the instructor.

Diversity Statement:

UNC Charlotte strives to create an academic climate in which the dignity of all individuals is respected and maintained. Therefore, we celebrate diversity that includes, but is not limited to ability/disability, age, culture, ethnicity, gender, language, race, religion, sexual orientation, and socio-economic status.

All students are required to abide by the UNC Charlotte Sexual Harassment Policy (<http://www.legal.uncc.edu/policies/ps-61.html>) and the policy on Responsible Use of University Computing and Electronic Communication Resources (<http://www.legal.uncc.edu/policies/ps-66.html>). Sexual harassment, as defined in the UNC Charlotte Sexual Harassment Policy, is prohibited, even when carried out through computers or other electronic communications systems, including course-based chat rooms or message boards.

Religious Accommodation:

It is the obligation of students to provide faculty with reasonable notice of the dates of religious observances on which they will be absent by submitting a [Request for Religious Accommodation Form](#) to their instructor prior to the census date for enrollment for a given semester <http://legal.uncc.edu/policies/ps-134.html> . The census date for each semester (typically the tenth day of instruction) can be found in UNC Charlotte's Academic Calendar (<http://registrar.uncc.edu/calendars/calendar.htm>) .