

Intersecting Medication Safety and Technology

PHA6935

Class Periods: Sundays, 7:00-9:00pm Eastern

Location: Zoom

Instructor:

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Office Hours: By appointment

Office Location: Virtual/Zoom

Course Description

This course in the Master of Science in the Medication Safety and Quality Systems track will provide the participant with an overview of current medication safety technology being used in healthcare today. Discussions will surround a review of the function and purpose of the technology, how it improves safety by preventing certain types of medication errors, how staff members circumvent the safety features, and review cases of medication errors that occurred while using the safety technology. Technology to be covered during the course includes: barcode medication administration, computerized provider order entry, automated dispensing cabinets, infusion smart pumps, clinical decision support, robots and IV workflow technology.

The class will consist of mandatory readings, quizzes, online discussion board posts, online weekly class meetings, and a final paper.

Course Pre-Requisites / Co-Requisites

Cases reviewed in class assume students have a baseline knowledge of medications.

Course Objectives

- a. Define core medication safety terminology
- b. Compare and contrast core patient safety technologies commonly used in healthcare today
- c. Summarize the core technology's main functions and evaluate what error types are prevented by using this technology
- d. Identify at-risk behaviors with safety technology and describe its influence on medication errors
- e. Review error cases that still occurred while using the technology

Required Textbooks and Software

There is no specific required textbook for this course. Instead, reading assignments from online textbooks, journal articles, lay media articles, and websites will be assigned for each module. In this manner, students will have access to the latest information in the ever-changing landscape of information.

Recommended Materials

None

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Course Schedule

Date	Topic
10/17	No Class.
10/24	Module 1: Definitions, Terms, & Background information
10/31	Module 2: Barcode Medication Administration (BCMA)
11/7	Module 3: Infusion Smart Pumps
11/14	Module 4: Clinical Decision Alerts
11/21	Module 5: Computerized Provider Order Entry (CPOE)
11/28 (Thanksgiving)	Module 6: Automated Dispensing Cabinets (ADCs)
12/5	Module 7: Robots and IV Workflow Technology
12/12	No Class. Final Paper Due by 12/12/21 @ 2359

Evaluation Methods

Class participation: Class participation is mandatory. Discussion board participation, class attendance, and participation in class discussion will be used to award **33%** of the final grade. There are 7 modules of participation grades; thus, each module will contribute **~4.7%** towards your final grade.

Discussion board posts: Students will be required to post a minimum of 4 times per module **on at least 3 separate days**. Two of the posts will answer provided prompt questions; each of these posts must be at least 250 words and contain 1 or more references (in AMA format). Two other posts will be substantive comments made in response to other posts made by fellow students/the professor (one response per provided prompt question). **Exception** will be for Module 1, only one discussion board post is required and will not require references; due by the day of class 10/24/21 at 12 PM.

Online quizzes: This course will consist of mandatory readings and videos that must be reviewed before each quiz. The quiz will be available for the 48 hours before each class. The quiz will close by 3 pm on Sundays. Quizzes will include 10 multiple choice or short-answer questions over a 15-minute period. There will be 7 quizzes and 1 lowest quiz grade will be dropped. The purpose of the quizzes will be to assess readiness for the class discussions and understanding of the course materials. The quiz average will contribute **33%** towards the final grade in this course (i.e., each quiz will contribute **5.5%** towards your final grade).

Final Paper: Students will identify a topic for a paper and submit it to the course coordinator for approval. Submit topics for approval before class #3 (due the Saturday before class). Pre-selected topics are provided for the students to choose from or the student may submit their own topic. The paper should be a minimum of 5 pages and a maximum of 7 pages using an 11-pt font, 1.5-line spacing, and 1-inch margins for the top, bottom, and sides. For this class, one page is equivalent to ~400 words. Appropriate attribution is mandatory utilizing AMA formatting; plagiarism will be assessed using TurnItIn. References should be sequentially numbered and listed as a superscript at the end of a sentence and sequentially at the end of the paper. All papers will be due by Dec 12, 2021 at 2359. The final paper will contribute to **33.34%** of your final grade.

Evaluation of Grades

Assignment	Total Points	% of Final Grade
Class Participation* <i>*Discussion board participation/posts, class attendance, and class participation will be used to award a participation score per module</i>	60 total	~4.7% each module (33.33% total)
Online quizzes (6 of 7; lowest grade will be dropped) <i>Dropped for technical problems or excused absences</i>	10 each (60 total)	5.5% each (33.33% total)

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<i>Assignment</i>	<i>Total Points</i>	<i>% of Final Grade</i>
Final Paper [topic approved by the course coordinator] <i>Grades will be based on a rubric following the assignment directions</i>	60	33.34%
Total	180	100%

Attendance Policy

Students are expected to attend the synchronous class meetings every Sunday from 7-9 pm. Students who miss 30 minutes or more of the synchronous class meeting are considered absent. **Unexcused absences** from the synchronous class meetings carry a 4-percentage point (~1/2 letter grade) reduction in the final grade. **Excused absences** require a make-up paper to be submitted within 2 weeks of the missed class (unless the class is near the end of the semester and a shorter timeline will be required). Contact the instructor for specifics on the make-up paper. Absences are considered excused when the student (not a peer) has emailed the instructor before the synchronous class meeting begins and conveys why the student will miss class, such as illness, job conflict, and other emergencies. The instructor can be contacted via email (preferred) or text (listed above). Two or more excused absences will be addressed by the course coordinator and may result in an incomplete final grade for the course.

Make-up Policy

Assignments that are not submitted by the due date will be given a zero. Make up assignments are not usually given, but may be offered at the discretion of the course instructor after evaluation of the circumstances leading to the request.

Grading Policy

A	>92.500%
A-	89.500–92.499%
B+	86.500–89.499%
B	82.500–86.499%
B-	79.500–82.499%
C+	76.500–79.499%
C	72.500–76.499%
C-	69.500–72.499%
D+	66.500–69.499%
D	62.500–66.499%
D-	59.500–62.499%
E	<59.499%

More information on UF grading policy may be found at:

[UF Graduate Catalog](#)
[Grades and Grading Policies](#)

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Students Requiring Accommodations

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the [Disability Resource Center](#). It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. [Click here for guidance on how to give feedback in a professional and respectful manner](#). Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via ufl.bluera.com/ufl/. [Summaries of course evaluation results are available to students here](#).

University Honesty Policy

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." [The Honor Code](#) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

There are federal laws protecting your privacy in terms of grades earned in courses and on individual assignments. For more information, please see the [Notification to Students of FERPA Rights](#).

Recordings of weekly class sessions in Zoom are created for the purpose of course teaching and learning, as well as for use as a resource for students who miss a class session.

The use of video (or web camera) feature in Zoom is not a requirement, but rather is voluntary for meeting participants. For both the audio and video features in Zoom, you will have the option to Start or Stop these functions.

Students who participate with their camera engaged or who utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

[Zoom Software Privacy Statement](#)
[Canvas \(by Instructure\) Privacy Policies](#)

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Campus Resources:

Health and Wellness

U Matter, We Care:

If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: counseling.ufl.edu/cwc, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or police.ufl.edu.

Academic Resources

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling.

Library Support, Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.

Student Complaints Campus

On-Line Students Complaints