

PHA5226C Patient Safety and Quality in Pharmacy

Term, 2020
2 Credit Hours – [A-E Grading]

This course focuses on the assessment of patient care. Quality improvement (QI) principles are used to provide the best possible care by the adoption of information technology and systems that reward rather than impede quality. Patient safety is an important component of quality pharmacotherapy. The appropriate reactions to adverse drug events and the anticipation of medication errors enable the implementation of systems to prevent and minimize patient risk. Quality assessment and improvement exercises will be introduced to identify and review variation in pharmacotherapy processes and outcomes. Students will use published evidence to identify targets for quality improvement, to formulate strategies to identify high-risk patients and to improve patient care and to define process and outcome measures to evaluate pharmacotherapy outcomes.

Teaching Partnership Leaders

Amie Goodin, PhD, MPP

- Email: amie.goodin@ufl.edu
- Office: Tuesdays 9 – 10 am (during course dates). Please see Canvas for Zoom ID.

Scott Martin Vouri, PharmD, PhD

- Email: SVouri@ufl.edu
- Office: Mondays thru Fri 8 – 9 am (during course dates). Please see Canvas for Zoom ID.

See Appendix A. for Course Directory of Faculty and Staff Contact Information.

Entrustable Professional Activities

This course will prepare you to perform the following activities which the public entrusts a Pharmacist to perform:

1. EPA A8. Collaborate as a member of an interprofessional team.
2. EPA B1. Form clinical/practice-related questions and retrieve evidence to advance patient care.
3. EPA C1. Identify system failures and contribute to a culture of safety and improvement.
4. EPA C2. Recommend solutions to needs in the medication use system and the healthcare system.

Course-Level Objectives

Upon completion of this course, the student will be able to:

1. Define questions related to quality medication use and use continuous quality improvement techniques in the medication use process.

2. Find and evaluate published medical literature for use in clinical decision-making and quality improvement.
3. Identify opportunities for changes in practice that are feasible and effective for improving patient outcomes.
4. Describe how to design, implement, and evaluate quality improvement programs.
5. Describe the role of the pharmacist in the improvement of quality deficits in the medication use system.
6. Monitor and evaluate the effectiveness and safety of care and implement improvements in collaboration with other health care professionals and the patient/care giver. The following are continually monitored and evaluated:
 - a. Medication appropriateness, effectiveness, safety, and patient adherence through available data, biometric test results and patient feedback.
7. Manage patient healthcare needs using human, financial, technological, data analysis, and physical resources to optimize the safety and efficacy of medication use systems.
 - a. Apply methods to improve patient safety.

Course Pre-requisites

1. Completion of all Year 2 Pharm.D. program coursework including milestones.

Course Co-requisites

1. PHA5165L Professional Practice Skills Lab V

Required Textbooks/Readings

1. Terri L. Warholak, David P. Nau (Editors). Quality & Safety in Pharmacy Practice. New York, NY: McGraw- Hill Medical; 2010. ISBN 978-0-07-160385-0.
 - Available via HSC Library – Access Pharmacy
- Textbook URL: <http://accesspharmacy.mhmedical.com/book.aspx?bookID=452>

Use [UF VPN to access UF Libraries Resources](#) when off-campus. The UF HSC library staff can assist you with questions or issues related to accessing online library materials. For assistance contact your College of Pharmacy librarian or visit the [HSC Library Website](#) at this URL: <http://www.library.health.ufl.edu/>

Suggested Textbooks/Readings

All suggested materials will be posted on Canvas.

Other Required Learning Resources

None

Materials & Supplies Fees

None

Student Evaluation & Grading

Evaluation Methods and How Grades are calculated.

Assessment Item	Grade Percentage
Individual Readiness Assessments [5 @ 3% ea.]	15%
Team Readiness Assessments [5 @ 2% ea.]	10%
Assignment 1: Project Introduction and Objectives	25%
Assignment 2: QI Methods and Evaluation	25%
Final Exam	25%
Total	100%

Table 1. Grading Scale

Percentage Range	Letter Grade
92.50-100%	A
89.50-92.49%	A-
86.50-89.49%	B+
82.50-86.49%	B
79.50-82.49%	B-
76.50-79.49%	C+
72.50-76.49%	C
69.50-72.49%	C-
66.50-69.49%	D+
62.50-66.49%	D
59.50-62.49%	D-
< 59.50%	E

Rounding of grades:

Final grades in Canvas will be rounded to the 2nd decimal place. If the decimal is X.495 or higher, Canvas will round the grade to X.50. The above scale depicts this policy and grades are determined accordingly. Grade assignment is made using this policy and NO EXCEPTIONS will be made in situations where a student's grade is "close."

Educational Technology Use

The following technology below will be used during the course and the student must have the appropriate technology and software.

1. ExamSoft™ Testing Platform
2. Canvas™ Learning Management System

For technical support, navigate to [Educational Technology and IT Support Contact Information](#) at this URL: <http://curriculum.pharmacy.ufl.edu/current-students/technical-help/>

Pharm.D. Course Policies

The Policies in the following link apply to this course. Review the [Pharm.D. Course Policies](#) carefully, at this URL: <http://curriculum.pharmacy.ufl.edu/current-students/course-policies/>

Course Evaluation Process

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

Appendix A. Course Directory

Teaching Partnership Leader/Course Director:

Amie Goodin, PhD, MPP

Email: amie.goodin@ufl.edu

Office: HPNP 3319

Scott Martin Vouri, PharmD, PhD

Email: SVouri@ufl.edu

Office: HPNP 3324

Questions to Ask:

- Questions about grades
- Concerns about performance
- Guidance when there are performance problems (failing grades)
- General questions about content

Instructional Designer

Name: Elliot Tordoff

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Academic Coordinator:

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Educational Coordinators:

Name: McKenzie Wallen

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Office: Jacksonville Campus

Name: Iverta Allen

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Office: Orlando Campus

Questions to Ask:

- Issues related to course policies (absences, make up exams, missed attendance)
- Absence requests (Only the Academic Coordinator handles absence requests)
- Questions about dates, deadlines, meeting place
- Availability of handouts and other course materials
- Assignment directions
- Questions about grade entries gradebook (missing grades, wrong grade)
- Assistance with ExamSoft® (Distant campus students may contact Education Coordinator for use of SofTest and assistance during exams. The Academic Coordinator is the contact person for issues related to grading and posting of ExamSoft grades.)

Appendix: Course Outline:

Date Recommended Dates for Independent Study	Delivery Date	Mod #	Unit Topic	Contact Time [hr.]a	Responsible
		1	Module 1:Patient Safety in Medication Use		
9/7/20		1.1	Watch: Intro Video and Intro to Course Project	0.25	Goodin, Vouri
9/7/20			Watch: "The FDA Talks Medication Errors" and "Medication Errors Frequent for Children"	0.25	
9/7/20			Read: Chapter 1 – Quality and the Future of Healthcare	0.25	
9/8/20		1.2	Watch Medication Misadventures	0.75	Vouri
9/8/20		1.3	Watch: Watch: Root Cause Analysis	0.75	Goodin
9/8/20		1.4	Practical Applications of Medication Safety Principles	0.5	Tucker
9/9/20			Read: Chapter 2: Understanding Problems in the Use of Medications	1	
9/9/20		1.5	Watch: The Sabastian Ferrero Case	0.25	Usmani
	9/11/20 10:40 am - 12:35 pm	1-2	Active Learning Session 1: Medication Errors and Root Cause Analysis	2	Goodin, Vouri

			ALS 1: iRAT 1 QUIZ (graded) & tRATS (ungraded survey)		Goodin, Vouri
		2	Module 2: Quality Improvement		
9/10/20	2.1	Watch: What is Quality Improvement?	0.75		Winterstein
9/10/20	2.2	Watch: Quality Improvement Interventions	0.75		Scott Vouri
9/10/20	2.3	Watch: Quality Improvement and Research Goals	0.5		Scott Vouri
9/14/20	2.4	Watch: Quality Deficits (Quality Gaps) (PDF)	0.75		Goodin, Vouri
9/14/20	2.5	Watch: Quality Measures	0.75		Winterstein
9/15/20		Read: Medication Errors and Pharmacist Performance Metrics	1		
9/15/20		Read: Pharmacy Quality Alliance (PQA) Quality Measure Overview	0.25		
9/15/20		Read: Developing an Opioid Use Disorder Treatment Cascade: A Review of Quality Measures	0.75		
	9/16/20 10:40 am - 12:35 pm	1-3	Active Learning Session 2: Developing a Measurement Framework for a Quality Improvement Plan	2	Goodin, Vouri
			iRAT 2		Goodin, Vouri
		3	Module 3: Study Design in Quality Improvement		
9/17/20	3.1	Watch: Cluster Randomized Control Trials	0.5		Goodin
9/17/20	3.2	Watch: Quasi-Experimental Study Designs	0.5		Castillo
9/18/20	3.3	Watch: How to Evaluate Quality Improvement Quasi-Experimental Studies	1		Goodin
9/18/20		Read: Evidence-based Quality Improvement: The State of the Science	0.75		
9/21/20		Read: Quasi-Experimental Study	0.5		
9/21/20		Read: Cluster RCT Study	0.5		
	9/23/20 10:40 am - 12:35 pm	1-4	Active Learning Session 3: Developing a Measurement Framework for a Quality Improvement Plan	2	Goodin
			iRAT 3 quiz located in ALS 3.		Goodin
		4	Module 04: Practical Applications to Improve Quality		
9/24/20	4.1	Watch: Practical Applications of Technology to Improve Quality	1		Lemon
9/25/20	4.2	Watch: Practical Applications of Quality Improvement in Community Pharmacy	0.5		Curtis
9/25/20	4.3	Watch: Practical Applications of Quality Improvement in Health System Pharmacy	1		Rosenberg

9/28/20	4.4	Watch: Data Management in Excel for Pharmacy QI	1.5	Goodin, Vouri
	4.5	Watch: Data analysis in Excel for Pharmacy QI	1	Goodin
9/30/20 10:40 am - 12:35 pm	1-4	Active Learning Session 4: Data Science Applications	2	Goodin, Vouri
		iRAT 4 in ALS4		Goodin, Vouri
	5	Data Science in Pharmacy		
10/1/20	5.1	Watch: Pharmacy Data Visualizations for Quality Improvement, Part 1	1.5	Goodin, Vouri
10/1/20	5.2	Watch: Pharmacy Data Visualizations for Quality Improvement , Part 2	1	Goodin
10/2/20	5.3	Watch: Identifying Public Data Sources and Tools	0.5	Vouri
10/2/20		Assignment 1 Due: Project Introduction and Objectives		
10/07/20 10:40 am - 12:35 pm		Active Learning Session 5: Creating Pharmacy Data Visualizations	2	Goodin, Vouri
10/14/20		Assignment 2: QI Methods and Evaluation		Goodin, Vouri
10/16/20 8:30 - 10:30 am		Final Exam	2	Goodin, Vouri
		Total Contact Hours in Course	32.75	