PHA5070 Pharmacotherapy for Pediatric and Geriatric Patients

Fall 2019
2 Credit Hours – A-E Grading

This course focuses on the care of special populations of patients that are encountered in pharmacy practice. During the course, students will apply their knowledge by solving problems of a patient family that includes pediatric and geriatric patients. During the course, special characteristics of each population will be explored. Also, drug absorption, distribution, metabolism, and elimination of these two populations will be compared along with the unique dosing and drug administration approaches for each population.

Teaching Partnership Co-Leaders

Katie Vogel-Anderson, Pharm.D., BCACP

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Kalen Manasco, Pharm.D., BCPS, FPPAG

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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 A1**. Collect subjective and objective data by performing a patient assessment and gathering data from chart/electronic records, pharmacist records, other health professionals and patient/family interviews.
2. **EPA A2.** Interpret patient data, and identify medication-related problems and develop a prioritized problem list.
   EPA A5. Provide counseling and medications and health wellness (including referral when there are social determinants of health and disparities).
3. **EPA A6.** Assess and counsel a patient about health-wellness.
4. **EPA A7.** Present a succinct oral patient summary and plan to a health care provider. Defend a therapeutic plan verbally or in writing using references, guidelines, or primary literature.

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Course-Level Objectives

Upon completion of this course, the student will be able to:
1. Describe different career opportunities available for pharmacists working with special populations.
2. Explain the challenges of providing pharmaceutical care to special populations.
3. List developmental factors that affect the processes of absorption, distribution, metabolism and elimination
4. Discuss important age-related differences related to both the pharmacokinetic parameters and drug efficacy and toxicity
5. Describe wellness management of special populations (immunizations, nutrition, monitoring of growth and development)
6. Using knowledge about different stages of development, begin to be able to communicate effectively with special populations.
7. Consider ethics and communication strategies when participating in the care of the special populations
8. Utilize functional knowledge and critical thinking skills to synthesize a comprehensive patient care plan

Course Pre-requisites

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

Course Co-requisites

1. None

Course Outline

Please routinely check your campus calendar and the Canvas course site for any messages about changes in the schedule including meeting dates/times, deadlines, and room changes.

Date and Time	Mod #	Activity	Unit Topic	Contact Hr	Faculty	Objectives
	1	Module	Module 1: Introduction to the Pediatric and Geriatric Patient Population	0		1, 2
	1.1	Unit	Unit Title	0		
	1.1	Video Lecture	Watch: Introduction to the Pediatric Patient Population	1	Kalen Manasco, Katherine L Vogel Anderson	

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	1.2	Video Lecture	Watch: Introduction to the Geriatric Patient Population	1	Kalen Manasco, Katherine L Vogel Anderson	
		Reading	Read: Geriatric Patient Population Article	1	Kalen Manasco, Katherine L Vogel Anderson	
		Assignment Graded	Assignment: Submit one question about special populations or career opportunities to be discussed in class via Canvas discussion board prior to class	0		
12/2/19 from 12:15-2:05pm	1.1	Active Learning Session--VC	Active Learning Session 1: Introduction to the Course	2	Kalen Manasco, Katherine L Vogel Anderson	
	2	Module	Module 2: Wellness Management	0		5
	2.1	Video Lecture	Watch: Developmental Pharmacokinetics	1		
	2.2	Video Lecture	Watch: Pharmacokinetics of Aging	1		
	2.3	Video Lecture	Watch: Wellness Management in Pediatric Patient Population	1		
		Reading	Read: Journal Article - Lu H, Rosenbaum S. Developmental pharmacokinetics in pediatric populations. Journal of Pediatric Pharmacology and Therapeutics 2014;19:262-76. Available via the HSC library website on PubMed.	1		
		Reading	Read: Pharmacokinetics of Aging	1		
	2.4	Video Lecture	Watch: Wellness Management in Geriatric Patient Population	1		
		Reading	Read: Wellness Management in Geriatric Patient Population	1		
12/4/19 from 12:15-2:05pm		Active Learning Session--VC	Active Learning Session 2 : Wellness Management	2	Kalen Manasco, Katherine L Vogel Anderson	
12/6/19 from 2:00-4:00pm	1-2	Exam	Exam 1	2		

	3	Module	Module 3: Dosing and Administration Consideration for Pediatric and Geriatric Patients		Kalen Manasco, Katherine L Vogel Anderson	4-6
		Reading	Read: Journal Article - Pharmacists work to make medications safer for pediatric patients. Pharmacy Today 2017; 4: 38-41. Access article at http://pharmacytoday.org/article/S10 42-0991(17)30393-6/pdf.	1		
		Reading	Read: Journal Article - Abraham O, Brothers A, Alexander DS, Carpenter DM. Pediatric medication use experiences and patient counseling in community pharmacies: perspectives of children and parents. Journal of the American Pharmacists Association 2017;57:38-46. Access article at www.japha.org.	1		
		Assignment Graded	Assignment: Dosing Calculations			
12/11/19 from 12:15-2:05pm	3	Active Learning Session--VC	Active Learning Session 3 : Dosing and Administration Considerations for Pediatric and Geriatric Patients	2	Kalen Manasco, Katherine L Vogel Anderson	
	4	Module	Module 4: Communication with the Pediatric and Geriatric Patient		Kalen Manasco, Katherine L Vogel Anderson	6, 7
	4.1	Video Lecture	Watch: Communication with the Pediatric Patient	1		
		Reading	Read: Communication with the Pediatric Patient Article	1		
		Reading	Read: Communication with the Pediatric Patient Article	1		
	4.2	Video Lecture	Watch: Communication with the Geriatric Patient	1		
		Reading	Read: Communication with the Geriatric Patient Article	1		
		Reading	Read: Communication with the Geriatric Patient Article	1		

Date		Type	Description	Contact	Instructor	Obj
12/12/19 from 12:15-2:05pm	4	Active Learning Session--VC	Active Learning Session 4: Communication with the Pediatric and Geriatric Patient	2	Kalen Manasco, Katherine L Vogel Anderson	
12/13/19 @ 11:59pm		Assignment Graded	Assignment: Group Presentation. Submit to Canvas prior to class			
12/16/19 from 12:15-2:05		Active Learning Session--VC	Active Learning Session 5: Group Presentations	2	Kalen Manasco, Katherine L Vogel Anderson	8
12/17/19 from 1:00-3:00pm	1	Exam	Final Exam: Cumulative	0		1-8
			Total Contact Time in Course:	**30**		

Required Textbooks/Readings

1. AccessPharmacy, McGraw-Hill Professional, New York, NY (This resource is available through the UF Health Science Center Library.)
   - Dipiro, J, Talbert R, Yee G, Matzke G, Wells B, Posey L. Pharmacotherapy – A pathophysiologic approach. McGraw-Hill Professional, New York, NY, 10th Edition, 2017. ISBN-13: 978-1259587481; ISBN-10: 1259587487 (Available in Access Pharmacy)
   - 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

1. Krinsky DL, Ferreri SP, Hemstreet B, et al. Handbook of nonprescription drugs: An interactive approach to self-care. 18th ed. Washington, D.C.: American Pharmacists Association; 2015.
2. Carpenter DM, Abraham O, Alexander DS, Horowitz K. Counseling of children and adolescents in community pharmacies: results from a 14-day observational study. Journal of the American Pharmacists Association 2016;56:266-269. Access article at www.japha.org.

Other Required Learning Resources

None

Materials & Supplies Fees

None

Student Evaluation & Grading

Evaluation Methods and How Grades are calculated.

Assessment Item	Grade Percentage
Midterm	30%
Final exam	30%
In-Class Participation/Assignments	20%
Final group presentation	20%
Total	100%

Table 1. Grading Scale

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."

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

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/

Appendix A. Course Directory

Teaching Partnership Leaders/Course Directors:

Katie Vogel-Anderson, Pharm.D., BCACP
Email: kvanderson@cop.ufl.edu
Office: HPNP 3313
Phone: 352-273-6240
Office Hours: By appointment ONLY.

Kalen Manasco, Pharm.D., BCPS, FPPAG
Email: kmanasco@cop.ufl.edu
Office: HPNP 3310
Phone: 352-294-8749
Office Hours: By appointment ONLY.

Questions to Ask:

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

Instructional Designer

Julie Thomas
Email: julie.thomas@ufl.edu
Office: HPNP 4312
Phone: 352-294-9294

Academic Coordinator:

Natalie Hasty
Email: nataliehasty@cop.ufl.edu
Office: HPNP 4312
Phone: 352-273-6008
Absence/Tardy Email: absent2pd@cop.ufl.edu or absent3pd@cop.ufl.edu

Questions to Ask:

- Issues related to course policies (absences, make up exams, missed attendance)

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- Absence/tardy 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 in gradebook (missing grades, incorrect grade)
- Assistance with ExamSoft® (Distance campus students may contact the Educational Coordinator for use of Examplify and assistance during exams. The Academic Coordinator is the contact person for issues related to grading and posting of ExamSoft grades.)

Educational Coordinators:

McKenzie Wallen
Email: mwallen@cop.ufl.edu
Office: Jacksonville Campus

Iverta Allen
Email: iallen1@cop.ufl.edu
Office: Orlando Campus

Appendix B. Group Presentation Rubric

	Exemplary 10	Accomplished 7	Developing 5	Beginning 3
Organization	Information presented in logical, interesting sequence, is accurate and very comprehensive	Information in logical sequence, is accurate and comprehensive	Difficult to follow presentation-- student jumps around or material; is either not accurate or not comprehensive	Cannot understand presentation; content is not accurate and not comprehensive
Subject Knowledge	Demonstrates full knowledge by answering all class questions with explanations and elaborations	At ease with expected answers to questions but does not elaborate	Uncomfortable with information and is able to answer only rudimentary questions	Does not have a grasp of the information. Cannot answer questions about subject
Graphics	Explain and reinforce screen text and presentation, information is in sufficient detail but not overwhelming	Relate to text and presentation, lacks sufficient detail or overwhelming amount of detail	Occasionally uses graphics that rarely support text and presentation	Uses superfluous graphics or no graphics
Research	Uses a variety of sources in reaching accurate conclusions (at least 5 sources that are primary, secondary, or tertiary sources.) All sources are properly cited using an approved format.	Uses a variety of sources in reaching conclusions (does not use 5 sources or does not use a variety of sources that are primary, secondary, or tertiary in nature)	Presents only evidence that supports a preconceived point of view (uses l or 2 sources or citations are incomplete	Does not justify conclusions with research evidence (no sources cited)
Oral Presentation Elocution/Eye Contact	Maintains eye contact and pronounces all terms precisely. All audience members can hear.	Maintains eye contact most of the time and pronounces most words correctly. Most audience members can hear presentation	Occasionally uses eye contact, mostly reading presentation, and incorrectly pronounces terms. Audience members have difficulty hearing	Reads with no eye contact and incorrectly pronounces terms. Speaks too quietly
Total Points				

Developed by Kay Sagmller, Director Center for Teaching and Learning Oregon State University