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PHA5070 Pharmacotherapy for Pediatric and Geriatric Patients

Fall 2023
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 Leaders

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

Office Hours: Please see the Canvas course site for posted office hours

Kalen Manasco, Pharm.D., BCPS, BCPPS, FCCP, FPPA
- Email: kmanasco@cop.ufl.edu
- Office: HPNP 3310
- Phone: 352-294-8749

Office Hours: Please see the Canvas course site for posted office hours

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.

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

See Appendix. 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.

Required Textbooks/Readings

1. AccessPharmacy, McGraw-Hill Professional, New York, NY (This resource is available through the UF Health Science Center Library.)
   o 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.

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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. 20th ed. Washington, D.C.: American Pharmacists Association; 2021.
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.
[The Canvas© gradebook will be set-up using the percentages below to compute the grade.]

Table 1.1 Evaluation and Grading

Assessment Item	Grade Percentage
Midterm	30%
Final Exam	30%
In-Class Participation/Assignments	20%
Final Group Project	20%
Total	100%

Table 1.2 Grading Scale

Percentage	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-

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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/

Artificial Intelligence Use

The use of artificial intelligence (AI) text generators such as ChatGPT on assignments, projects, quizzes, and exams is prohibited in this course. Use of AI text generators is considered evidence of academic dishonesty. If a student is uncertain about the use of AI technology, it is the student's responsibility to ask the instructor prior to beginning the assignment or assessment.

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/

Attendance Policy

Attendance is mandatory for active learning sessions such as team-based learning sessions, case discussions, laboratory sessions, and other activities that the instructor designates as required. This course has 5 required ALS sessions. A student who misses greater than 1 session (25% of the required active learning sessions/activities) for this course will receive an incomplete in the course and will retake the course during the next offering, resulting in delayed graduation.

Makeup Assignments

Makeup assignments may be required for excused absences from all Active Learning Sessions. Students will be required to complete the makeup assignment within one week of the missed session.

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Late Assignment Policy

Late assignments will be accepted with a 20% reduction of grade for that assignment.

Accessibility and Belonging Statement

The University of Florida College of Pharmacy strives to stimulate a culture that promotes diversity and inclusion within an exceptional community of students, faculty, and staff. It is our intent that students from all diverse backgrounds and perspectives be well served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength, and benefit.

We intend to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture. Your suggestions are encouraged and appreciated. Please let us know ways to improve the course's effectiveness for you personally or for other students or student groups.

If any of our class meetings conflict with any of your religious events, an excused absence will be provided when requested using the standard UF COP process as detailed in the [UF COP Course policies](#).

If you feel that you have experienced or witnessed any bias/treatment that falls short of these expectations, you may submit a report through the UF [COP *Student Mistreatment Report*](#).

Course Evaluation Process

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. 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 https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

Appendix A. Course Directory

Teaching Partnership Leader/Course Director(s):

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

Office Hours: Please see the Canvas course site for posted office hours

Kalen Manasco, Pharm.D., BCPS, BCPPS, FCCP, FPPA
- Email: kmanasco@cop.ufl.edu
- Office: HPNP 3310
- Phone: 352-294-8749

Office Hours: Please see the Canvas course site for posted office hours

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

Instructional Designer:

Chris Egan, M.Ed., NRP
- Email: cegan@ufl.edu
- Phone: 352-294-5636

Academic Coordinator Gainesville Campus:

Ashleigh Langford
- Email: lynn8597@cop.ufl.edu
- Office: HPNP 4309
- Phone: 352-273-6284

Educational Coordinators:

Katie Orben
- Email: korben06@ufl.edu
- Office: Jacksonville Campus
- Phone: 904-244-9590

Jessica Linares
- Email: jnoriegalinares@ufl.edu
- Office: Orlando Campus
- Phone: 407-313-4087

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Questions to Ask:

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

Appendix B. Course Outline

Date / Time	Mod #	Activity	Activity Title	Contact Time (hr)	Responsible
11/29/23	1	Module	Module 1: Introduction to the Pediatric and Geriatric Patient Population		Kalen Manasco, Katherine L Vogel Anderson
11/29/23	1.1	Lecture Video	Introduction to the Pediatric Patient Population	0.82	Kalen Manasco
11/29/23	1.2	Lecture Video	Introduction to the Geriatric Patient Population	0.6	Katherine L Vogel Anderson
11/29/23	1.3	Reading	Managing Medications in Clinically Complex Elders	0.28	Katherine L Vogel Anderson
11/30/23 at 10:00am		Assignment (Graded)	Assignment: Submit one question about special populations or career opportunities to be discussed in class via Canvas discussion board prior to class		
11/30/23 at 2-3:50pm		Active Learning Session	Active Learning Session 1: Introduction to the Course	2	Kalen Manasco, Katherine L Vogel Anderson
11/30/23	2	Module	Module 2: Wellness Management		Kalen Manasco, Katherine L Vogel Anderson
11/30/23	2.1	Lecture Video	Developmental Pharmacokinetics	0.5	Kalen Manasco
11/30/23	2.2	Reading	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.	1.5	Kalen Manasco
11/30/23	2.3	Lecture Video	Geriatric Pharmacokinetics	0.5	Katherine L Vogel Anderson
11/30/23	2.4	Reading	Pharmacokinetics of Aging (Pharmacokinetics section of the chapter)	1.3	Katherine L Vogel Anderson
11/30/23	2.5	Lecture Video	Wellness Management in Pediatric Patient Population	0.8	Kalen Manasco
11/30/23	2.6	Lecture Video	Geriatric Wellness	0.7	Katherine L Vogel Anderson
11/30/23	2.7	Reading	Wellness Management in Geriatric Patient Population (Epidemiology of aging section of the chapter)	1	Katherine L Vogel Anderson
12/01/23 at 10-11:50am		Active Learning Session	Active Learning Session 2 : Wellness Management	2	Kalen Manasco, Katherine L Vogel Anderson
12/07/23 at 10am-12pm	1-2	Exam	Midterm	2	
12/07/23	3	Module	Module 3: Dosing and Administration Consideration for Pediatric and Geriatric Patients		Kalen Manasco, Katherine L Vogel Anderson

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Date / Time	Mod #	Activity	Activity Title	Contact Time (hr)	Responsible
12/07/23	3.1	Reading	Journal Article - Pharmacists work to make medications safer for pediatric patients. Pharmacy Today 2017; 4: 38-41. Access article at http://pharmacytoday.org/article/S1042-0991(17)30393-6/pdf.	0.5	Kalen Manasco
12/07/23	3.2	Reading	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.	1.5	Kalen Manasco
12/08/23 at 2-3:50pm		Active Learning Session	Active Learning Session 3 : Dosing and Administration Considerations for Pediatric and Geriatric Patients	2	Kalen Manasco, Katherine L Vogel Anderson
12/11/23	4	Module	Module 4: Communication with the Pediatric and Geriatric Patient		Kalen Manasco, Katherine L Vogel Anderson
12/11/23	4.1	Lecture Video	Communication with the Pediatric Patient	1	Kalen Manasco
12/11/23	4.2	Reading	Approach to the Pediatric Prescription in a Community Pharmacy	1.32	Kalen Manasco
12/11/23	4.3	Reading	Communicating With Children and Families: From Everyday Interactions to Skill in Conveying Distressing Information	2.82	Kalen Manasco
12/11/23	4.4	Lecture Video	Communication with the Geriatric Patients	0.6	Katherine L Vogel Anderson
12/11/23	4.5	Reading	Sounds of My Father - JAMA	0.1	Katherine L Vogel Anderson
12/11/23	4.6	Reading	If Only Grown-ups Would Pay Attention - JAMA	0.1	Katherine L Vogel Anderson
12/11/23 at 2-3:50pm		Active Learning Session	Active Learning Session 4: Communication with the Pediatric and Geriatric Patient	2	Kalen Manasco, Katherine L Vogel Anderson
12/12/23 at 11:59pm		Assignment (Graded)	Assignment: Group Project		
12/13/23 at 2-3:50pm		Active Learning Session	Active Learning Session 5: Group Project Discussion/Reflection	2	Kalen Manasco, Katherine L Vogel Anderson
12/15/23 at 1-3pm	1	Exam	Final Exam: Cumulative		
			Total Contact Time in Course:	27.94	

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Appendix C. 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