PHA5070 Pharmacotherapy for Pediatric and Geriatric Patients

Fall 2018

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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- Office: HPNP 3313
- Phone: 352-273-6240
- Office Hours: By appointment ONLY.

Kalen Manasco, Pharm.D., BCPS, FPPAG
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- Office: HPNP 3310
- Phone: 352-294-8749
- Office Hours: By appointment ONLY.

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.

3. **EPA A5.** Provide counseling and medications and health wellness (including referral when there are social determinants of health and disparities).

4. **EPA A6.** Assess and counsel a patient about health-wellness.

5. **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

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.

<table>
<thead>
<tr>
<th>Date Recommend</th>
<th>Mod</th>
<th>Unit Topic</th>
<th>Contact Hours [hr.]</th>
<th>Faculty Author</th>
<th>Learning Objective Covered</th>
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<tbody>
<tr>
<td>12/4/18</td>
<td>1.1</td>
<td>Watch: Introduction to the Pediatric Patient Population</td>
<td>1.0hr</td>
<td>Manasco, Vogel Anderson</td>
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<td>12/4/18</td>
<td>1.2</td>
<td>Watch: Introduction to the Geriatric Patient Population</td>
<td>1.0hr</td>
<td>Manasco, Vogel Anderson</td>
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<tr>
<td>Date</td>
<td>Activity</td>
<td>Duration</td>
<td>Notes</td>
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<tr>
<td>12/4/18</td>
<td><strong>Due: 12/4/17 11:59pm</strong> Read: Geriatric Patient Population Article</td>
<td>1.0hr</td>
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<tr>
<td>12/4/18</td>
<td>Assignment: Submit one question about special populations or career</td>
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<td>opportunities to be discussed in class via Canvas discussion board prior</td>
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<td>to class</td>
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<td>12/5/18</td>
<td>10:15-12:05pm 1 Active Learning Session 1: Introduction to the Course</td>
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<td>12/6/18</td>
<td>2.1 Watch: Developmental Pharmacokinetics</td>
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<td>12/6/18</td>
<td>2.2 Watch: Pharmacokinetics of Aging</td>
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<td>12/6/18</td>
<td>2.3 Watch: Wellness Management in Pediatric Patient Population</td>
<td>1.0hr</td>
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<td></td>
<td>Read: Journal Article - Lu H, Rosenbaum S. Developmental pharmacokinetics</td>
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<tr>
<td></td>
<td>Read: Pharmacokinetics of Aging</td>
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<td></td>
<td>2.4 Watch: Wellness Management in Geriatric Patient Population</td>
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<td></td>
<td>Read: Wellness Management in Geriatric Patient Population</td>
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<td>12/10/18</td>
<td>10:15-12:05pm 2 Active Learning Session 2: Wellness Management</td>
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<td>12/11/18</td>
<td>10:15-12:05pm 1-2 Exam 1</td>
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<td>12/11/18</td>
<td>10:15-12:05pm 3 Module 3: Dosing and Administration Consideration for</td>
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<td>Manasco, Vogel Anderson</td>
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<td></td>
<td>Pediatric and Geriatric Patients</td>
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</table>

**Module 2: Wellness Management**

**Module 3: Dosing and Administration Consideration for Pediatric and Geriatric Patients**
<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
<th>Duration</th>
<th>Notes</th>
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<tbody>
<tr>
<td>12/11/18</td>
<td>Assignment: Dosing Calculations</td>
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<tr>
<td>12/12/18</td>
<td>Active Learning Session 3: Dosing and Administration Considerations for Pediatric and Geriatric Patients</td>
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<td>Manasco, Vogel Anderson</td>
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<td>12/14/18</td>
<td>Active Learning Session 4: Communication with the Pediatric and Geriatric Patient</td>
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<td>Manasco, Vogel Anderson</td>
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1. **Module 4**: Communication with the Pediatric and Geriatric Patient

   - **4.1** Watch: Communication with the Pediatric Patient
   - Read: Communication with the Pediatric Patient Article
   - Read: Communication with the Pediatric Patient Article

   - **4.2** Watch: Communication with the Geriatric Patient
   - Read: Communication with the Geriatric Patient Article
   - Read: Communication with the Geriatric Patient Article
### Required Textbooks/Readings

1. **AccessPharmacy**, McGraw-Hill Professional, New York, NY (This resource is available through the UF Health Science Center Library.)
   - Use [UF VPN to access UF Libraries Resources](http://www.library.health.ufl.edu/) 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](http://www.library.health.ufl.edu/) at this URL: [http://www.library.health.ufl.edu/](http://www.library.health.ufl.edu/)

### Suggested Textbooks/Readings


### Other Required Learning Resources

None
Materials & Supplies Fees

None

Student Evaluation & Grading

Evaluation Methods and How Grades are calculated.

<table>
<thead>
<tr>
<th>Assessment Item</th>
<th>Grade Percentage</th>
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<tbody>
<tr>
<td>Midterm</td>
<td>30%</td>
</tr>
<tr>
<td>Final exam</td>
<td>30%</td>
</tr>
<tr>
<td>In-Class Participation/Assignments</td>
<td>20%</td>
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<tr>
<td>Final group presentation</td>
<td>20%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
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</table>

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.”

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:

Tim Stevens
Email: tstevens1@cop.ufl.edu
Office: HPNP 4312
Phone: 352-294-8677
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)
- 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

<table>
<thead>
<tr>
<th></th>
<th>Exemplary 10</th>
<th>Accomplished 7</th>
<th>Developing 5</th>
<th>Beginning 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organization</strong></td>
<td>Information presented in logical, interesting sequence, is accurate and very comprehensive</td>
<td>Information in logical sequence, is accurate and comprehensive</td>
<td>Difficult to follow presentation--student jumps around or material; is either not accurate or not comprehensive</td>
<td>Cannot understand presentation; content is not accurate and not comprehensive</td>
</tr>
<tr>
<td><strong>Subject Knowledge</strong></td>
<td>Demonstrates full knowledge by answering all class questions with explanations and elaborations</td>
<td>At ease with expected answers to questions but does not elaborate</td>
<td>Uncomfortable with information and is able to answer only rudimentary questions</td>
<td>Does not have a grasp of the information. Cannot answer questions about subject</td>
</tr>
<tr>
<td><strong>Graphics</strong></td>
<td>Explain and reinforce screen text and presentation, information is in sufficient detail but not overwhelming</td>
<td>Relate to text and presentation, lacks sufficient detail or overwhelming amount of detail</td>
<td>Occasionally uses graphics that rarely support text and presentation</td>
<td>Uses superfluous graphics or no graphics</td>
</tr>
<tr>
<td><strong>Research</strong></td>
<td>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.</td>
<td>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)</td>
<td>Presents only evidence that supports a preconceived point of view (uses 1 or 2 sources or citations are incomplete)</td>
<td>Does not justify conclusions with research evidence (no sources cited)</td>
</tr>
<tr>
<td><strong>Oral Presentation</strong></td>
<td>Maintains eye contact and pronounces all terms precisely. All audience members can hear.</td>
<td>Maintains eye contact most of the time and pronounces most words correctly. Most audience members can hear presentation</td>
<td>Occasionally uses eye contact, mostly reading presentation, and incorrectly pronounces terms. Audience members have difficulty hearing</td>
<td>Reads with no eye contact and incorrectly pronounces terms. Speaks too quietly</td>
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<tr>
<td><strong>Elocution/Eye Contact</strong></td>
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</tbody>
</table>

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