

# PHA5609 Pediatric Pharmacotherapy

Spring 2021

*2 Credit Hours – [A-E Grading]*

This elective course will provide students with an understanding of the health care needs of the pediatric patient. In addition, the students will develop the knowledge and skills to provide pharmaceutical care to pediatric patients in both ambulatory and inpatient settings. The course will focus on developmental stages of growth, common pediatric disease states, and specific pharmacotherapeutic considerations unique to pediatric patients. The course will be taught through a combination of lectures and active learning sessions.

## Teaching Partnership Leader

Kalen Manasco, Pharm.D., BCPS, BCPPS, FCCP, FPPA

- Email: [kmanasco@cop.ufl.edu](mailto:kmanasco@cop.ufl.edu)
- Office: HPNP 3310
- Phone: 352-294-8749
- Office Hours: Please see the Canvas course site for posted office hours.

Renad Abu-Sawwa, Pharm.D., BCPPS

- Email: [rabusawwa@cop.ufl.edu](mailto:rabusawwa@cop.ufl.edu)  
Office: HPNP 2314A  
Phone: 352-294-8779

## 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 A3.** Formulate evidence-based care plans in collaboration with an interprofessional team. Utilize clinical guidelines in the development of a pharmacotherapy plan.
4. **EPA A5.** Provide counseling and medications and health wellness (including referral when there are social determinants of health and disparities).
5. **EPA A6.** Assess and counsel a patient about health-wellness
6. **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.
7. **EPA A9.** Collaborate as a member of an interprofessional team and provide patient-centered care.

## Course-Level Objectives

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

1. Explain the challenges of providing pharmaceutical care to pediatric patients.
2. Identify and utilize appropriate drug information resources to help make decisions about the management of common pediatric disease states.
3. Recommend appropriate therapy and monitoring of common pediatric disease states (to include appropriate patient counseling techniques about medications) through participation in patient case discussions.
4. Calculate pediatric dosages of medications and provide information on the availability of dosage forms (i.e., manufactured product, extemporaneous formulation).
5. Identify controversial topics relating to the pharmaceutical care of pediatric patients for group discussions.

## Course Pre-requisites

1. Completion of all Year 1 and 2 Pharm.D. program coursework including milestones.
2. Satisfactory completion of Blocks 8.

## Course Co-requisites

## 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.

<i>Recommended</i>			<i>Learning Objectives Covered</i>	<i>Faculty Author</i>	<i>Contact Hours [hr.]a</i>
<i>Viewing Days</i>	<i>Mod#</i>	<i>Unit Topic</i>			
<b>Week 1</b>	1	<b>Module 1: Introduction to Pediatrics</b>			
<b>Manasco</b>					<b>3.5</b>
<i>Thursday 4/22</i>		Introduction to Pediatrics - 30 minute recorded lecture	1,2,4	Manasco	0.5
<i>Thursday 4/22</i>		Careers in Pediatric Pharmacy - 30 minute recorded lecture	1,2	Manasco	0.5

<i>Thursday 4/22</i>		Module 1 Quiz			
<i>Thursday 4/22</i> 2:00-4:00		In-class Active Learning Session 1		Manasco	1.0
<i>Thursday 4/22</i>		Group Project			1.5
<i>Week 1</i>	2	<b>Module 2: Principles in Pediatric Pharmacy</b>		<b>Abu-Sawwa</b>	<b>3.5</b>
<i>Monday 4/26</i>		Fluids/Electrolytes/Nutrition - 1 hour recorded lecture	3,4	Manasco	1.0
<i>Monday 4/26</i>		Pediatric Considerations in Research-reading	1,2	Abu-Sawwa	0.5

<i>Monday 4/26</i>		Module 2 Quiz			
<i>Monday 4/26</i> 2:00-4:00		In-class Active Learning Session 2		Abu-Sawwa	1.0
<i>Monday 4/26</i>		Group Project			1.0
<i>Week 1</i>	3	<b>Module 3: Special Populations</b>		<b>Manasco</b>	<b>4.5</b>
<i>Wednesday 4/28</i>		Cystic Fibrosis - 1 hour recorded lecture	3	Manasco	1.0
<i>Wednesday 4/28</i>		NICU Basics and Controversies - 1 hour recorded lecture	3	Vazquez-Perez	0.5

<i>Wednesday 4/28</i>		Module 3 Quiz			
<i>Wednesday 4/28</i> 2:00 -4:00		Active Learning Session 3		Manasco	2.0

<i>Wednesday</i> <i>4/28</i>		Group Project			1.0
<i>Week 2</i>	4	<b>Module 4: Pediatric Ambulatory Care</b>		<b>Abu-Sawwa</b>	<b>6.0</b>
		Pediatric Psychiatry	3		
<i>Friday, 4/30</i>		-1 hour recorded lecture		Abu-Sawwa	1.0
<i>Friday, 4/30</i>		Diabetes in Pediatrics - 1 hour recorded lecture	3	George	1.0
<i>Friday, 4/30</i>		Pediatric Oncology Principles - 1 hour recorded lecture	3	Higgins	1.0
<i>Friday, 4/30</i>		Module 4 Quiz			
<i>Friday, 4/30</i> <i>2:00 – 4:00</i>		Active Learning Session 4		Abu-Sawwa	2.0
<i>Friday, 4/30</i>		Group Project			1.0
<i>Week 3</i>	5	<b>Module 5: Pediatric Acute Care</b>		<b>Abu-Sawwa</b>	<b>5.0</b>
<i>Monday, 5/3</i>		Renal Disorders -0.5 hour recorded lecture	3	Lyons	0.5
<i>Monday, 5/3</i>		PICU Basics and Controversies -1 hour recorded lecture	3	Abu-Sawwa	1.0
<i>Monday, 5/3</i>		Toxicology - 1 hour recorded lecture	3	Abu-Sawwa	1.0
<i>Monday, 5/3</i>		Module 5 Quiz			

<i>Monday, 5/3</i> <i>2:00 -4:00</i>		Active Learning Session 5		Abu-Sawwa	2.0
<i>Week 3</i>	6	<b>Module 6: Group Presentations</b>		Manasco/ Abu-Sawwa	<b>2.0</b>
<i>Tuesday, 5/4</i> <i>2:00-4:00</i>		Group Project Presentations			2.0
<i>Thursday May 6</i> <i>11:00- 1:00</i>	1 – 5	Final Exam			<b>2.0</b>

## Required Textbooks/Readings

Dipiro J, Talbert R, Yee G, Matzke G, Wells B, Posey L. Pharmacotherapy – A pathophysiologic approach. McGraw-Hill Professional, New York, NY, 9th Edition, 2014. ISBN-13:978-0071800532; ISBN-10:0071800530 (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

Benavides S, Nahata MC, eds. Pediatric Pharmacotherapy. 2nd edition. Lenexa, Kansas: American College of Clinical Pharmacy; 2020. ISBN: 978-1-952291-04-3. Available for purchase online:

<https://www.accp.com/store/product.aspx?pc=PEDPC20G>

Kliegman R, Stanton B, St. Geme J, Schor N. Nelson Textbook of Pediatrics. Elsevier Health Sciences, Philadelphia, PA, 20<sup>th</sup> edition, 2015. ISBN-13: 978-1455775668. Available via HSC library website at this URL:

<http://www.library.health.ufl.edu/>

## Other Required Learning Resources

None

## Materials & Supplies Fees

UF Fee that is in addition to tuition: None

## Group Presentation

Students will be placed into groups on the first day of class and be required to make a brief presentation at the end of the semester on a unique pediatric disease state. The presentation should be in both oral and written format for assessment. You should include background on the disease state and also evidence-based information about the treatment (review of clinical practice guidelines, clinical trials, etc.). The following rubric will be used to assess the presentation skills of the members of the group. Each member of the group will be expected to contribute to both the written and oral presentation.

	<b>Exemplary 10</b>	<b>Accomplished 7</b>	<b>Developing 5</b>	<b>Beginning 3</b>
<b>Organization</b>	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
<b>Subject Knowledge</b>	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
<b>Graphics</b>	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
<b>Research</b>	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	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 1 or 2 sources or citations are incomplete)	Does not justify conclusions with research evidence (no sources cited)
	using an approved format.			

<b>Oral Presentation Elocution/Eye Contact</b>	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
<b>Total Points</b>				

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

## Student Evaluation & Grading

Evaluation Methods and How Grades are calculated

Assessment Item	Grade Percentage
Post lecture/pre-class quizzes (n = 5)	25%
Group presentation	35%
Final Exam	20%
Active Learning Sessions/Group Discussion	20%
<b>Total</b>	<b>100%</b>

Table 1. Grading Scale

**Rounding of grades:**

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

EXCEPTIONS  
"close."

- 1.
- 2.

[Contact Information](#)

3/1/2021

Final grades in Canvas will be rounded to the 2<sup>nd</sup> 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 will be made in situations where a student's grade is

### Educational Technology Use

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

- ExamSoft™ Testing Platform
- Canvas™ Learning Management System

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

### Pharm.D. Course Policies

The [Pharm.D. Course Policies](#) in the following link apply to this course:  
<http://curriculum.pharmacy.ufl.edu/current-students/course-policies/> Please review these policies carefully before the course starts.



# Appendix A. Course Directory

## Teaching Partnership Leader/Course Director:

Kalen Manasco, PharmD

Email: [kmanasco@cop.ufl.edu](mailto:kmanasco@cop.ufl.edu)

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

Questions to Ask:

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

## Instructional Designer:

## Instructional Designer:

Name: Kimberly Heal

Email: [kheal@cop.ufl.edu](mailto:kheal@cop.ufl.edu)

Office: HPNP 4309

## Academic Coordinator:

Name: Misti. Merrill

Email: [absent2pd@cop.ufl.edu](mailto:absent2pd@cop.ufl.edu) or [absent3pd@cop.ufl.edu](mailto:absent3pd@cop.ufl.edu)

Office: HPNP 4312

Phone: 352-273-5617

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

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.)

## Educational Coordinators

Name: McKenzie Wallen

Email: [mwallen@cop.ufl.edu](mailto:mwallen@cop.ufl.edu) Office:

Jacksonville Campus

Name: Iverta Allen

Email: [iallen1@cop.ufl.edu](mailto:iallen1@cop.ufl.edu) Office:

Orlando Campus

## Other Teaching Partnership Faculty Members:

Abu-Sawwa, Renad

Email: [rabusawwa@cop.ufl.edu](mailto:rabusawwa@cop.ufl.edu)

Office: HPNP 2314A

Phone: (352) 294-8779

George, Alex

Email: [ageo0002@shands.ufl.edu](mailto:ageo0002@shands.ufl.edu)

Higgins, Tara

Email: [mccabt@shands.ufl.edu](mailto:mccabt@shands.ufl.edu)

Lyons, Shannon

Email: [slyo2177@shands.ufl.edu](mailto:slyo2177@shands.ufl.edu)

Vazquez-Perez, Jennifer

Email: [perej@shands.ufl.edu](mailto:perej@shands.ufl.edu)