

**University of Florida**  
**College of Public Health & Health Professions Syllabus**  
**Department of Occupational Therapy**  
**OTH 6419 Pathophysiology (3 credit hours)**  
**Fall 2018**  
Delivery Format: On-Campus and Blended  
**Lecture in HSC rooms C1-4 and C1-7 / E-learning on CANVAS**

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**Instructor Name:**

Orit Shechtman, Ph.D., OTR/L  
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Office Hours: Tuesdays 3:30 – 5:00 PM, or by appointment

**Preferred Course Communications:** email

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**Prerequisites:** anatomy and physiology

**Lecture:** Monday 1:55 – 3:50 (HSC room C1-4) and Wednesday 3:00 – 3:50 (HSC room C1-7)

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**PURPOSE AND OUTCOME****Course Overview:**

The purpose of this course is to provide the student with basic understanding of pathophysiology as a change from normal physiological functioning of the various systems of the human body. The course is based on illness and disease within a systems framework. Emphasis is put on select conditions most often encountered by occupational therapists. The course focuses on critical thinking used to analyze the signs and symptoms based on understanding the pathophysiological mechanisms and integration of knowledge.

**Relation to Program Outcomes:**

This course is one of the basic science courses taught in the first year of the OTD program. The knowledge gained in this course is necessary for subsequent courses addressing clinical assessment and treatment across the lifespan.

**Course Objectives and/or Goals**

This course partially meets one of the Education Standards for the American Council for the Accreditation of OT Education (ACOTE). The student will:

B.1.4 Demonstrate knowledge and understanding of the structure and function of the human body to include the biological and physical sciences. Course content must include, but is not limited to, biology, anatomy, physiology, neuroscience, and kinesiology or biomechanics.

More specifically, based on study materials, readings, lectures, and handouts the student will:

1. Apply physiological principles to understanding pathophysiological processes within the systems of the human body.
2. Examine the mechanisms of physiological alterations in the various systems of the body and the processes leading to pathophysiological dysfunction.
3. Distinguish between physiological functioning and pathophysiological processes in the various systems of the human body.
4. Analyze the relationships between the signs and symptoms and the pathophysiological processes of selected illnesses and diseases in adults.
5. Apply critical thinking to analyze the presentation of signs and symptoms based on the underlying pathophysiological processes.

## Instructional Methods

Lecture, audiovisual materials, course texts, and notes posted on E-learning. Some material is delivered in a blended learning format.

## Blended Learning

*What is blended learning and why is it important?*

A Blended Learning class uses a mixture of technology and face-to-face instruction to help you maximize your learning. Knowledge content that, as the instructor, I would have traditionally presented during a live class lecture is instead provided online before the live class takes place. This lets me focus my face-to-face teaching on course activities designed to help you strengthen higher order thinking skills such as critical thinking, problem solving, and collaboration. Competency in these skills is critical for today's health professional.

*What is expected of you?*

You are expected to actively engage in the course throughout the semester. You must come to class prepared by completing all out-of-class assignments. This preparation gives you the knowledge or practice needed to engage in higher levels of learning during the live class sessions. If you are not prepared for the face-to-face sessions, you may struggle to keep pace with the activities occurring in the live sessions, and it is unlikely that you will reach the higher learning goals of the course. Similarly, you are expected to actively participate in the live class. Your participation fosters a rich course experience for you and your peers that facilitates overall mastery of the course objectives.

## DESCRIPTION OF COURSE CONTENT

**Topical Outline/Course Schedule:** see detailed schedule information at the end of this document!

Week	Date(s)	Topic(s)
1	8/22	Cellular Biology: cytoplasm and organelles
2	8/27-8/29	Cellular Biology: nucleus, genes and genetic disease
3	9/3-9/5	<b>Labor Day</b> ; Cellular biology: cell membrane; Cellular functions
4	9/10-9/12	Altered biology: cellular adaptation, cellular injury, and aging
5	9/17-9/19	Fluids and electrolytes, Acids and Bases
6	9/24-9/26	Cardiovascular system function
7	10/1-10/3	Cardiovascular system: dysfunction of blood vessels
8	10/8-10/10	Cardiovascular system: dysfunctions of the heart; <b>EXAM 1</b>
9	10/15-10/17	Endocrine System: hormonal regulation and alteration
10	10/22-10/24	Endocrine System: diabetes
11	10/29-10/31	Pulmonary System; <b>EXAM 2</b>
12	11/5-11/7	Immunity: mechanism, types: humeral and cell mediated
13	11/12-11/14	<b>Veteran's Day</b> ; Immunity: inflammation, regeneration
14	11/19-11/21	Immunity: hypersensitivity, infection, immunodeficiency; <b>Thanksgiving</b>
15	11/26-11/28	Cancer: biology and types
16	12/3-12/5	Cancer: metastasis and treatment
17	12/11	<b>EXAM 3</b>

## Course Materials and Technology

### A. Required:

1. Class notes will be posted weekly on-line (E-learning at <https://lss.at.ufl.edu/>).
2. Huether, S.E., & McCane, K.L. Understanding pathophysiology (Latest Edition). St. Louis: C.V. Mosby. Newest Edition.
3. TopHat classroom response system will be used in class. You must have access to it. Direct URL: <http://app.tophat.com/e/146229>; The 6-digit course code is: 146229.

For technical support for this class, please contact the UF Help Desk at:

- [Learning-support@ufl.edu](mailto:Learning-support@ufl.edu)
- (352) 392-HELP - select option 2
- <https://lss.at.ufl.edu/help.shtml>

## ACADEMIC REQUIREMENTS AND GRADING

### Assignments

The grade is based on: 1) exams and quizzes, which are composed of objective questions (multiple choice and matching questions) only, and 2) a written assignment to be explained in class.

- Exams: there are 3 exams, 60 questions (120 points) each.
- Quizzes: there are multiple online quizzes for a total of 120 points.

### Grading

Test	Number of questions	Points per question	Points per test	Percent grade
Exam 1	60	2	120	20%
Exam 2	60	2	120	20%
Exam 3	60	2	120	20%
Quizzes (online)	Variable	Variable	120	20%
Written assignment (TBA)			100	17%
Professional Behavior*			20	3%
<b>Total</b>			<b>600</b>	<b>100 %</b>

\*Professional points are based on class attendance. Missing lecture without prior arrangements will result in subtracting 2 points per missed attendance check.

Point system used (i.e., how do course points translate into letter grades).

<b>Points earned</b>	930-1000	900-929	870-899	830-869	800-869	770-799	700-769	670-699	630-669	600-629	0-599
<b>Letter Grade</b>	A	A-	B+	B	B-	C+	C	D+	D	D-	E

According to the College policy, a grade of "C" (700 points or more) is necessary to pass the course for students who take this as a required course or College elective!

Letter grade to grade point conversions are fixed by UF and cannot be changed.

<b>Letter Grade</b>	A	A-	B+	B	B-	C+	C	D+	D	D-	E	WF	I	NG	S-U
<b>Grade Points</b>	4.0	3.67	3.33	3.0	2.67	2.33	2.0	1.33	1.0	0.67	0.0	0.0	0.0	0.0	0.0

For greater detail on the meaning of letter grades and university policies related to them, see the Registrar's Grade Policy regulations at: <http://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

### Exam Policy

Lecture exams and disorders lab exam will be administered in the Computer Testing Center in the Communicore Building room CG-27/28. Brain Lab exam will be administered in the lab (Communicore Building room CG-22). You must arrive on time for all exams.

### Policy Related to Make up Exams or Other Work

Makeup exams will not be given without prior arrangements with the Course Instructor. "Prior" means at least one day in advance. Failure to do this will result in a zero grade for that test or assignment. Emergencies have to be documented (such as a medical exemption). Undocumented absence from an exam or an assignment will result in a score of "0" on that assignment. Makeup exams that are given due to authorized absence may be oral exams.

### Policy Related to Required Class Attendance

- Students are expected to attend lecture. A sign-up sheet will be passed around on randomly selected dates. Missing lecture will result in subtracting 2 points per lecture.
- Students must attend lab! Attendance will be taken in each and every lab. Missing a lab will result in subtracting 5 points per missed lab. In addition, the student will lose lab quiz points.
- Missing class or lab without prior arrangements (for definition of "prior" see above) will result in point subtraction as mentioned above. Personal issues regarding attendance or fulfillment of course requirements will be handled on an individual basis.
- All faculty members are bound by the UF policy for excused absences. For information regarding the UF Attendance Policy see the Registrar website for additional details: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

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## STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT

### Expectations Regarding Course Behavior

1. **Preparation for class:** To maximize the use of class time, you are expected to:
  - Look at E-learning for announcements and get the notes prior to each class.
  - Read and study assigned readings prior to class.
2. **Class behavior:** You are also expected to:
  - Be on time for class
  - Stay until class is dismissed
  - Silence your cellular phone
  - Be courteous by refraining from chatter and other distracting behaviors
  - Do not look at external material during class (newspaper, Facebook, twitter, etc.)
  - Arrange with the instructor in advance if you cannot attend class so you can get pertinent handouts and announcements

### Communication Guidelines

Please email the instructors and TAs directly (email addresses are above) rather than using the E-learning. For digital communication expectations see: *Netiquette Guidelines*: <http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf>

### **Academic Integrity**

Students are expected to act in accordance with the University of Florida policy on academic integrity. As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge:

**“We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.”**

You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied:

**“On my honor, I have neither given nor received unauthorized aid in doing this assignment.”**

It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For additional information regarding Academic Integrity, please see Student Conduct and Honor Code or the Graduate Student Website for additional details:

<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>  
<http://gradschool.ufl.edu/students/introduction.html>

Please remember cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior.

### **Online Faculty 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/>.

### **Inclusive Learning Environment**

Public health and health professions are based on the belief in human dignity and on respect for the individual. As we share our personal beliefs inside or outside of the classroom, it is always with the understanding that we value and respect diversity of background, experience, and opinion, where every individual feels valued. We believe in, and promote, openness and tolerance of differences in ethnicity and culture, and we respect differing personal, spiritual, religious and political values. We further believe that celebrating such diversity enriches the quality of the educational experiences we provide our students and enhances our own personal and professional relationships. We embrace The University of Florida's Non-Discrimination Policy, which reads, “The University shall actively promote equal opportunity policies and practices conforming to laws against discrimination. The University is committed to non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, gender identity and expression, marital status, national origin, political opinions or affiliations, genetic information and veteran status as protected under the Vietnam Era Veterans' Readjustment Assistance Act.” If you have questions or concerns about your rights and responsibilities for inclusive learning environment, please see your instructor or refer to the Office of Multicultural & Diversity Affairs website: [www.multicultural.ufl.edu](http://www.multicultural.ufl.edu)

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## SUPPORT SERVICES

### Accommodations for Students with Disabilities

If you require classroom accommodation because of a disability, it is strongly recommended you register with the [Disability Resource Center](#) within the first week of class or as soon as you believe you might be eligible for accommodations. The Disability Resource Center will provide documentation of accommodations to you, which you must then give to me as the instructor of the course to receive accommodations. Please do this as soon as possible after you receive the letter. Students with disabilities should follow this procedure as early as possible in the semester. The College is committed to providing reasonable accommodations to assist students in their coursework.

### Counseling and Student Health

Students sometimes experience stress from academic expectations and/or personal and interpersonal issues that may interfere with their academic performance. If you find yourself facing issues that have the potential to or are already negatively affecting your coursework, you are encouraged to talk with an instructor and/or seek help through University resources available to you.

- The Counseling and Wellness Center 352-392-1575 offers a variety of support services such as psychological assessment and intervention and assistance for math and test anxiety. Visit their web site for more information: <http://www.counseling.ufl.edu>. On line and in person assistance is available.
- You Matter We Care website: <http://www.umatter.ufl.edu/>. If you are feeling overwhelmed or stressed, you can reach out for help through the You Matter We Care website, which is staffed by Dean of Students and Counseling Center personnel.
- The Student Health Care Center at Shands is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at Shands offers a variety of clinical services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at 392-0627 or check out the web site at: <https://shcc.ufl.edu/>
- Crisis intervention is always available 24/7 from:  
Alachua County Crisis Center  
(352) 264-6789  
<http://www.alachuacounty.us/DEPTS/CSS/CRISISCENTER/Pages/CrisisCenter.aspx>

Do not wait until you reach a crisis to come in and talk with us. We have helped many students through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for assistance.

### U Matter, We Care

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu) so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

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[The detailed class schedule is on the next page](#)

## DETAILED CLASS SCHEDULE

**\*Note: this is a tentative schedule; content may be subject to change!**

**\*\*\* NOTE: this is a tentative schedule**

WEEK	TOPIC	READINGS
Week 1 8/22	Introduction to the course	Ch 1
	Cellular Biology: cytoplasm and organelles	
Week 2 8/27-8/29	Cellular Biology: Nucleus, Genes and genetic disease	Ch 2
Week 3 9/3 9/5	Labor Day	Ch 1-2
	Cellular Biology <ul style="list-style-type: none"> <li>Cellular biology: cell membrane</li> <li>Cellular functions</li> </ul>	
Week 4 9/10-9/12	Altered Cellular and Tissue Biology	Ch 4
	<ul style="list-style-type: none"> <li>Cellular adaptations</li> <li>Cellular injury</li> <li>Aging</li> </ul>	
Week 5 9/17 – 9/19	Fluids and Electrolytes Acids and bases	Ch 5
Week 6 9/24-9/25	The Cardiovascular (CV) System: Normal CV Structure and Function	Ch 23
Week 7 10/1-10/3	The Cardiovascular System: Dysfunction of blood vessels	Ch 24
Week 8 10/8 10/10	The Cardiovascular System Alterations of Cardiovascular Function: <ul style="list-style-type: none"> <li>Disease of the heart muscle</li> <li>Heart Rhythm, cardiomyopathies</li> <li>Heart failure, Shock</li> </ul>	Ch 24
	EXAM 1: CG-28	
Week 9 10/15-10/17	The Endocrine System: Mechanism of hormonal regulation and alteration	Ch 18, 19
Week 10 10/22-10/25	The Endocrine System: Alteration of hormonal regulation - Diabetes	Ch 19
Week 11	The Pulmonary System: Function and Dysfunction	Ch 26, 27

WEEK	TOPIC	READINGS
10/29 <b>10/31</b>	<b>EXAM 2</b>	
<b>Week 12</b> 11/5-11/7	<b>The Immune System</b>	
	Immunity: <ul style="list-style-type: none"> <li>• Characteristics of the Immune Response</li> <li>• Induction of the Immune Response</li> <li>• Humoral Immune Response</li> <li>• Cell-mediated Immune Response</li> </ul>	Ch 7
<b>Week 13</b> 11/12	<b>Veteran's Day</b>	Ch 6
11/14	<b>The Immune System</b>	
	<ul style="list-style-type: none"> <li>• Inflammation</li> <li>• Regeneration and Repair</li> </ul>	Ch 8
<b>Week 14</b> 11/19	<b>Immune Alterations: Hypersensitivities, Infection, Immunodeficiencies</b>	Ch 8
<b>11/20</b>	<b>Thanksgiving</b>	
<b>Week 15</b> 11/26 -11/28	<b>Cancer</b> <ul style="list-style-type: none"> <li>• Biology of Cancer</li> <li>• Types of Cancer</li> </ul>	Ch 10-11
<b>Week 16</b> 12/3-12/5	<b>Cancer</b> <ul style="list-style-type: none"> <li>• Metastasis – Tumor Spread</li> <li>• Treatment</li> </ul>	Ch 10-11
<b>Week 17</b> <b>TUESDAY 12/11</b>	<b>FINAL EXAM (3)</b>	

\*\*\* NOTE: this is a tentative schedule