

# Cover Sheet: Request 11261

## OTH 6008 Neuroscience of Human Occupation

### Info

Process	Course Modify Ugrad/Pro
Status	Pending
Submitter	Foss, Joanne J jfoss@phhp.ufl.edu
Created	11/7/2016 4:12:28 PM
Updated	12/8/2016 9:15:13 AM
Description of request	Theoretical explanations of human functioning through neuroscience. Contemporary concepts of brain function that support occupation with emphasis on sensory, motor, and cognitive processes.

### Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	PHHP - Occupational Therapy 313303000	Pugh, Emily Strayer		11/15/2016
Deleted OTH 6008 Neuroscience.docx					11/7/2016
College	Approved	PHHP - College of Public Health and Health Professions	HANSON, STEPHANIE L.		11/15/2016
No document changes					
University Curriculum Committee	Comment	PV - University Curriculum Committee (UCC)	Case, Brandon	Added to the December agenda.	11/22/2016
No document changes					
University Curriculum Committee	Pending	PV - University Curriculum Committee (UCC)			11/22/2016
No document changes					
Statewide Course Numbering System					
No document changes					
Office of the Registrar					
No document changes					
Student Academic Support System					
No document changes					
Catalog					
No document changes					
College Notified					
No document changes					

# Course|Modify for request 11261

## Info

**Request:** OTH 6008 Neuroscience of Human Occupation

**Description of request:** Theoretical explanations of human functioning through neuroscience. Contemporary concepts of brain function that support occupation with emphasis on sensory, motor, and cognitive processes.

**Submitter:** Foss, Joanne J jfoss@phhp.ufl.edu

**Created:** 12/8/2016 9:12:06 AM

**Form version:** 2

## Responses

**Current Prefix**OTH

**Course Level**6

**Number** 008

**Lab Code** None

**Course Title** Neuroscience of Human Occupation

**Effective Term** Fall

**Effective Year** 2018

**Requested Action** Other (selecting this option opens additional form fields below)

**Change Course Prefix?**No

**Change Course Level?**No

**Change Course Number?**No

**Change Lab Code?**Yes

**Current Lab Code**None

**Proposed Lab Code**C

**Change Course Title?**Yes

**Current Course Title**Neuroscience of Human Occupation

**Proposed Course Title**Neuroscience in Occupational Therapy

**Change Transcript Title?**No

**Change Credit Hours?**Yes

**Current Credit Hours**6

**Proposed Credit Hours**5

**Change Variable Credit?**No

**Change S/U Only?**No

**Change Contact Type?**No

**Change Rotating Topic Designation?**No

**Change Repeatable Credit?**No

**Change Course Description?**Yes

**Current Course Description**In this course, occupational science and related theories of occupation are addressed. Contemporary concepts and findings regarding human brain function that support human occupation are emphasized including sensory, motor and cognitive processes.

**Proposed Course Description (50 words max)**Theoretical explanations of occupation human functioning through neuroscience. Contemporary concepts of brain function that support occupation with an emphasis in sensory, motor and cognitive processes.

**Change Prerequisites?**Yes

**Current Prerequisites**None

**Proposed Prerequisites**Anatomy with Lab (B) and Physiology with Lab (B)  
Enrollment in the OTD program

**Change Co-requisites?**No

**Rationale**This content of this course is being changed to offer in a new OTD program. The course was last offered in 2009 and must be updated.

**University of Florida**  
**College of Public Health & Health Professions Syllabus**  
**OTH 6008 Neuroscience of Human Occupation (5 credit hours)**  
**Fall 2019**

Delivery Format: On-Campus and Blended  
**Lecture in HPNP G-101; Lab in CG-22 / E-learning on CANVAS**

**Instructor Name:**

Orit Shechtman, Ph.D., OTR/L  
 Office: HPNP room 2115  
 Phone Number: 273-6021  
 Email Address: [oshechtm@phhp.ufl.edu](mailto:oshechtm@phhp.ufl.edu)  
 Office Hours: Tuesdays 3:30 – 5:00 PM, or by appointment

**Teaching Assistants:**

1. Emily Isom: [em1218@phhp.ufl.edu](mailto:em1218@phhp.ufl.edu)
2. Lauren Hew: [lhew@phhp.ufl.edu](mailto:lhew@phhp.ufl.edu)

Office: HPNP room 2169  
 Office hours: Wednesdays 4-5 PM or by appointment

**Preferred Course Communications:** email

**Prerequisites:** Anatomy with Lab and Physiology with Lab  
 Enrollment in the OTD program

**PURPOSE AND OUTCOME**

**Course Overview:**

The purpose of this course is to provide the student with lecture and laboratory study of human nervous system. The course is designed for occupational therapy (OT) focused on pertinent material including neuroanatomy, neurophysiology, and disorders of the human nervous system. Emphasis is put on the relationship between structure and function in the nervous system. Understanding the normal nervous system functioning is a starting point for comprehending various disorders of the nervous system. A key goal of this course is to provide students with sufficient knowledge for engaging in clinical problem solving, by applying neurophysiological and neuroanatomical principles to case studies of neurological disorders.

**Relation to Program Outcomes:** This course is required for OTD students as part of a series of pre-requisite basic science courses.

**Student Learning Objectives: ACOTE Standard**

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:

- A. Lecture (neuroanatomy, neuroanatomy, and integrating structure & function)
1. Describe basic concepts, terminology and divisions of the nervous system.
  2. Describe the organization, structure and function of the cerebrum, diencephalon, limbic structures, basal ganglia, cerebellum, brain stem, cranial nerves, spinal cord, and peripheral nerves.
  3. Define terms and describe the cytology of the nervous system
  4. Define terms and describe conduction and transmission of nerve impulse as well as excitation and inhibition.
  5. Trace and describe the flow of blood and cerebrospinal fluid of the brain and spinal cord.
  6. Define terms and describe neurodevelopment.

7. Identify structures and describe the organization and function of sensory systems including the somatosensory, vestibular, visual and auditory systems.
  8. Identify structures and describe the organization and function of the motor systems and the control of posture and movement.
  9. Identify structures and describe the organization and function of the autonomic nervous system and the limbic system.
  10. Integrate the information of structure and function as well as dysfunction of the nervous system by applying knowledge of brain anatomy and Brodmann's areas to cortical functions in the various areas and lobes and infer the disorders related to the various neurological structures.
- B. **Brain (neuroanatomy) lab:** Identify basic structure and function of the brain and spinal cord:
11. Identify structures and describe their functions; including: the cerebrum, diencephalon, cerebellum, brain stem & cranial nerves, and spinal cord & spinal nerves.
  12. Identify vascular and ventricular structures, trace blood and CSF flow in the brain and spinal cord.
- C. **Disorders lab objectives:** integrate the knowledge of normal anatomy and physiology to understand the nature of various injuries, conditions and disorders of the nervous system.
13. Identify laboratory procedures and physician's examination used in neurodiagnosis.
  14. Describe the etiology, symptoms, signs and treatment of major neurological diseases, disorders, and dysfunctions.
  15. Relate specific disorders to the neurological structures studied in the brain labs.
  16. Differentiate between various disorders given known signs and symptoms.
  17. Compare and contrast between different lesions based on their location in the brain.

### Instructional Methods

The students will participate in lecture and in laboratory study of specimen & models as well as case studies of neurological disorders. All lab material and some lecture material is delivered using blended learning for which students watch pre-recorded lectures **prior** to lab and/or lecture and must come prepared for class.

### 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

Week	Date(s)	Topic(s)
1	8/22 – 8/24	Introduction, Levels of CNS Function, Cerebrum

Week	Date(s)	Topic(s)
2	8/29 – 8/31	Cytology and nerve conduction; Lab: Cerebrum
3	9/5 – 9/7	Cytology and nerve conduction; Lab: Coronals
4	9/12 – 9/14	Segments of the Neuron; Lab: Blood Supply & Ventricles
5	9/19 – 9/21	Blood Supply and CSF; Lab: Brainstem & Cranial Nerves
6	9/26 – 9/28	Basal ganglia; <b>Lecture Exam (Exam 1)</b> ; Lab: Cerebellum & Spinal Cord
7	10/3 – 10/5	Neurodevelopment, Cerebellum & spinal cord function; <b>Brain Lab Exam</b>
8	10/10 – 10/12	Functional Components; Lab: Tumors & Infections of the CNS
9	10/17 – 10/19	Spinal reflexes; Lab: Neurodiagnosis & Congenital Disorders
10	10/24 – 10/26	Motor system; Lab: Cerebellar & Degenerative Disorders
11	10/31 – 11/2	Somatosensory system; Lab: Peripheral & Cranial Nerve Disorders
12	11/7 – 11/9	Vestibular System; Lab: Spinal Cord Injury (SCI)
13	11/14 – 11/16	Auditory system, <b>Lecture Exam (Exam 3)</b> ; Lab: CVA & TBI
14	11/21 – 11/23	Visual system; Thanksgiving
15	11/28 – 11/30	Visual system, Limbic system; Lab: Integration: Structure and Function
16	12/5 – 12/7	Autonomic system, Cortical Functions; <b>Disorders Lab Exam (Exam 4)</b>
17	12/12	<b>Final Exam 5 (cumulative)</b>

### Course Materials and Technology

#### A. Required:

- Class notes will be posted weekly on-line (E-learning at <https://lss.at.ufl.edu/>).
- Required Text:  
Haines D.E. Neuroanatomy: An atlas of structures, sections and systems (Latest Edition). Williams and Wilkins, Baltimore, MD.
- TopHat classroom response system will be used in class. You must have access to it. Direct URL: <http://app.tophat.com/e/486401>; The 6-digit course code is: 486401.

#### B. Recommended (optional):

- Cohen, H. Neuroscience for Rehabilitation (Newest Edition). Philadelphia: Lippincott Williams & Wilkins.
- Lundy-Ekman, L. Neuroscience: Fundamentals for Rehabilitation. (Newest Edition). Philadelphia: W.B. Saunders Co.

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

- Quizzes: there is a quiz before each lab as well as online quizzes.
- Exams: there are 2 lecture exams, two lab exams, and a cumulative final exam.

### Grading

Item	Date	Number of questions	Points per Question	Points per Test	% Grade
Exam 1: Lecture	9/27	60	2.5	150	15.0
Exam 2: Lab	10/5	70	1	70	7.0
Exam 3: Lecture	11/15	60	2.5	150	15.0
Exam 4: Disorders	12/7	70	1	70	7.0
Exam 5: Final (cumulative)	12/12	100	2.5	250	25.0

Online (Lecture) quizzes	Various	Variable	Variable	170	17.0
Brain Lab quizzes	Every lab	Variable	Variable	50	5.0
Disorder Lab quizzes	Every lab	Variable	Variable	70	7.0
Professional Behavior				20	2.0
Total Points				<b>1000</b>	100.0

\* Professional points are based on attendance:

- Unexcused absences from lab result in subtracting 5 points per missed lab. In addition, lab quizzes are given at the beginning of lab, so if you are late for lab you will NOT be able to make up the quiz.
- Unexcused absences from lecture result in subtracting 2 points per missed lecture. Attendance will be randomly taken based on Top Hat participation.

<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.

<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>

#### **Policies related to attendance, make up work and exams:**

Attendance to program and course activities is required. For a review of the OTD Attendance policies and documentation requirements see the *OTD Student Handbook*. Emergency issues will be handled on an individual basis.

All faculty 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> .

## **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
3. **Specific Behavior in Lab:**
  - a. **Brain Lab:**

- 1) Preparation for Lab: blended learning: students are expected to come prepared to lab by watching a pre-recorded lecture on specific structures (which will be posted on E-learning) before coming to lab. There will be a 10 question quiz at the beginning of each lab.
- 2) Lab attire: Students must wear scrubs or a lab coat and close toed shoes (no sandals). Students must bring gloves to lab (nitrile, vinyl or latex). Wooden probes will be provided.
- 3) Use of laboratory materials: Neural specimens are very fragile and must be handled with care. Specimen must not be allowed to dry out. Do not use water!! Only use the Biostat fluid. Wet a paper towel to cover parts of specimen when out of the buckets for an extended period of time. Do not poke the specimen with a pencil or pen! Gently touch with a wooden probe.
- 4) Lab clean-up: Students are expected to clean up after themselves in lab and return all lab materials to their proper place. Students are not to remove atlases, models, specimen or other lab materials from the classroom.

#### **b. Disorders Lab:**

- 1) Preparation for Disorders Lab: blended learning: students are expected to independently study the material and come prepared to participate in lab, including discussion and solution of case studies ("identify the lesion" lab exercises). Specific materials for lab are posted on E-learning. Preparation includes both reading the posted material and watching a pre-recorded lecture. There will be a 5 -10 question quiz at the beginning of each lab.

#### **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)

---

## SUPPORT SERVICES

### Accommodations for Students with Disabilities

If you require classroom accommodation because of a disability, you must register with the Dean of Students Office <http://www.dso.ufl.edu> within the first week of class. The Dean of Students Office will provide documentation of accommodations to you, which you then give to me as the instructor of the course to receive accommodations. Please make sure you provide this letter to me by the end of the second week of the course. 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.

---