

# Neurobiology and Behavior (BIOL/PSYC 352)

BIOL/PSYC 352 CRN# 22656 and 20954 Spring 2016

## Course Meeting Information:

Meeting Time:  
Tuesdays/Thursdays  
12:15—1:30 PM

Meeting Location:  
Robert Scott Small  
Building Room 104

## Inside this syllabus:

Using OAKS 2

Assignment  
Descriptions 3

Grading Scale 3

Course Schedule 4

Course policies 5

Contact  
information and  
Office Hours 5

## Welcome to BIOL/PSYC 352!

The nervous system controls every aspect of every interaction that a person has with the world whether it is collecting information from the environment or reacting to the environment. In this course we will explore the anatomy and physiology of the nervous system through the use of clinical neurology cases. We will examine the major nuclei, tracts, paths, and plexuses in the central and peripheral nervous systems and discuss how these areas work to produce behavior.

By the end of the semester, you should be able to:

- ◆ Identify the anatomical location and function of the major features of the central and peripheral nervous systems including:
  - ◆ Motor and somatosensory pathways
  - ◆ Major nerves including cranial and spinal nerves
  - ◆ Vascularization of the brain and spinal cord
  - ◆ Brainstem, cerebellum, limbic system, basal ganglia, hypothalamus, pituitary, and cerebral cortices.
- ◆ Review clinical neurological cases and interpret symptoms to develop hypotheses on areas of damage.
- ◆ Effectively communicate peer-reviewed published neuroscience literature orally as well as in writing
- ◆ Effectively collaborate with colleagues on group projects.
- ◆ Effectively source, evaluate the validity and reliability of information, and communicate neuroscience findings to the general public.

### Pre-requisites and Co-requisites:

BIOL 352: PR: BIOL 351 or PSYC 351 or PSYC 214; PR or CO: MATH 250

PSYC 352: PR: BIOL/PSYC 351 or PSYC 214, or instructor permission.

Note: This course is cross-listed. A student may receive credit for BIOL 352 or PSYC 352 but not both.

### Required Textbooks:

Neuroanatomy Through Clinical Cases. 2<sup>nd</sup> Edition (2010). Hal Blumenfeld.

Additional materials will be posted on OAKS (<https://lms.cofc.edu>). Click on the link for BIOL/PSYC 352—Neurobiology and Behavior.

## Helpful OAKS Tools

**I will use OAKS throughout this course. Below is a short list of tools that you may be helpful.**

### News Feature:

This is on the main page for the course. It will be updated regularly with announcements.

### Course calendar:

Lists upcoming due dates. You can find all of the dates that assignments are due here.

### Content:

This is the location that you can find additional readings, lecture materials, and assignments.

### Dropbox:

The location in OAKS where you will submit your short writing assignments. You can locate the dropbox in the "Grades" pull down menu. Select "Grades," then "Dropbox." Make sure to select the appropriate dropbox folder for your assignment.

### Attendance:

This keeps a record of your attendance in class. Your attendance record can be found in the "Management" dropdown menu. Select "Management" then "Attendance." Please see attendance policy for more information.

### Grades:

This lists all of your grades for your assignments. This will be updated throughout the course. Grades can be found in the "Grades" dropdown menu. Select "Grades" then "Grades."

### Class list:

You can access the list of everyone enrolled in this course via the "Class list." This is found in the "Communication" dropdown menu. Select "Communication," then "Class list." From here you can privately message anyone in the course. You can also view who is online at any time.

### Quizzes:

Quizzes will be used to help guide your reading. These can be accessed during each module from the Grades dropdown menu. Select "Grades," then "Quizzes." Make sure to select the correct quiz from the list. You may take the graded quiz once per module.

### Discussion board:

This is the space for you to post questions and comments about the material, engage in discussion with your classmates. You can find the discussion board in OAKS under the Communications dropdown menu. Once you click on "Communication," select "Discussions." You will then find a list of threads. You can respond to a thread that already exists or add your own by clicking "start a new thread."

### Notifications and Reminders:

You are encouraged to enable notifications in your OAKS account to allow you to receive email or text messages when new important information is posted to the course. You can enable notifications by selecting the drop down arrow beside your name in the top right hand corner of your OAKS window and then select notifications.

**For additional help with OAKS: <http://blogs.cofc.edu/scs/2014/05/15/oaks-tutorials/>**

## Reading Quizzes

After reading the assigned texts, you will have the opportunity to take a quiz on the reading. The quiz will be on OAKS and will be open-book, open-note, but it will be timed. The purpose of the quiz is to help you better assess your knowledge of the material for each module. You will be allowed to drop your lowest quiz grade (top 11 quiz grades will count). Because you are allowed to drop a quiz, no make-up quizzes will be given.

## APA-style Paper

To allow you to learn more about a specific disease that interests you, you will write a 4-5 page paper describing a neurological condition (pre-authorization required for the topic), discuss the etiology and symptomology, discuss relevant clinical testing for diagnosis, review treatment options and prognoses. You should use a minimum of 3-5 peer reviewed academic references (indexed on pubmed.gov).

## Group Presentations

During the semester, you will be divided into small groups. As a group, you will be responsible for finding a topic related to your assigned module that was not discussed in the reading. You will research that topic and teach the information to the class. Creativity in the presentations is encouraged. The presentations will be given at the beginning of class each Thursday. You must complete your first in-class presentation no later than midterm.

## Exams (1 mid-term and 1 cumulative final)

There will be 1 mid-term exam given during the semester and a final cumulative exam given during the final exam period during finals week. Exams will include **both lecture and text material** and will consist of a varied format (multiple choice, short answer/essay, diagrams, oral presentations, etc.). If a topic is in the assigned reading, it is fair game for the exam regardless of whether we discussed the topic in class. Also, many topics discussed in class are not covered in the textbook. These topics will still be covered in the exam. It is your responsibility to attend class and keep up with all material covered.

**No make-up exams will be given without documentation from the Dean of Students AND the instructor's permission.** Documentation must be sent to the instructor as soon as possible after the missed period. Unexcused absences from an exam will result in a zero for that exam. If a make-up is given, the exam may vary in format from the original. If you expect to have an excused absence on an exam day (athletic activity, etc), please contact me prior to your departure to make alternative arrangements. Please arrive on time to all exams; arriving late to an exam will not extend the exam period. No one will be permitted to start an exam once the first exam has been turned in.

## Neuroscience in the News

Neuroscience is a rapidly changing field with new discoveries published daily. To keep abreast of the newest discoveries, each student will be required to tweet to the class at once each week a current event (#CofCSystemsNeuro). We will discuss how you can use Twitter to increase your knowledge of what's happening now in neuroscience. Details on how to sign up and use Twitter are provided in a handout on OAKS.

## Participation and Attendance

Your attendance and active participation are critical to the success of this course. During the class periods we will engage in a lot of discussion. These discussions will be richer and more interesting if everyone participates and shares their knowledge. Thus, participation in the course will be graded. As a class, we will develop a rubric for this assessment.

**LATE ASSIGNMENTS ARE NOT ACCEPTED AND WILL RESULT IN A ZERO FOR THE ASSIGNMENT.**

### Grading:

Reading Quizzes	300 (12 X 25 points each)
Exams (midterm and final)	250 (2 x 125 points each)
Research Paper	150
Group Presentations	200 (2 x 100 points each)
Neuroscience in the News (Twitter Assignment)	55 (11 x 5 points each)
Attendance and Participation	45
Total	1000 points total

### Grading Scale:

A	=	≥ 94%	≥ 94%	C	=	740-769	74-76.99%
A-	=	900-939	90-93.99%	C-	=	700-739	70-73.99%
B+	=	870-899	87-89.99%	D+	=	670-699	67-69.99%
B	=	840-869	84-86.99%	D	=	640-699	64-66.99%
B-	=	800-839	80-83.99%	D-	=	600-639	60-63.99%
C+	=	770-799	77-79.99%	F	=	0-599	<59.99%

WEEK	DATE	TOPIC	READING	ASSESSMENT
1	Jan 7	Introduction and Historical Perspectives		
2	Jan 12 Jan 14 Jan 15	Survey of Human Neuroanatomy	Chapter 2	Quiz x2 due @ 5 PM
3	Jan 19 Jan 21 Jan 22	Neuroanatomical Research Methods: Neurologic Exam Neuroanatomical Research Methods: Imaging	Chapter 3 Ch 4 and Reading on OAKS	In Class Presentation Quiz due @ 5 PM
4	Jan 26 Jan 28 Jan 29	Cranium, Ventricles, and Meninges	Chapter 5	In Class Presentation Quiz due @5 PM
5	Feb 2 Feb 4 Feb 5	Corticospinal Tract and Other Motor Pathways	Chapter 6	In Class Presentation Quiz due @ 5 PM
6	Feb 9 Feb 11 Feb 12	Somatosensory Pathways	Chapter 7	In Class Presentation Quiz due @ 5 PM
7	Feb 16 Feb 18 Feb 19	Spinal Nerve Roots Peripheral Nerves and Major Plexuses	Chapter 8 Chapter 9	In Class Presentation Quiz due @ 5 PM
8	Feb 23 Feb 25 Feb 26	Cerebral Hemispheres and Vascular Supply	Chapter 10	In Class Presentation Quiz due @ 5 PM
9	Mar 1 Mar 3	<b>Midterm Exam</b> Brain Stem: External Characteristics and Cranial Nerves	Chapter 12	Midterm Exam
10	Mar 8 Mar 10	<b>Spring Break—No Class</b> <b>Spring Break—No Class</b>		
11	Mar 15 Mar 17 Mar 18	Brain Stem: Internal Structures and Vascular Supply Cerebellum	Chapter 14 Chapter 15	In Class Presentation Quiz due @ 5 PM
12	Mar 22 Mar 24 Mar 25	Basal Ganglia	Chapter 16	In Class Presentation Quiz due @ 5 PM
13	Mar 29 Mar 31 Apr 1	Pituitary and Hypothalamus	Chapter 17	In Class Presentation Quiz due @ 5 PM
14	Apr 5 Apr 7 Apr 8	Limbic System	Chapter 18	In Class Presentation Quiz due @ 5 PM
15	Apr 12 Apr 14 Apr 13	Higher Order Cerebral Function	Chapter 19	In Class Presentation Quiz due @ 5 PM
16	Apr 19 Apr 21	<b>No Class— “Monday” classes meet</b>		In Class Presentation
17	Apr 28	<b>Cumulative Final Exam</b>		Final Exam
<b>Final Exam will be given during the Final Exam Period on Thursday, April 28, 4—7 PM.</b>				

Important Dates:

February 23: deadline for approval for research paper topic

February 25: deadline to complete first in-class presentation

March 1: midterm exam

April 5: APA research paper due

April 28: final exam

\*The neuroscience in the news tweets will be due each Thursday no later than the start of class. You must complete a tweet each week (as defined as Thursday at 1:30 PM through the following Thursday at 12:15 PM. Tweets are not due for weeks that include an exam (3/3 or 4/28), Spring break (3/10), the week after Spring break (3/17), the first week of class (1/7-1/14), or the final week of class (4./21). Tweets will be due on 1/21, 1/28, 2/4, 2/11, 2/18, 2/25, 3/24, 3/31, 4/7, and 4/14. We will discuss some of the tweets in class, so please come prepared to discuss your tweet.



Dr. Jennifer Wilhelm  
Office Address:  
65 Coming St., #108  
Mailing Address:  
66 George Street  
Charleston, SC 29424

Phone: 843-953-1064

E-mail:  
wilhelmjc@cofc.edu

Office hours:  
Tuesdays 9:00—10:30 AM;  
Thursdays 9:00—10:30 AM;  
and by appointment.

## Course Policies

### Participation:

Your participation is critical to the success of this course. During the semester we will work together to better understand the issues surrounding psychopharmacology. This is a discussion based course meaning that the majority of class time will be used for students to talk about the readings and assignments with one another. Please use professional etiquette and be mindful of your language when conversing with your classmates. Everyone has a valuable point of view, and diversity must be respected.

Active engagement is critical for course success. Computers, cell phones, headphones, and disruptive conversation are not permitted in the classroom, as they are disrespectful to those who are actively engaged in the learning process. Please turn off all devices before class begins.

### Attendance:

Attendance will be taken daily. Points will be deducted for unexcused absences. Arriving more than fifteen (15) minutes late will count as an unexcused absence. Absences will not be excused unless permitted in writing by the Absence Memo Office. Official excuses from the Absence Memo Office must be presented to the instructor within one week of returning to class. It is your responsibility to make up for missed class time by getting notes from other students, learning about announcements, and learning information presented during class time. There are no unimportant class periods; it is your responsibility to keep up. Missing more than 6 classes (that is 3 weeks!) throughout the semester will result in being withdrawn from the class and assigned a grade of WA.

### OAKS:

I will use OAKS to post all of the information necessary for this course this semester. It is your responsibility to check the course site often. I suggest that you check OAKS no fewer than 3-4 times per week.

### Email:

I strive to respond to emails in a timely manner. Emails received M-F from 8-5 PM will be returned within 24 hours. Emails received after normal business hours may not be returned before the next business day. Please use your g-mail/institutional email account when sending class correspondence and include the course name (BIOL/PSYC 352) in the subject line.

### Technical Issues:

If you are having trouble accessing the course in OAKS please contact the Student Computing Support Desk at (843) 953-5457 or [studentcomputingsupport@cofc.edu](mailto:studentcomputingsupport@cofc.edu). Computer failure/internet unavailability is not an acceptable excuse for late or missing work.

### Academic Honesty:

All work in this course must be your own. Copying, cheating, and plagiarism will not be tolerated. In accordance with the College's Honor Code, violations will result in a minimum of a zero on the exam/project and referral to the Dean of Student Affairs.

### Additional Assistance Information:

The College will make reasonable accommodations for persons with documented disabilities. Students should apply for services at the Center for Disability Services/SNAP located on the first floor of the Lightsey Center, Suite 104. Students approved for accommodations are responsible for notifying me as soon as possible and for contacting me at least one week before accommodation is needed.

### Center for Student Learning:

I encourage you to utilize the Center for Student Learning's (CSL) academic support services for assistance in study strategies and course content. They offer tutoring, Supplemental Instruction, study skills appointments, and workshops. Students of all abilities have become more successful using these programs throughout their academic career and they are available to you at no additional cost. For more information regarding these services please visit the CSL website at <http://csl.cofc.edu> or call (843)953-5635.