

University of Florida  
College of Public Health & Health Professions Syllabus  
SPA 6581 - Functional Human Neuroanatomy (3 credit hours)  
Spring Semester 2022  
Delivery Format: On-Line

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Instructor's Name: Hollea McClellan Ryan, Ph.D., Au.D., CCC-A  
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Office Hours: By appointment via zoom  
Preferred Course Communication: e-mail

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**Prerequisite:** SPA 5102, Anatomy & Physiology of Hearing & Balance

**PURPOSE:** For students to have a basic knowledge of neuroanatomy to facilitate their understanding of typical and atypical communication and to facilitate an in-depth understanding of how the brain processes auditory stimuli into meaningful sounds.

**Course Overview:** Students will be exposed to basic concepts related to neuroanatomy and neurophysiology, embryonic development, central and peripheral nervous systems, and neural development. Students will have greater exposure to concepts related to the complex process of the auditory cortex creating meaning from auditory stimuli.

**Relation to Program Outcomes:** This course will build fundamental knowledge that will facilitate clinical learning. Additionally, knowledge from this course should complement and provide a foundation on which knowledge gained in other courses will form a knowledgebase from which the students can pull from to successfully pass the PRAXIS.

**Course Objectives:** Are designed to facilitate the students' ability to meet 2020 Standards for Certification of Clinical Competence by American Speech-Language-Hearing Association (ASHA): Standard II: Knowledge and Skills Outcomes, Standard II-A (Foundations of Practice).  
[<https://www.asha.org/certification/2020-Audiology-Certification-Standards/#standardIV>]

After completing this course, students will be able to:

- Demonstrate basic knowledge and understanding of the different central and peripheral nervous systems, particularly in their contribution to communication (II-A, a1, a2, a3)
- Demonstrate a knowledge of the sensory systems (II-A: a1, a3);
- Detail the human auditory mechanisms, including anatomy and neuroanatomy of both the central and peripheral nervous systems (II-A: a1, a3);
- Detail how the brain processes auditory input into a meaningful context (II-A: a1, a3, a4, a8, a9, a10)

**Instructional Method:** Lectures, readings, and class discussions via an on-line format. All meetings will be recorded. Students will also be required to watch additional videos on provided topics as determined by the instructor.

**Required Textbook:**

1) Neuroscience for the Study of Communicative Disorders, 5th edition by Subhash Bhatnagar.

Publishers: Wolters Kluwer. ISBN13: 9781496331519

2) Of Sound Mind: How Our Brain Constructs a Meaningful Sonic World by Nina Kraus. Publisher: MIT

Press. ISBN: 9780262045865

***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.



**Course Content Schedule\***

<b>Week</b>	<b>Dates</b>	<b>Topics</b>	<b>What's Due**</b>
1	1/6/22	1) Introduction to Instructor 2) Review of Syllabus and course expectations 3) Introduction to Neuroanatomy	1) <b>Read:</b> Chapter 1 2) <b>In-class activity:</b> Would you rather
2	1/13/22	1) Continue with Intro to Neuroanatomy 2) Review of The Auditory System/A & P (as needed)	1) <b>Review:</b> Ch. 1 as necessary 2) <b>Assignment:</b> Discussion board Activity
3	1/20/22	1) Gross Anatomy of the CNS 2) Internal Anatomy of the CNS	1) <b>Read</b> Chapters 2 & 3 2) <b>Assignment:</b> Quiz

4	1/27/22	<ol style="list-style-type: none"> <li>1) Development of the Nervous System</li> <li>2) Nerve Cell Physiology</li> </ol>	<b>1) Read:</b> Chapter 4 & 5
5	2/3/22	<p>Brief discussion on the following:</p> <ol style="list-style-type: none"> <li>1) Diencephalon</li> <li>2) Cerebrovascular System</li> <li>3) Ventricles and Cerebrospinal Fluid</li> </ol>	<b>1) Read:</b> Chapters 6, 7 & 8 <b>2) Assignment:</b> Discussion board Activity
6	2/10/22	Material Review for Test 1	<b>1) Test 1</b>
7	2/17/22	<ol style="list-style-type: none"> <li>1) Review of Test 1</li> <li>2) Visual System (12)</li> <li>3) Auditory System (9)</li> <li>4) Vestibular System (10)</li> <li>5) Somatosensory System (11)</li> </ol>	<b>1) Read:</b> Chapters 9, 10, 11, & 12 <b>2) Assignment:</b> Discussion board activity
8	2/24/22	<ol style="list-style-type: none"> <li>1) Motor System <ol style="list-style-type: none"> <li>a) Spinal cord</li> <li>b) Cerebellum</li> <li>c) Basal Ganglia</li> <li>d) Motor Cortex</li> </ol> </li> </ol>	<b>1) Read:</b> Chapters 13, 14, 15, & 16 <b>2) Assignment:</b> 1) Mid-semester questionnaire <b>3) Assignment:</b> Quiz
9	3/3/22	<ol style="list-style-type: none"> <li>1) Cerebral Cortex</li> <li>2) Clinical Concepts</li> </ol>	<b>1) Read:</b> Chapters 19 & 20
10	3/10/22	Review for Test 2	<b>1) Test 2</b>
11	3/17/22	<b>SPRING BREAK – NO CLASS</b>	
12	3/24/22	<ol style="list-style-type: none"> <li>1) Test 2 Review</li> <li>2) Group Division and Chapter Assignments</li> </ol>	<b>1) Work on:</b> Group PP Presentation
13	3/31/22	Group 1 Presents & Leads discussion on Sect.1 “How Sound Works” (chapters 1-4)	<b>1) Read:</b> Chapters 1-4 in “Of Sound Mind” by Kraus, 2021 <b>2) Group 1 Presents &amp; leads discussion</b>
14	4/7/22	Group 2 Presents (Chapters 5-9) & Leads discussion	<b>1) Read:</b> Chapters 5-9 <b>2) Group 2 Presents and leads discussion</b>
15	4/14/22	Group 3 Presents (Chapters 10-14) & Leads discussion	<b>1) Read:</b> Chapters 10-14 <b>2) Group 3 Presents and leads discussion</b>
16	4/21/22	<ol style="list-style-type: none"> <li>1) Review of Class Material</li> <li>2) Final Exam</li> </ol>	<b>1) Assignment:</b> End-of-Semester Questionnaire(s) <b>2) Test 3</b>

\* Course schedule may be modified during the semester to better facilitate student learning at the discretion of the instructor. \*\*Some in-class or homework activities might be assigned the day of class but will require minimal time commitments.

**Course Grade:** Final grade will be determined as follows -

*Group Presentation and Discussion: 20%*

*Exams: 60%*

*Discussion board/homework activities: 10%*

*Quizzes: 10%*

### **Course Assignments**

Multiple assignments to facilitate understanding of concepts will be assigned throughout the semester. Students are expected to complete the assignments and submit via Canvas by the assigned date (posted in Canvas). Assignments are considered late immediately following the assigned due date/time. A **five percent reduction** in grade will occur for each day the assignment is late. Assignments submitted greater than 3 days after the due date, without prior approval by the instructor, will not be accepted and will result in a grade of zero.

### **Course Tests**

All tests must be completed by the due date. Students will utilize HonorLock in Canvas to complete the tests. Students must complete the exams **independently**. Should students require additional accommodations, they should contact the instructor at the beginning of class, or as soon as it is known, accommodations need to be made, so that the appropriate adjustments can be made in a reasonable timeframe.

### **Make-up Work**

Students are expected to turn in all assignments via Canvas by the due date. However, pending prior approval, or documentation of an illness or other recognized exemption, adjustments to the due-date of assignments may be made on a case-by-case basis. Students are to contact the instructor as soon as possible, preferably prior to the deadline, to discuss adjustments in the due date that will not result in reduction of points. **One** (1) exam may be rescheduled within the semester and only with prior approval and/or documentation supporting an acceptable excused absence.

### **Grading**

<b>Percentage Earned</b>	<b>Letter Grade</b>
93-100	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
67-69	D+
63-66	D
60-62	D-
Below 60	E

<b>Letter Grade</b>	<b>Grade Points</b>
A	4.0
A-	3.67
B+	3.33
B	3.0
B-	2.67
C+	2.33
C	2.0
C-	1.67
D+	1.33
D	1.0
D-	0.67
E	0.0
WF	0.0
I	0.0
NG	0.0
S-U	0.0

More information on UF grading policy may be found at:

<http://graduateschool.ufl.edu/media/graduate-school/pdf-files/handbook.pdf>

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

- [helpdesk@ufl.edu](mailto:helpdesk@ufl.edu)
- (352) 392-HELP - select option 2
- <https://helpdesk.ufl.edu/>

## **Additional Academic Resources**

[Career Connections Center](#): Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.

[Library Support](#): Various ways to receive assistance with respect to using the libraries or finding resources.

[Teaching Center](#): Broward Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring.

[Writing Studio](#): 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.

Student Complaints On-Campus: [Visit the Student Honor Code and Student Conduct Code webpage for more information.](#)

On-Line Students Complaints: [View the Distance Learning Student Complaint Process.](#)

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## **ZOOM Etiquette (Should you be in a virtual classroom.)**

- **Keep video ON and microphone OFF.**
- **Sit at a table, not propped in bed.**
- **Eat before class.**
- **Limit visual interruptions (e.g., pets)**

## **Expectations Regarding Course Behavior and Communication Guidelines**

You are expected to attend class and participate. Each class member has a different perspective and sharing provides a more meaningful exchange of ideas and interest. As a professional you will often be required to voice your opinion and perspective. Be respectful to the ideas of peers or the instructor if they differ from your own beliefs or experiences.

You may use your laptop or tablet for class notes and class participation. Reviewing your e-mail, on-line shopping, completing other assignments or any other non-class related activity is disrespectful and distracting and you will be asked to remove yourself from class. Use of phones during class is unacceptable there will be ample breaks in class to attend to your personal calls or texts. If there is an impending emergency or pressing issue please discuss with me prior to the beginning of class.

## **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/>

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/>.

## **SUPPORT SERVICES**

### **Accommodations for Students with Disabilities**

If you require classroom accommodation because of a disability, it is strongly recommended you register with the Dean of Students Office <http://www.dso.ufl.edu> within the first week of class or as soon as you believe you might be eligible for accommodations. The Dean of Students Office 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 WeCare 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>
- **University Police Department:** [Visit UF Police Department website](#) or call 352-392-1111 (or 9-1-1 for emergencies).
- **UF Health Shands Emergency Room / Trauma Center:** For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; [Visit the UF Health Emergency Room and Trauma Center website](#).

**Important:** Do not wait until you reach a crisis to talk with someone. Many students have been helped through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for assistance.

### **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)



## Professionalism and COVID

As students pursuing a path in the health professions or public health, it is crucial to demonstrate professional behaviors that reflect integrity and commitment to the health of patients, fellow health professionals, and to populations we serve. To accomplish this, a strong responsibility for the well-being of others must be evident in our decisions, along with accountability for our actions. Professionalism in the health disciplines requires adherence to high standards of conduct that begin long before graduation. This is particularly true during times of health emergencies such as the COVID pandemic, given our professional habits can have a direct impact upon the health of persons entrusted to us.

If you are not vaccinated, get vaccinated. Vaccines are readily available at no cost and have been demonstrated to be safe and effective against the COVID-19 virus. Visit this link for details on where to get your shot, including options that do not require an appointment: <https://coronavirus.ufhealth.org/vaccinations/vaccine-availability/>. Students who receive the first dose of the vaccine somewhere off-campus and/or outside of Gainesville can still receive their second dose on campus.

In response to COVID-19, the following professional practices are in place to maintain your learning environment, to enhance the safety of our in-classroom interactions, and to protect the health and safety of ourselves, our patients, our neighbors, and our loved ones.

- You are required to wear approved face coverings at all times while in Health Science Center classrooms and within Health Science Center buildings even if you are vaccinated.
- If you are sick, stay home and self-quarantine. Please visit the UF Health Screen, Test & Protect website about next steps, retake the questionnaire and schedule your test for no sooner than 24 hours after your symptoms began. Please call your primary care provider if you are ill and need immediate care or the UF Student Health Care Center at 352-392-1161 (or email [covid@shcc.ufl.edu](mailto:covid@shcc.ufl.edu)) to be evaluated for testing and to receive further instructions about returning to campus. UF Health Screen, Test & Protect offers guidance when you are sick, have been exposed to someone who has tested positive or have tested positive yourself. Visit the UF Health Screen, Test & Protect website for more information.
- Continue to follow healthy habits, including best practices like frequent hand washing.
- Avoid crowded places (including gatherings/parties with more than 10 people)

Sanitizing supplies are available in the classroom if you wish to wipe down your desks prior to sitting down and at the end of the class. Hand sanitizing stations will be located in every classroom.

Course materials will be provided to you with an excused absence, and you will be given a reasonable amount of time to make up work. If you are withheld from campus by the Department of Health through Screen, Test & Protect you are not permitted to use any on campus facilities. Students attempting to attend campus activities when withheld from campus will be referred to the Dean of Students Office.

Continue to regularly visit [coronavirus.UFHealth.org](https://coronavirus.UFHealth.org) and [coronavirus.ufl.edu](https://coronavirus.ufl.edu) for up-to-date information about COVID-19 and vaccination.

## COVID-19 Symptoms

See <https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html> for information about COVID-19 symptoms, which may include fever, cough, shortness of breath or difficulty breathing, fatigue, chills, muscle or body aches, headache, sore throat, congestion or runny nose, nausea or vomiting, diarrhea, and loss of taste or smell.

### **Recording Within the Course:**

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

### **Policy Related to Guest Attending Class:**

Only registered students are permitted to attend class. However, we recognize that students who are caretakers may face occasional unexpected challenges creating attendance barriers. Therefore, by exception, a department chair or his or her designee (e.g., instructors) may grant a student permission to bring a guest(s) for a total of two class sessions per semester. This is two sessions total across all courses. No further extensions will be granted. Please note that guests are **not** permitted to attend either cadaver or wet labs. Students are responsible for course material regardless of attendance. For additional information, please review the Classroom Guests of Students policy in its entirety. Link to full policy: <http://facstaff.php.ufl.edu/services/resourceguide/getstarted.htm>