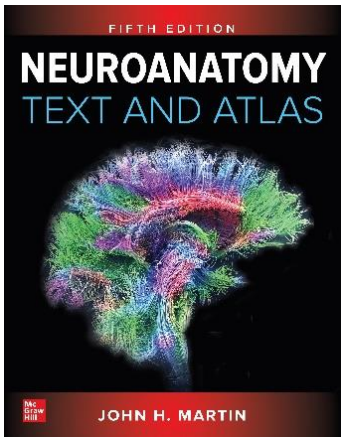
PSYC 4345 / PSYC 6377, Neuroanatomy, Spring 2025

Instructor: Arnold Gutierrez, Ph.D.
Email: agutierrez98@utep.edu
Office Hours: Monday – Friday by appointment

Course: PSYC 4345 (CRN: 25942) / PSYC 6377 (CRN: 27733)
Mode of Instruction: In-person
Class Days/Times: Monday/Wednesday 10:30am-11:50am
Location: Psychology 105
Term: Spring 2025
Prerequisites (PSYC 4345)**:** PSYC 3201 & PSYC 3101



Required Text
The textbook can be accessed online by UTEP students at no cost through the library: (https://www.utep.edu/library).
Purchasing a copy of the textbook is not required
Neuroanatomy Text and Atlas (5th edition)
John H. Martin, McGraw-Hill Co.
ISBN-13: 9781259642487 or ISBN-10: 1259642488

Additional course materials will be announced and posted on Blackboard.

Course Description
The material covered in this course will primarily focus on regional neuroanatomy (i.e., the localization of regions and structures of the brain). However, the general function of the structures reviewed will be included in the discussion to provide context and to introduce students to topics covered in more advanced coursework. While the primary focus of this course will be on human neuroanatomy, there will be some attention to the neuroanatomy of other species.

Course Goals/Student Learning Objectives
The goal of this course is to introduce students to the various structures and pathways of the human brain and to provide a foundation for understanding the anatomical and functional organization of the nervous system. A major objective of this class is to familiarize students with the structures and pathways of the brain that give rise to functional systems. By the end of the semester, students will be able to identify brain structures, group and classify structures based on location and function, and be able to discuss the major pathways and the specific type of information that travels these pathways. The course will focus on content from the assigned textbook, assigned sources, hands-on experience with sheep brains, and content introduced during lecture discussion.

Student Learning Outcomes
Upon successful completion of this course, students will be able to:

- Describe the embryonic origins of the various components of the central nervous system
- Identify structures of the human brain and classify them according to location and function
- Describe neural pathways and the type of information that travels along them
- Discuss the structures and pathways involved in specific functions of the brain
- Think critically about how damage to specific components of the nervous system can impact function
- Give thoughtful consideration to the role that your nervous system plays in your everyday life

Course Schedule

Week			Class Topic	Chapter Readings & Assignments
1	W	22-Jan	Syllabus review and Introduction to Neuroanatomy	Syllabus
2	M	27-Jan	Organization of the CNS part 1	Chapter 1; HW1 assigned
2	W	29-Jan	Organization of the CNS part 2	Chapter 1
3	M	3-Feb	Organization of the CNS part 3	Chapter 1; ***HW1 due***
3	W	5-Feb	Structural & functional organization of the CNS part 1	Chapter 2; HW2 assigned
4	M	10-Feb	Structural & functional organization of the CNS part 2	Chapter 2; ***HW2 due***
4	**W**	**12-Feb**	**EXAM 1**	
5	M	17-Feb	Sheep Brain Dissections Begin	***Paper proposal due (PSYC 6377)***
5	W	19-Feb	Sheep Brain Dissections	
6	M	24-Feb	Sheep Brain Dissection	
6	W	26-Feb	Sheep Brain Dissection	
7	M	3-Mar	Sheep Brain Dissection	
7	**W**	**5-Mar**	**SHEEP BRAIN PRACTICUM**	
8	M	10-Mar	SPRING BREAK	
8	W	12-Mar	SPRING BREAK	
9	M	17-Mar	The Visual System	Chapter 7; HW3 assigned
9	W	19-Mar	The Visual System	Chapter 7
10	M	24-Mar	The Visual System	Chapter 7; ***HW3 due***
10	W	26-Mar	Somatic Sensation: Spinal Mechanosensensation	Chapter 4; HW4 assigned (chapts4-5)
11	M	31-Mar	Somatic Sensation: Pain, Temperature, and Itch	Chapter 5; ***HW4 due***
11	W	2-Apr	Descending Motor Systems	Chapter 10; HW5 assigned
12	M	7-Apr	Descending Motor Systems	Chapter 10; ***HW5 due***
12	**W**	**9-Apr**	**EXAM 2**	
13	M	14-Apr	The Cerebellum	Chapter 13; HW6 assigned; ***Paper Due (PSYC 6377)***
13	W	16-Apr	The Cerebellum	Chapter 13; ***HW6 due***
14	M	21-Apr	The Basal Ganglia	Chapter 14; HW7 assigned
14	W	23-Apr	The Basal Ganglia	Chapter 14
15	M	28-Apr	The Basal Ganglia	Chapter 14; ***HW7 due***
15	W	30-Apr	The Limbic System	Chapter 16; *HW8 assigned*
16	M	5-May	The Limbic System	Chapter 16; ***HW8 due***
16	W	7-May	Graduate Student Presentations	
17	**M**	**12-May**	**EXAM 3 (FINAL EXAM)**	

**Please note that the instructor reserves the right to modify the course schedule. Students will be notified as early as possible in the event that modifications to the schedule will be made.*

Course Evaluation: Assignments and Requirements

Homework

Homework assignments may require students to provide descriptions of the function(s) of specific brain regions or pathways, hand-drawn illustrations of pathways and nuclei, or to identify structures/regions/nuclei on sectioned brain images or provided blank brain atlas images. Homework assignments will be related to a specific chapter or set of chapters. Homework will be assigned before the start of the first lecture associated with the chapter. All assignments are due by 11:59pm on the last day associated with the chapter. Dates of assignment and due dates are listed on the course schedule. Homework assignments will be submitted through Blackboard.

Sheep Brain Practicum

Students will have the opportunity to work with sheep brains to further enhance their knowledge of gross brain anatomy. After having the opportunity to work hand-on with the sheep brains, students will participate in a practicum.

Exams

There will be a total of 3 exams, including the final exam. The exams will cover material presented during class. This will largely be based on the textbook but will also include material introduced during the lecture and any assigned readings.

Presentation Participation (PSYC 4345 Only)

Students enrolled in PSYC 4345 will have the opportunity to attend and critically evaluate presentations by the graduate students enrolled in PSYC 6377. To receive credit, students must:

1) Participate in the discussion (students will be provided with participation criteria).
2) Submit a completed form that includes specific (and accurate) information about one of the presentations. A blank copy of the form will be provided to you.

Additional Requirements for PSYC 6377 Graduate-Level Credit

Literature Review (PSYC 6377 Only)

You will write a paper on a brain structure/pathway of your choosing, with approval from the instructor.

Paper proposal: Submit a document with two brain regions/structures that you would be interested in writing a paper on. Include a list of at least 10 peer-reviewed primary research articles that you plan to review for your paper.

Paper: The paper should discuss the function of the structure/region and should provide evidence of the specific brain-function relationship from primary research articles. The paper should be a maximum of 5 pages in length, excluding works cited. The paper should include a minimum of 6 primary research articles as references. The paper should clearly reflect an understanding of the reviewed literature. The paper should critically evaluate the literature. More detailed instructions for completing this requirement will be provided.

Oral Presentation (PSYC 6377 Only)

You will give a 10-minute presentation on your topic. The presentation should include background information, research findings and important data, and a thoughtful critical evaluation of the findings. You will have 5 minutes to answer questions after your presentation.

Evaluation Method: PSYC 4345

Assignment	Points
Homework assignments	50
Sheep brain practicum	60
Exam 1	60
Exam 2	60
Exam 3 (Final Exam)	60
Presentation participation	10
TOTAL	300

Course Grading Scale: PSYC 4345

Range	Letter Grade
270 – 300	A
240 – 269	B
210 – 239	C
180 – 209	D
Below 180	F

Evaluation Method: PSYC 6377

Assignment	Points
Homework assignments	50
Sheep brain practicum	60
Exam 1	60
Exam 2	60
Exam 3 (Final Exam)	60
Paper	45
Oral presentation	30
TOTAL	365

Course Grading Scale: PSYC 6377

Range	Letter Grade
329 – 365	A
292 – 328	B
256 – 291	C
219 – 255	D
Below 219	F

Technology Requirements

Blackboard
Course content, such as lecture slides, helpful videos, additional reading material, and homework assignments will be made available through Blackboard learning management system.

Computer Access and Internet
Announcements, slides, and occasional supplementary material will be shared through Blackboard. Additionally, access to external resources such as online 3-D brain atlases is highly encouraged. A computer and internet access are therefore required.

iClicker
We will be using iClicker for some in-class activities and discussions. To make a student account, go to https://student.iclicker.com/#/login and click on Sign Up. Select UTEP as your institution and complete the form to activate your account.

Course Communication

E-mail
UTEP e-mail is the best way to contact me. I will make every attempt to respond to your e-mail within 24 hours of receipt. When e-mailing me, be sure to email from your UTEP student e-mail account. Please indicate the course number in the subject line. In the body of your e-mail, make sure that you clearly state your question. At the end of your e-mail, please be sure to state your first and last name, and your university identification number.

Announcements
Check the Blackboard announcements frequently for any updates, deadlines, or other important messages. Under some circumstances, I may need to contact you directly via e-mail; therefore, please check your e-mail frequently.

Office Hours
I will hold office hours to answer questions and address issues related to the course by appointment only. You may schedule office hours in-person or request a virtual meeting via Zoom.

Attendance Policy
Students are expected to attend classes regularly. In-class activities are designed to contribute to your learning experience by giving you early opportunities to identify areas where you may need improvement, and by allowing you to engage in discussions with your peers and the instructor to enhance your understanding concepts related to the course material. There are no make-ups for in-class activities.

Etiquette
Students are required to be polite and respectful to others during class. This includes, but is not limited to, not being disruptive to others, not having other conversations during lecture or class discussions, not attending to non-class related materials during meetings (texting, playing games, watching movies, listening to music, etc.), and not engaging in any inappropriate activities. Professional e-mails should include the course number (e.g., PSYC 4345) in the subject line. Starting e-mails with the proper salutations (Dear Dr._____) is a good idea in general when reaching out professionally, not just in this class. Additionally, please remember to identify yourself with your full name and student number.

Late Work/Make-Up Policy
Make-up work will not be given, except for work that was missed due to a documented emergency. Assignments missed due to reasons other than excused emergencies cannot be made up and will receive a

score of zero. It is important to reach out to me as soon as possible after you have missed a requirement to determine the reasons for you missing the deadline. If possible, reach out to me in advance if you think you may miss an assignment due to an emergency.

Course Drop Policy

I will not drop you from the course. If you feel that you are unable to complete the course successfully, it is your responsibility to let me know and to contact the Registration and Records Office to initiate the drop process. If you do not, you are at risk of receiving an "F" for the course.

Accommodations Policy

Students who require reasonable accommodations related to documented disabilities as well as students who become pregnant may register with the UTEP Center for Accommodations and Support Services (CASS) to make a request for reasonable accommodations by contacting CASS at 915-747-5148, emailing CASS at cass@utep.edu, or applying for accommodations online via the CASS portal.

Academic Integrity Policy

Academic dishonesty violates the UTEP Handbook of Operating Procedures. It is prohibited by the University, and it will not be tolerated. Examples of academic dishonesty include cheating, plagiarism, and collusion. Examples of cheating include, but are not limited to, providing information and/or answers to another student to use for an assignment that requires a student to provide information and/or answers that the student acquired on their own, and providing or receiving answers to a quiz or an exam. Plagiarism occurs when the ideas or words of another person, even a peer, or a web site, are knowingly used as if they were your own. Work that you submit is assumed to be original unless your source material is documented appropriately, such as a Works Cited page. Collusion is when one person collaborates with another to comic an act of academic dishonesty. All suspected violations of academic integrity at The University of Texas at El Paso must be reported to the Office of Community Standards for possible disciplinary action. To learn more, please visit HOOP: Student Conduct and Discipline.

Use of Artificial Intelligence

You are welcome to use artificial intelligence (AI) tools such as ChatGPT as a brainstorming tool to help you develop your ideas and as a tool to check for proper grammar to help you improve your writing. You are not, however, allowed to use AI tools to generate answers to prompts or material to submit for your assignments. Submitting AI-generated content rather than taking the time to generate your own work robs you of the processes that help you develop as a critical and creative thinker. Turning in AI-generated content to answer a prompt or complete an assignment, even when cited, is prohibited in this course. Submitting any AI-generated content as your own is prohibited and will be reported to the Office of Community Standards as plagiarism.

Course Resources

UTEP provides a variety of student services and support: https://www.utep.edu/advising/student_resources/student-success-resource-hub.html.