

## SYLLABUS

Course Information:

### **PSYC 5352.060 Behavioral Neuroscience Online/Virtual**

Instructor Information: Abigail Happli, PsyD

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**NOTE:** A student at UT-Tyler is not under any obligation to purchase a textbook from a university-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

**Course Description:** A survey of the basic anatomy and neurochemistry of the brain as it relates to both normal and abnormal behavior. This includes every major neurotransmitter of the brain and abnormalities of these systems as they relate to human behavior.

**Student Learning Outcomes:** As a result of this course, the successful students will:

1. Demonstrate knowledge of chemical neurotransmission
2. Demonstrate knowledge of transporters, receptors, and enzymes as targets of psychopharmacological drug action.
3. Demonstrate knowledge of ion channels as targets of psychopharmacological drug action.
4. Demonstrate knowledge of the circuitry of pain and the treatment of fibromyalgia and functional somatic symptoms.
5. Demonstrate knowledge of disorders of sleep and wakefulness and their treatment.
6. Demonstrate knowledge of attention deficit hyperactivity disorder and its treatment.
7. Demonstrate knowledge of dementia and its treatment.
8. Demonstrate knowledge of the neural circuitry associated with impulsivity, compulsivity and addiction.

### **Required Textbooks:**

Pinel, J. P. & Edwards, M. (2008). The Anatomy of the Human Brain. Pearson. ISBN: 978-0-205-54874-3

Higgins, E. S. & George, M. S. (2013). The Neuroscience of Clinical Psychiatry: The Pathophysiology of Behavior and Mental Illness. Walters Kluwer/Lipincott Williams and Wilkins. ISBN: 978-1-4511-0154-6

There will also be assigned PDF readings uploaded into Canvass so check the course schedule.

### ***Evaluation and Grading:***

**Essay Exams:** There are two (2) essay exams. Each essay exam will have five (5) questions (each question is worth 20 points) for a total of 100 points. Your exams will be graded based on proper identification of the issues, integrative analysis, support for your analysis, well-organized reasoning, and writing style (which includes formatting and APA). You will have three (3) hours from the time you enter the exam to open the questions and write your answers in a Word document which you will upload into Canvas for grading. If you do not upload the document before the expiration of the three (3) hours you will be locked out and will receive a zero (0) for the exam. There are no exceptions so make sure you are in a quiet place, have a secure and stable Internet connection, and have allowed adequate time.

Exam I = 20% of your grade Exam II = 20% of your grade

Exams 1-II = 40% of grade

**Quizzes:** There are ten (10) quizzes. Each quiz will consist of 25 questions and is worth 4 points for a total of 100 points per quiz. The quizzes will be true/false and multiple choice. You will have 45 minutes to complete the quiz. Each quiz is worth 5% of your grade.

Quizzes 1-10 = 50% of your grade

**Discussion Boards:** There are two (2) discussion boards. For Each Discussion board, you must write one (1) 250-500 word original discussion posting about your thoughts regarding an article that has been posted as a reading for the week with in-text citations to support points and listed references in APA format. For each discussion board, you must post two (2) 100 word minimum reply postings to students in the course with in-text citations to support points and references in APA format. The replies can be supporting the other individuals' view points or in defense of a different view point.

Discussion Board I = 5% of your grade Discussion Board II = 5% of your grade

Discussion Boards I-II = 10% of your grade

**Important Note:** Once you open the exams or the quizzes you cannot close them and re-enter. You must complete them in the allotted time. There are no exceptions. If you have an emergency (the determination of which is in my discretion) you must text me immediately at 715-571-2712 with your name, stating you are in Behavioral Neuroscience, and the nature of the emergency and I will respond to your text.

**Grading:**

A grade of 85-100 is an A, a grade of 75-84 is a B, a grade of 65-74 is a C. If a student earns a grade of 55-64 or less than 55 those grades will be a D and F, respectively. No exam or quiz grades will be dropped.

**Assignments:**

Week	Reading from Textbook/PDFs	Discussion Board	Quizzes/Exams
Week 1: Aug. 27	Pinel Chapter 1: Basic Neuroanatomy  Pinel Chapter 2: Planes and Directions in the Human Nervous System		
Week 2: Sept. 3	Higgins Chapter 2: Neuroanatomy  Pinel Chapter 4: Development of the Human Nervous System		Quiz 1 (Covers Week 1 and 2): Opens Sept. 3 at 6AM and Closes Sept. 8 at 11:59PM
Week 3: Sept. 10 *discussion board will take the place of virtual class, as I will be out of town	Article for discussion board: <i>A methodological review of fetal neurosonographic studies: New directions in assessment of neurodevelopmental risk for mental health problems.</i> Whittle, Finn, and Little et al. (2020)	Discussion Board I: Opens Sept. 7 6AM Initial Posts Due by Sept. 10 11:59PM and Two replies are due before the close date on Sept. 13 at 11:59PM	
Week 4: Sept. 17	Pinel Chapter 3: Cells of the Nervous System  Higgins Chapter 3: Circuits and Cells		Quiz 2 (Cover Week 4): Opens Sept. 17 at 6AM and Closes Sept. 22 at 11:59PM
Week 5: Sept. 24	Pinel Chapter 5: Gross Anatomy of the Human Brain		Quiz 3 (Covers Week 5): Opens Sept. 24 at 6AM and Closes Sept. 29 at 11:59PM

Week 6: Oct. 1	<p>Pinel Chapter 6: Major Structures of the Brain Stem</p> <p>Pinel Chapter 7: Major Structures of the Cerebral Hemispheres</p>		
Week 7: Oct. 8	<p>Pinel Chapter 8: Sensory Systems of the Central Nervous System</p> <p>Pinel Chapter 9: Sensorimotor Pathways of the Central Nervous System</p>		<p>Quiz 4 (Covers Weeks 6 and 7): Opens Oct. 8 at 6AM and Closes Oct. 13 at 11:59PM</p>
Week 8: Oct. 15	<p>Higgins Chapter 4: Neurotransmitters</p> <p>Higgins Chapter 5: Receptors and Signaling the Nucleus</p>		<p>Quiz 5 (Covers Week 8): Opens Oct. 15 at 6AM and Closes Oct. 20 at 11:59PM</p>
Week 9: Oct. 22	<p>Higgins Chapter 6: Genetics and Epigenetics</p>		<p>Exam I (Covers Weeks 1-9): Opens Oct. 22 at 6AM and Closes Oct. 24 at 11:59PM</p>
Week 10: Oct. 29	<p>Higgins Chapters 7: Hormones and the Brain</p> <p>Higgins Chapter 8: Adult Development and Plasticity</p>		<p>Quiz 6 (Covers Week 10): Opens Oct. 29 at 6AM and Closes Nov. 3 at 11:59PM</p>
Week 11: Nov. 5	<p>Pinel Chapter 10: Brain Structures and Memory</p> <p>Higgins Chapter 18: Memory</p> <p>Higgins Chapter 24: Alzheimer's Disease</p>		<p>Quiz 7 (Covers Week 11): Opens Nov. 5 at 6AM and Closes Nov. 10 at 11:59PM</p>

Week 12: Nov. 12	<p>Higgins Chapter 9: Inflammation and Immunity</p> <p>Higgins Chapter 10: The Electrical Brain</p> <p><i>Discussion board article: Frailty, inflammation, and immunity</i></p>	Discussion Board II: Opens Nov. 9 6AM Initial Posts Due by Nov. 12 11:59PM and Two replies are due before the close date on Nov. 15 at 11:59PM	Quiz 8 (Covers Week 12): Opens Nov. 12 at 6AM and Closes Nov. 17 at 11:59PM
Week 13: Nov. 19	<p>Pinel Chapter 11: Motivational Systems of the Brain</p> <p>Higgins Chapter 11: Pain</p> <p>Higgins Chapter 12: Pressure</p> <p>Higgins Chapter 13: Appetite</p> <p>Higgins Chapter 14: Anger and Aggression</p> <p>Higgins Chapter 15: Sleep and Circadian Rhythms</p> <p>Higgins Chapter 16: Sex and the Brain</p>		Quiz 9 (Covers Week 13): Opens Nov 26 at 6AM and Closes Dec. 1 at 11:59PM
Thanksgiving Nov. 26 Week			
Week 14: Dec. 3	<p>Pinel Chapter 12: Cortical Localization of Language and Thinking</p> <p>Higgins Chapter 19: Intelligence</p>		Quiz 10 (Covers Week 14): Opens Dec 3 at 6AM and Closes Dec. 8 at 11:59PM
Week 15: Dec. 10	<p>Higgins Chapter 21: Depression</p> <p>Higgins Chapter 22: Anxiety</p> <p>Higgins Chapter 23:</p>		Exam II (Covers Weeks 10-15): Opens Dec. 10 at 6AM and Closed Dec. 12 at 11:59PM

	Schizophrenia		
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### ***University Policies***

**Integrity Statement:** Integrity and honesty are important personal and professional qualities. If there are data to suggest that a student has cheated and/or plagiarized or sought information from other students regarding quiz questions, exam questions, discussion boards, or any other course requirements, such behavior will result in an automatic F in the course. Additionally, one needs to understand that such dishonesty can result in dismissal from the University. If students in this class have knowledge of cheating or dishonesty among their class members, you should inform me of this immediately, so it can be investigated. Telling me after class is over that someone cheated makes it impossible to rectify the situation.

### **Student Rights and Responsibilities:**

1. To know and understand the policies that affect your right and responsibilities as a student at UT Tyler, please follow this link:  
<http://www2.uttyler.edu/wellness/rightsresponsibilities.php>
2. Grade replacement/forgiveness and census date policies. Students repeating a course
3. for grade forgiveness (grade replacement) must file a Grade Replacement Contract with the Enrollment Services Center (ADM 230) on or before the Census Date of the semester in which the course will be repeated. Grade Replacement Contracts are available in the Enrollment
4. Services Center or <http://www.uttyler.edu/registrar>. Each semester's Census Date can be found on the Contract itself, on the Academic Calendar, or in the information pamphlets published each semester by the Office of the Registrar.
5. Failure to file a Grade Replacement Contract will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates are eligible to exercise grade replacement for only three course repeats during their career at UT Tyler;
6. Graduates are eligible for two grade replacements. Full policy details are printed on each Grade Replacement Contract. The Census Date is the deadline for any forms and enrollment actions that students need to be aware of. These include:
7. Submitting Grade Replacement Contracts, Transient Forms, requests to withhold directory information, approvals for taking courses as Audit, Pass/Fail or Credit/No Credit.
8. Receiving 100% refund for partial withdrawals. (There is no refund for these after the Census Date)

9. Schedule adjustments (session changes, adding a new class, dropping without a “W” grade)
10. Being reinstated or re-enrolled in classes after being dropped for non-payment
11. Completing the process for tuition exemptions for waivers through Financial Aid.

**State-Mandated Course Drop Policy:** Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For purposes of this rule, a dropped course is any course that is dropped after the census date (See Academic Calendar for the specific date). Exceptions to the 6-drop rule may be found in the catalog. Petitions for exemptions must be submitted to the Enrollment Services Center and must be accompanied by documentation of the extenuating circumstance. Please contact the Enrollment Services Center if you have any questions.

**Disability/Accessibility Services:** In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA) the University of Tyler at Texas offers accommodations to students with learning, physical and/or psychological disabilities. If you have a disability, including non-visible a diagnosis such as a learning disorder, chronic illness, TBI, PTSD, ADHD, or you have a history of modifications or accommodations in a previous educational environment, you are encouraged to visit <https://hood.accessiblelearning.com/UTTyler> and fill out the New Student application. The Student Accessibility and Resources (SAR) office will contact you when your application has been submitted and an appointment with Cynthia Lowery, Assistant Director Student Services/ADA Coordinator. For more information, including filling out an application for services, please visit the SAR webpage at <http://www.uttyler.edu/disabilityservices>, the SAR office located in the University Center, # 3150 or call 903.566.7079.

**Student Absence due to Religious Observance:** Students who anticipate being absent from class due to a religious observance are requested to inform the instructor of such absences by the second-class meeting of the semester.

**Student Absence for University-Sponsored Events and Activities:** If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least 2 weeks prior to the date of the planned absence. At that time the instructor will set a date and time when make-up assignments will be completed.

**Social Security and FERPA Statement:** It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.

**Emergency Exits and Evacuation:** Everyone is required to exit the building when a fire alarm goes off. Follow your instructor's directions regarding the appropriate exit. If you require assistance during an evacuation, inform your instructor in the first week of class. Do not re-enter the building unless given permission by University Police, Fire department, or Fire Prevention Services.

**Student Standards of Academic Conduct:** Disciplinary proceedings may be initiated against any students who engages in scholastic dishonesty, including, but not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts.

"Cheating" includes, but is not limited to:

- Copying from another students' test paper;
- Using during a test, materials not authorized by the person giving the test;
- Failure to comply with instructions given by the person administering the test;
- Possession during a test of materials which are not authorized by the person giving the test.