

Syllabus/Course Handbook
PSYC/BIOL 3322: Brain and Behavior; Spring 2019

A. GENERAL INFORMATION

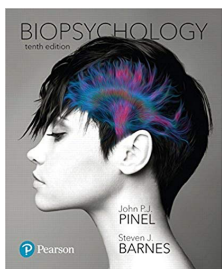
1. **Instructor:** Linda I. Perrotti, Ph.D.
2. **Office Number:** Engineering Research Building, 432
3. **Office Telephone Number:** 2-1202 (no voicemail)
4. **Email and email Policy:** I welcome you to email me if you have questions/concerns regarding this course. In an effort to ensure a more direct, effective, and efficient method of communication between the large number of students enrolled in this course and myself, I have the following email policy:
 - a. **Only email me via the course Blackboard site.**
 - b. Student emails containing questions that can be answered by reading this thoughtfully prepared syllabus will **NOT receive a response.**
 - c. Students will communicate in a professional, courteous, and formal manner when emailing the course instructor (refer to Section B15 for more information).
5. **Faculty Profile:** <https://www.uta.edu/profiles/linda-perrotti>
6. **Office Hours:** Tu / Th 10:00 - 10:45AM
7. **Section Information:** PSYC/BIOL 3322-001
8. **Time and Place of Class Meetings:** Tu / Th 11:00 AM – 12:20 PM; LS118
9. **Description of Course Content:** An introduction to the anatomical structures and physiological processes that determine behavior. The student will gain an understanding of how brain structure relates to brain function, behavior, and cognition. Topics include the acquisition and processing of sensory information, the neural control of movement, and the biological bases of complex behaviors (such as learning, memory, and sex), as well as the basic functioning of the nervous system.
10. **Student Learning Outcomes:** Instructional goals are directed toward enabling students to recognize and recall basic facts and describe major concepts and terminology in all fields of biological psychology. Instructional materials will be provided in assigned textbook readings and lecture presentations. By the end of the course, students should minimally demonstrate a basic understanding of the following:
 - List and describe the major anatomical structures of the brain and spinal cord.
 - Identify, define, and describe the structures of neurons.
 - Describe the structure and function of glial cells.
 - Describe the resting membrane potential and its ionic basis, and describe the three factors that influence the distribution of Na⁺ and K⁺ ions across the neural membrane.
 - Describe how post synaptic potentials are generated and how they are conducted.
 - Explain the ionic basis of the action potential.

- Describe the structure of the synapse in relation to synaptic transmission.
- Identify and describe anatomical parts and functions of the visual system
- Identify and describe the anatomical parts and functions of the auditory system
- Describe the major pathways that lead from the ear to the primary auditory cortex.
- Describe the neural mechanisms underlying sound localization.
- Describe the two major somatosensory pathways.
- Describe the olfactory system.
- Describe the gustatory system.
- Explain the neurological basis of movement.
- Describe the motor pathways of the spinal cord.
- Describe the development of the nervous system from neural plate to fully developed brain.
- Explain the role of the hypothalamus and pituitary in endocrine regulation.
- Describe the development of internal and external reproductive organs.
- Explain and describe the stages of sleep EEG
- Describe circadian sleep-wake cycle and role of the SCN.
- Discuss what research on medial temporal lobe amnesias has taught us about learning and memory.
- Describe the difference between semantic and episodic memories.
- Describe the role of the hippocampus in spatial memory and the other types of memory it supports.
- Compare various routes of drug administration.
- Differentiate between tolerance and sensitization
- Explain incentive salience.

Instructional materials will be provided in assigned textbook readings and lecture presentations. Assessment of mastery of these goals will be via exams with questions that focus on the above knowledge and skills.

B. SPECIFIC COURSE REQUIREMENTS

1. **Blackboard Requirements:** *The use of Blackboard is required in this course.* Occasional syllabus updates and course announcements will be communicated via Blackboard. Grades are posted on Blackboard only. Go to <http://www.uta.edu/blackboard/students/index.html> and login with your UTA Net ID and password. If you are unfamiliar with how to work within this system contact the Help Desk in the Central Library. You can also email them for assistance: helpdesk@uta.edu.



Required Textbook: Pinel and Barnes *Biopsychology*. 10th Edition. Pearson, 2018.
ISBN-13: 978-0-13-420369

This **textbook is REQUIRED** meaning that you will **need to read and study from it in order to pass this course**.

*****Note:** This is an intensive course. Students are expected to know a lot of detailed information. Be sure to complete the assigned readings both before and after attending lectures.

2. **Descriptions of major assignments and examinations:** Students will have the opportunity to take a total of five (5) exams. These will cover lectures, videos, and assigned textbook readings. **All exams will be taken in class.** Students arriving late (after the scheduled class start time), on an exam date **will**

NOT be permitted to take the exam after the first completed exam is turned in, and will receive a grade of zero (0) for that exam.

3. **Attendance:** At The University of Texas at Arlington, taking attendance is not required but attendance is a critical indicator of student success. Each faculty member is free to develop his or her own methods of evaluating students' academic performance, which includes establishing course-specific policies on attendance. As the instructor of this section, I permit students to attend class at their own discretion. However, it should be noted that **students do not do well in this course unless they are routinely present for lecture and attentive during class**. Students who miss a class meeting(s) for any reason or miss portions of classes due to tardiness or early departure are **still accountable for all of the material that is covered** during those sessions, including materials presented in lecture that are not in the book. If you miss a class, find a classmate (or two) with whom you can share resources. **Please do not email, phone, or visit the instructor to ask what materials you missed in class or to redeliver the lecture to you personally.** Material covered in class is your responsibility.

However, while UT Arlington does not require instructors to take attendance in their courses, the U.S. Department of Education requires that the University have a mechanism in place to mark when Federal Student Aid recipients "begin attendance in a course." UT Arlington instructors will report when students begin attendance in a course as part of the final grading process. Specifically, when assigning a student a grade of F, faculty report the last date a student attended their class based on evidence such as a test, participation in a class project or presentation, or an engagement online via Blackboard. This date is reported to the Department of Education for federal financial aid recipients.

4. **Examinations:** As mentioned above, students will have an opportunity to take five (5) examinations. Exams will be administered in class (dates listed at end of this syllabus in Section D). The first four (4) exams will each **cover approximately 3-4 chapters from the text and the corresponding lecture material**. The 5th is a "final exam" and will be cumulative and potentially optional.

Below is the protocol that all students will follow for taking exams in this course. Failure to comply with any of the below will result in individual consequences, and, likely, lead to delays in processing test results for the entire class. **Consistent non-compliance with this protocol will yield a five (5) point deduction from the final course grade.**

- a. Materials for exam days:
 - i. Two **General Purpose Scantron Answer Sheet form no. 4521** (Fig.1)
 - ii. Two number 2 pencils
 - iii. An eraser
 - iv. Your UT Arlington administered identification (MAV ID).
- b. Method for completing identifying information on **Scantron Answer Sheet form no. 4521**
 - i. Side 1, Box: "Name"
 1. Print your **last name in the blocks followed by a space then print your first name** in the remaining blocks.
 2. "bubble in" the letters that corresponding to the letters of your name in each column
 - ii. Side 1, Box: "Identification Number"
 1. Your entire MAVID number (one thousand number, ex 1000123456)
 - iii. **PROVIDE ONLY THE INFORMATION ABOVE IN THE SCANTRON FORM, NO MORE, NO LESS.**

c. Procedure for exam days:

- i. Desks remain clear except for MAVID, Scantron form no. 4521, and exam question sheet.
- ii. No hats or baseball caps will be worn.
- iii. Cell phones and other electronic devices will be **TURNED OFF** not silenced, put to sleep, or otherwise inactivated: **TURNED OFF**
- iv. Should the instructor or a proctor ask you to relocate from your seat to another during an exam, please do so without hesitation or fear of judgment. Students are often asked to relocate for a variety of reasons.

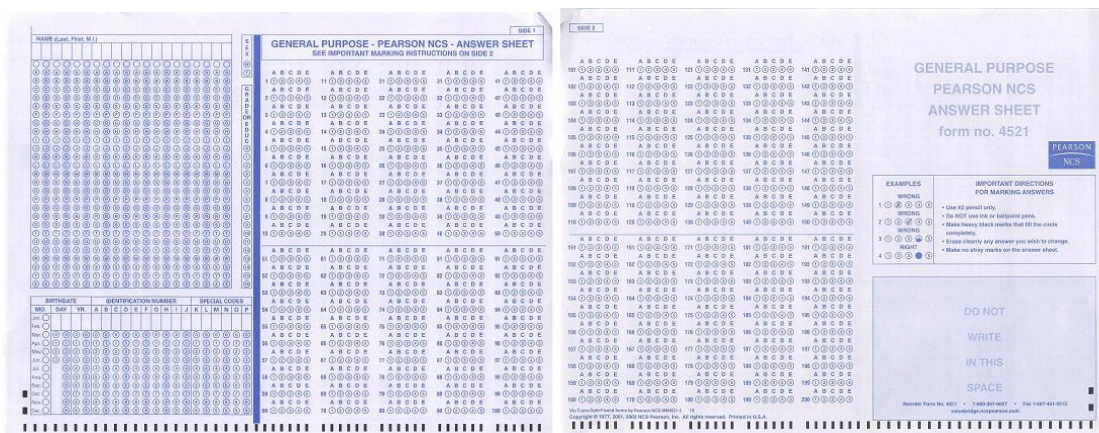


Figure 1. General Purpose Scantron Answer Sheet form no. 4521. This is the **ONLY** Scantron form that will be accepted for exams. No extra test time will be given so that a student can go and purchase one, students will not be permitted to interrupt the class during an exam and request that to borrow an extra from another student.

***Be kind to yourself, **PLAN AHEAD**, and reduce unnecessary stress: Purchase at least 8-10 General Purpose Scantron Answer Sheets (form no. 4521) in advance (perhaps, even today - link to purchase at campus book store: <https://arlington.campusbookstores.net/products/scantron-4521-scan-5802-ipmejiijyqk>; or Amazon: <https://tinyurl.com/y9fpaa5n>). Should a student(s) neglect to bring the requisite to an exam, time will not be provided to leave the classroom to obtain the missing materials.

5. Grading Format, Weighting/Point Value of Assignments, and Examinations: The final course grade will be based on the **average of a student's highest 4 (out of 5) exam grades.**

- a. The grade for each exam will be the % correct of exam questions. The minimum points for a letter grade are (A=89.5, B= 79.5, C=69.5, D= 59.5, and F= 59.4 and below). The final course grade will be the **mean (arithmetic average) of the four (4) highest exam grades.** The minimum percentage for a letter grade is depicted above. All exams are of equal weight (25%). Rounding will be applied only for the calculation of the course grade: This will consist of raising a decimal fraction of 0.5 or greater to the next whole number. For example, a course grade of 79.5 will be rounded to 80 for a course letter grade of B. A course grade of 79.4 will not be rounded and will yield a course grade of C. This grading policy is not flexible under any circumstances. No consideration for special circumstances will be given. The numbers will dictate the grade.

6. Expectations for Out-of-Class Study: A general rule of thumb is this: for every single (1) credit hour earned, a student should spend 3 (three) hours per week working outside of class. Hence, a 3-credit course has a minimum expectation of 9 (nine) hours of reading, study, etc. In other words, **beyond the time**

required to attend each class meeting, students enrolled in this course should expect to spend **A MINIMUM OF 9-12 additional hours per week of their own time in course-related activities**, including reading and understanding the required materials and preparing for exams.

7. **Borderline Grades:** Firstly, it is important to note that grades, and the points that constitute them, are *earned* and **not** awarded, gifted, or otherwise given, to students on behalf of the course instructor. Every semester some students will inevitably score *just* below the borderline of the next highest grade. I have great sympathy for people who find themselves in that position, but I have also found that raising those grades simply uncovers more people whose grades are near the new borderline. This situation makes everybody edgy. Therefore, the policy must be that **borderline grades stay borderline**.
8. **Make-up Exams:** Makeup exam requests will be approved only when appropriate documentation is provided that indicates compelling circumstances prohibited a student from taking a scheduled exam (<http://catalog.uta.edu/academicregulations/studentresponsibility/#attendancetext>). No information should be provided in a makeup exam request that is private or confidential in nature. A note from a friend or family member is not acceptable documentation. A request for a makeup exam must be made **in writing within three days of the missed exam**. If a student should obtain **instructor approval** for a makeup exam, **ALL makeup exams will be taken in room LS118 on Thursday, April 25th from 11:00AM-12:20PM**. The format of the makeup exams is at the discretion of the instructor (i.e. make up exams might not be multiple choice). There will be NO opportunity to make-up a makeup exam.
9. **Drop Policy:** Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance**. Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (<http://www.uta.edu/ses/fao>).
10. **Disabilities Accommodations:** UT Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including *The Americans with Disabilities Act (ADA)*, *The Americans with Disabilities Amendments Act (ADAAA)*, and *Section 504 of the Rehabilitation Act*. All instructors at UT Arlington are required by law to provide “reasonable accommodations” to students with disabilities, so as not to discriminate on the basis of disability. Students are responsible for providing the instructor with official notification in the form of a letter certified by the **Office for Students with Disabilities (OSD)**. Only those students who have officially documented a need for an accommodation will have their request honored. Students experiencing a range of conditions (Physical, Learning, Chronic Health, Mental Health, and Sensory) that may cause diminished academic performance or other barriers to learning may seek services and/or accommodations by contacting: **The Office for Students with Disabilities, (OSD)** <http://www.uta.edu/disability/> or calling 817-272-3364. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability.
11. **Counseling and Psychological Services, (CAPS)** www.uta.edu/caps/ or calling 817-272-3671 is also available to all students to help increase their understanding of personal issues, address mental and behavioral health problems and make positive changes in their lives.

12. Non-Discrimination Policy: The University of Texas at Arlington does not discriminate on the basis of race, color, national origin, religion, age, gender, sexual orientation, disabilities, genetic information, and/or veteran status in its educational programs or activities it operates. For more information, visit uta.edu/eos.

13. Title IX Policy: The University of Texas at Arlington ("University") is committed to maintaining a learning and working environment that is free from discrimination based on sex in accordance with Title IX of the Higher Education Amendments of 1972 (Title IX), which prohibits discrimination on the basis of sex in educational programs or activities; Title VII of the Civil Rights Act of 1964 (Title VII), which prohibits sex discrimination in employment; and the Campus Sexual Violence Elimination Act (SaVE Act). Sexual misconduct is a form of sex discrimination and will not be tolerated. *For information regarding Title IX, visit www.uta.edu/titleIX or contact Ms. Jean Hood, Vice President and Title IX Coordinator at (817) 272-7091 or jmhood@uta.edu.*

14. Academic Integrity: All students enrolled in this course will adhere to the UT Arlington Honor Code:

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.

I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

UT Arlington faculty members may employ the Honor Code in their courses by having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System *Regents' Rule* 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University. Additional information is available at <https://www.uta.edu/conduct/>. Faculty are encouraged to discuss plagiarism and share the following library tutorials <http://libguides.uta.edu/copyright/plagiarism> and <http://library.uta.edu/plagiarism/>

***** In addition to the University's sanctions, *any student(s) caught participating in any form of academic dishonesty in PSYC/BIOL 3322-001, will receive a final course grade of "F". That is, students caught cheating in this course will fail the course.* *****

15. Electronic Communication: E-Mail Communications. When communicating with faculty members and other professionals, you are expected to communicate in a professional and formal manner. This includes addressing your audience using their proper title, using proper grammar, and using proper spelling. Indeed, ***how you deliver your message is often as important as the message itself***. Thus, I expect you to ***communicate professionally*** when e-mailing me (and to use your grammar and spell-check functions before you send me an e-mail).

UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. **All students are assigned a MavMail account and are responsible for checking the inbox regularly.** There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at

<http://www.uta.edu/oit/cs/email/mavmail.php>. Important e-mails regarding this course will be sent to you via Blackboard so you will need to check your UT Arlington e-mail account regularly.

- 16. Student Feedback Survey:** At the end of each term, students enrolled in face-to-face and online classes categorized as “lecture,” “seminar,” or “laboratory” are directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student’s feedback via the SFS database is aggregated with that of other students enrolled in the course. Students’ anonymity will be protected to the extent that the law allows. UT Arlington’s effort to solicit, gather, tabulate, and publish student feedback is required by state law and aggregate results are posted online. Data from SFS is also used for faculty and program evaluations. For more information, visit <http://www.uta.edu/sfs>.
- 17. Final Review Week:** A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week (aka Dead Week). The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week unless specified in the class syllabus. During Final Review Week, an instructor shall not give any exams constituting 10% or more of the final grade, except makeup tests and laboratory exams. In addition, no instructor shall give any portion of the final exam. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; new concepts may be introduced.
- 18. Campus Carry:** Effective August 1, 2016, the Campus Carry law (Senate Bill 11) allows those licensed individuals to carry a concealed handgun in buildings on public university campuses, except in locations the University establishes as prohibited. Under the new law, openly carrying handguns is not allowed on college campuses. For more information, visit <http://www.uta.edu/news/info/campus-carry/>
- 19. Emergency Exit Procedures:** Should we experience an emergency event that requires us to vacate the building; students should exit the room and move toward the nearest exit. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist handicapped individuals.
- 20. Active Shooter:** The safety and security of our campus is the responsibility of everyone in our community. Each of us has an obligation to be prepared to appropriately respond to threats to our campus, such as an active aggressor. Please review the information provided by UTA Police regarding the options and strategies we can all use to stay safe during difficult situations. <https://police.uta.edu/activeshooter>

C. STUDY TIPS/STUDENT SUPPORT ETC.

- 1. Student Support Services:** UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include [tutoring](#), [major-based learning centers](#), developmental education, [advising and mentoring](#), personal counseling, and [federally funded programs](#). For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call

the Maverick Resource Hotline at 817-272-6107, send a message to resources@uta.edu, or view the information at <http://www.uta.edu/studentsuccess/success-programs/programs/resource-hotline.php>

2. **The IDEAS Center** (2nd Floor of Central Library) offers **FREE tutoring** to all students with a focus on transfer students, sophomores, veterans and others undergoing a transition to UT Arlington. Students can drop in, or check the schedule of available peer tutors at www.uta.edu/IDEAS, or call (817) 272-6593.
3. The Library's 2nd floor Academic Plaza offers students a central hub of support services, including IDEAS Center, University Advising Services, Transfer UTA and various college/school advising hours. Services are available during the library's hours of operation. <http://library.uta.edu/academic-plaza>
4. **Study skills/tips:** Each semester students approach me for advice on how to study. For students truly interested in doing well in this course (and other courses), I strongly recommend 1) use of the pedagogical aids located throughout the text and publisher's website; 2) visiting the websites listed below for advice to guide reading, studying and note taking; 3) the SQ4R (Study; Question, Read, Recite, Relate) method.
 - a. <http://www.dartmouth.edu/~acskills/success/notes.html>
 - b. <http://www.studygs.net/marking.htm>
 - c. Take notes (Cornell notes)
 - d. The most effective strategies for learners is quizzing oneself. When you read a text or study lecture notes, pause periodically to ask yourself questions such as the following without looking in the text:
 - What are the key ideas?
 - What terms or ideas are new to me?
 - How would I define them?
 - How do the ideas relate to what I already know?
 - e. Generating questions for yourself and writing down the answers is also a good way to study. When you **quiz yourself**, check your answers to make sure that your judgments of what you know and don't know are accurate.

*****Re-reading is NOT studying. Going over your notes is NOT studying. *****

Survey, Question, Read, Recite, Relate, Review (SQ4R) = STUDYING.

When you actively quiz yourself, you practice retrieving new learning from memory. This is how you prepare for an exam. This is how you learn something. This is how you KNOW that you know.

"Any fool can know. The point is to understand."

— Albert Einstein

Emergency Phone Numbers: In case of an on-campus emergency, call the UT Arlington Police Department at **817-272-3003** (non-campus phone), **2-3003** (campus phone). You may also dial 911. Non-emergency number 817-272-3381

D. COURSE SCHEDULE

DATE	TOPICS
Jan 15	Introduction to the course
Jan 17	Chapter 3: Nervous System Anatomy
Jan 22	Chapter 3: Nervous System Anatomy
Jan 24	Chapter 4: Neural Conduction and Synaptic Transmission
Jan 29	Chapter 4: Neural Conduction and Synaptic Transmission
Jan 31	Chapter 5: Neuroscience research methods
Feb 05	Exam 1
Feb 07	Chapter 6: The Visual System
Feb 12	Chapter 6: The Visual System
Feb 14	Chapter 7: Hearing, Touch Smell, Taste, and Attention.
Feb 19	Chapter 7: Hearing, Touch Smell, Taste, and Attention.
Feb 21	Chapter 8: Sensorimotor System
Feb 26	Chapter 8: Sensorimotor System
Feb 28	Exam 2
Mar 05	Chapter 9: Neurodevelopment
Mar 07	Chapter 9: Neurodevelopment
Mar 12	SPRING BREAK
Mar 14	
Mar 19	Chapter 10: Brain Damage and Neuroplasticity.
Mar 21	Chapter 10: Brain Damage and Neuroplasticity.
Mar 26	Chapter 11: Learning and Memory
Mar 28	Chapter 11: Learning and Memory
Apr 02	Exam 3
Apr 04	Chapter 12: Feeding
Apr 09	Chapter 12: Feeding
Apr 11	Chapter 13: Hormones & Sex
Apr 16	Chapter 13: Hormones & Sex
Apr 18	Chapter 14: Sleep
Apr 23	Chapter 15: Addiction and Reward
Apr 25	Chapter 15: Addiction and Reward
Apr 30	Exam 4
May 02	Last Day of Class
May 07	11:00 – 1:30PM Optional Final Exam – Cumulative

**As the instructor for this course, I reserve the right to adjust this schedule in any way that serves the educational needs of the students enrolled in this course. –Linda I. Perrotti*