

Behavioral Neuroscience
PSY 3711 Section 01 CRN 24263
Spring 2010

Instructor: Dannelle Larsen-Rife, Ph.D.

Office: 219 McDonald Ctr. Phone: (435)652-7823

e-mail: dlarsenrife@dixie.edu

Office Hours: Monday, Wednesday and Friday 1:00 pm to 2:00 pm, Tuesday and Thursday 11: 45 am to 12:45 pm

Lecture: Tuesday and Thursday, 4:00 to 5:15 pm, McDonald 106

Course Description: Introduction to how the structure and function of the brain and the nervous system relate to specific psychological processes and overt behaviors including cognitive functions, sensory and motor systems, emotions, regulatory behaviors, reproductive behaviors, and psychopathology.

Prerequisites: PSY 1010, BIOL 1020 or BIOL 1620. PSY 3000 and PSY 3010 recommended.

Required Text: Kolb, B. & Whishaw, I. Q (2009). Introduction to Brain and Behavior (3rd Edition). NY: Worth Publishers. ISBN: 978 0 7167 7691 8. Available at the Dixie State College Book Store and through on-line retailers.

Recommended Text: American Psychological Association (APA). *The Publication Manual of the American Psychological Association* (2009). 6th ed. Washington, DC: American Psychological Association. Available for use at the Dixie State College library.

Philosophy/Expectations: This course will operate on the philosophy that active engagement with material fosters quality learning. There will be ample opportunity for in-class discussion, both in small groups and with the entire class. Students are expected to read assigned text prior to class and be prepared to participate in class to maximize the learning experience. The provided course calendar indicates when topics will be covered; however, please allow for some flexibility in the schedule.

There is no attendance policy for this course, other than for administrative purposes. However, absences may result in lost learning opportunities, including possible extra credit opportunities.

Social Science Program Objectives:

As an outcome of taking courses in the Social Science program, students shall:

1. Demonstrate the ability to examine human behaviors in a structured and organized way as a means of understanding the human condition. Measured by examination and/or oral and written reports.
2. Demonstrate the ability to recognize the ideas, people and events that are generally thought to be important by social scientists. Measured by examination and/or oral or written reports.
3. Develop a perceptual frame of reference based on social scientific knowledge. Measured by the presence of an attitudinal frame of reference which would be expressed in written or oral activities.
4. Exhibit concepts of critical thinking and scientific methodology in examining human behavior. Measured by the presence of an attitudinal frame of reference which would be displayed in written or oral activities.

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Course Objectives & Outcomes: The primary objective of this course is to provide an introduction to behavioral neuroscience and its methodology. By the end of this course, students should be able to:

1. Demonstrate knowledge of neurons and the nervous system.
2. Demonstrate knowledge of neuroscience methodology.
3. Demonstrate knowledge of development of the nervous system.
4. Demonstrate knowledge of functions of the nervous system.
5. Demonstrate knowledge of the brain and behavioral disorders.

Paper: There will be an eight (8) page paper worth 100 points. Because students have different objectives in pursuing upper division courses in psychology, you will have the option of choosing between two equally rigorous paper assignments as described below. All papers will be required to adhere to the American Psychological Association Publication Manual. No late papers will be accepted under any circumstance.

Option 1: For students interested in pursuing an academic/research career in psychology, you will design a research study examining a topic in behavioral neuroscience. Your paper should follow the guidelines for a research manuscript as outlined in the APA Publication Manual. You will select a topic of interest, review relevant literature (between 5 and 10 research articles published in a peer-reviewed journal), develop a hypothesis, methods section, report anticipated results, and present a discussion.

Option 2: For students interested in pursuing an applied career in psychology, you will develop a case study of a presenting behavioral disorder, including a thorough assessment of the client, substantiated diagnosis, a treatment plan, and an anticipated short-term (6 months) and long-term evaluation (1 to 3 years). You will be required to use between 5 and 10 scholarly sources for your case study, including a diagnostic manual and a minimum of three research articles published in a peer-reviewed journal.

Each of the papers will be submitted in five parts:

Assignment	Option 1	Option 2	Date
Part 1	Literature review and hypothesis	Assessment	28 Jan 10
Part 2	Methods section	Diagnosis	16 Feb 10
Part 3	Results section	Treatment plan	4 Mar 10
Part 4	Discussion section	Short- and long-term evaluation	30 Mar 10
Part 5	Final paper due: Title page Abstract References, etc.	Final paper due	22 Apr 10

Examinations: There will be 4 exams throughout the course. Your lowest exam grade will be dropped from the calculation of your final grade. Mid-semester exams will be administered in the Testing Center (you will be required to present your student ID to take the exam) between the

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hours of 9:00 am and 9:00 pm Monday through Friday and 4:00 pm to 9:00 pm Saturday and Sunday over a three-day period. Please see the Testing Center Website for further information and to verify hours of operation. The final exam will be in class on Thursday, 29 April 2010. No early or make-up exams will be permitted for any of the exams under any circumstance.

The exams will consist of multiple choice, true/false and matching items from the material presented prior to the examination.

	Date(s)	Location	Points
Exam 1:	5 – 7 February 2010	Testing Center	100 points
Exam 2:	2 – 4 March 2010	Testing Center	100 points
Exam 3:	8 – 10 April 2010	Testing Center	100 points
Exam 4:	29 April 2010	In class	100 points

Grading: The exams are each worth one-quarter of your total grade (300 points total) and the paper is worth one-quarter of your total grade (100 points). You may receive up to 25 extra credit points (for a maximum total of 400 points for the course) for taking advantage of extra credit opportunities presented randomly during the course.

<u>Grade</u>	<u>Points</u>	<u>Grade</u>	<u>Points</u>
A	372-400	C	292-307
A-	360-371	C-	280-291
B+	348-359	D+	268-279
B	332-347	D	252-267
B-	320-331	D-	240-251
C+	308-319	F	239 or below

Academic Honesty: As stated in the DSC Student Handbook; “Academic dishonesty in any form will not be tolerated at Dixie State College (Academic Discipline Policy, 3.34)” including cheating, and plagiarism. These acts of academic dishonesty are strictly prohibited.

Please carefully review the APA Publication Manual section on plagiarism to avoid unintentional plagiarism. Another helpful resource is: www.Plagiarism.org

Disruptive Behavior Policy: If your conduct in class affects the learning atmosphere of the class, the instructor reserves the right to drop you from the class. This will happen using the following procedure:

- Verbal warning that your behavior is negatively affecting the class
- Written warning that you are negatively affecting the class

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Removal from the class. The instructor will inform the student in writing of this, along with contact information for a supervisor of the instructor so the student can appeal if desired.

Policy for Absences Related to College Functions: For students, such as student athletes, who travel as official representatives of the college, absences due to college functions will not negatively affect the student's grade. The student is required to provide the instructor with a schedule of days that will be missed, will be required to negotiate any scheduled work ahead of time with the instructor.

Projected Course Calendar

Date	Course Topic/Assignment	Important Notices
11 Jan 10	N/A	Coursework begins
12 Jan 10	Introduction (text pp. 2 -13)	
13 Jan 10	N/A	Last Day to Add Without a Signature
14 Jan 10	Library orientation	
18 Jan 10		Martin Luther King Day
19 Jan 10	Evolution of brain and behavior (text pp. 13 - 29)	Drop fee begins (\$10 per class)
21 Jan 10	Brain function and structure (text pp. 32 – 44)	
26 Jan 10	Evolutionary development of the nervous system and the Central Nervous System (text pp 45 – 55) The somatic nervous system, autonomic nervous system and principles of functioning (text pp. 56 – 67)	\$50 Late Registration/Payment Fee
28 Jan 10	Part 1 of paper due; Cells (text 70 – 82)	
2 Feb 10	Internal structure of a cell (text 82 – 91) Genes, cells and behavior (text pp. 92 – 101)	Pell Grant Census; Last Day for Refund; Last Day to Drop without receiving a “W” grade
3 Feb 10	N/A	Courses dropped for non-payment
4 Feb 10	Neuronal transmission (text pp. 104 – 123) Neuronal integration (text pp. 123 -131)	
5-7 Feb 10	Exam 1 in Testing Center	Last Day to Add Classes
9 Feb 10	Neuronal communication (text 134 – 151)	
11 Feb 10	Neurotransmitter systems (text 151 – 165)	
15 Feb 10		President's Day
16 Feb 10	Part 2 of paper due; Research methods (text pp. 170 – 184)	
18 Feb 10	Research methods (text pp. 184 – 196)	
22 Feb 10	N/A	Mid-Term Grades Due

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23 Feb 10	Brain development (text pp. 200 – 220)	
25 Feb 10	Brain development (text pp. 220 – 234)	
2-4 Mar 10	Exam 2 in Testing Center	
4 Mar 10	Part 3 of paper due; Drugs (text pp. 238 – 256)	
5 Mar 10	N/A	Last Day to Drop/Audit Classes
8-12 Mar 10		Spring Break
16 Mar 10	Drugs and hormones (text pp. 256 – 276)	
18 Mar 10	Sensation and perception (review text pp. 280 – 297; read – 311 - 314); Audition and the auditory system (review text pp. 318 – 335; read pp. 335 - 350)	
23 Mar 10	Movement (text pp. 354 – 371)	
25 Mar 10	Movement (text pp. 371 – 392)	
30 Mar 10	Part 4 of paper due; Behavior (text pp. 396 – 421)	
1 Apr 10	Behavior (text pp. 421 – 440)	
2 April 10	N/A	Last Day for Complete Withdrawal
6 Apr 10	Sleep and dreaming (review text pp. 444 – 452; read pp. 452 – 456 and 461 – 472)	
8 -10 Apr 10	Exam 3 in Testing Center	
13 Apr 10	Learning and memory (review text pp. 482 – 490; read pp. 490 – 513)	
15 Apr 10	Thought (text pp. 521 – 537)	
20 Apr 10	Thought (text pp. 537 – 558)	
22 Apr 10	Part 5 of paper due; Brain and behavioral disorders (text pp. 562 – 577)	
27 Apr 10	Brain and behavioral disorders (text pp. 577 – 599)	
29 Apr 10	Exam 4 (Final Exam)	Coursework ends
30 Apr-6 May 10		Final Exams

Student Support Services:

If you are a student with a medical, psychological or a learning difference and requesting reasonable academic accommodations due to this disability, you must provide an official request of accommodation to your professor(s) from the Disability Resource Center **within the first two weeks** of the beginning of classes. Students are to contact the center on the main campus to follow through with, and receive assistance in the documentation process to determine the appropriate accommodations related to their disability. You may call **(435) 652-7516** for an appointment and further information regarding the Americans with Disabilities Act (ADA) of 1990 per Section 504 of the Rehabilitation Act of 1973. The office is located in the **Student Services Center, Room #201 of the Edith Whitehead Building.**

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Library: For information concerning the library and hours of operation go to <http://library.dixie.edu/>.

Computer Lab: The Computer Lab is located in the Smith Computer Center. For more information go to <http://new.dixie.edu/cit/cis/>.

Writing Center: The Writing Center is located on the first floor of the Browning Learning Resource Center if you need assistance with a written assignment in any class. For more information go to http://new.dixie.edu/english/dsc_writing_center.php.

Testing Center: The Testing Center is located on the First floor of the Career/Financial Aid Building. For more information go to <http://new.dixie.edu/testing/>.

Tutoring Center: The Tutoring Center is located on the first floor of the Browning Learning Resource Center. For more information go to <http://dsc.dixie.edu/tutoring/index.htm>.

DMail:

We wanted to notify you that we have transitioned your email account on rebelmail.dixie.edu to dmail.dixie.edu. This new system, powered by Google, will provide Gmail to our school, as well as a suite of other Google products that will enable our organization to better communicate, share, and collaborate.

What do I need to do? Nothing. Your old email address will continue to work, but all messages will be delivered to your NEW dmail account at <http://dmail.dixie.edu>. You will still have access to your old messages and address book on the rebelmail server at <http://rebelmail.dixie.edu>.

What will I get?

- Gigabytes of email storage. No more worries about having to delete mail.
- Instant messaging from right within your mailbox & free PC-to-PC voice calls.
- Google Calendar to schedule meetings, create events, and share calendars with others.
- Google Docs to create and share documents, spreadsheets and presentations online.
- Your own personalized Start Page, where you can access all these services.
- Access to your information from anywhere with an internet connection. You can also access your email with a mobile device.

We hope you enjoy your new Google Apps email account!

Syllabus information can be found at: <http://new.dixie.edu/reg/faculty/?page=Syllabus>