Course Syllabus
Psychology 216
Behavioral Neuroscience
Larry Wichlinski
Winter Term, 2018

Office: Olin 123, Ext. 4377, e-mail: LWICHLIN

Office Hours: Tuesday 11-12
Fri. 1-2 p.m.

New York: Pearson.

Introduction

Welcome neuroscientists! You’re about to enter one of the most fascinating areas of psychology, the field of biological psychology, also referred to as behavioral neuroscience.

The major goals of this course are to understand: (1) how the nervous system is organized (2) how it develops (3) how it functions (4) how it relates to other relevant physiological systems (5) how events in the nervous system give rise to behavior (6) how behavioral and environmental experiences affect the nervous system and related physiological systems, and (7) how nervous system dysfunction gives rise to mental illness and neurological disorders.

You should be aware that this is a challenging, information-dense course. You'll learn a tremendous amount of material in the weeks to come. The reading can be difficult and intense, so this is not the type of course where you can get behind and expect to catch-up in time for the exams. Also, your appreciation of the lectures will be significantly enhanced if you do the reading assigned for that day by class time. The moral of the story is DON’T GET BEHIND.

Exams & Quizzes

There will be two quizzes and three exams in this course. Quizzes will consist of multiple choice and short answer questions. The format of the exams will be a combination of matching, multiple choice, short answer, and essay. The final exam will not be comprehensive; it will cover only the last one-third of the course. Exam questions will derive largely from the study guides, which I will pass out from time to time. You may self-schedule the final exam.
If you want to self-schedule the final exam, please let me know via email by Monday, March 5th.

Make-up exams and quizzes will be given only in cases of personal illness or family emergency.

Special Needs

Please let me know if you have special needs. I will work with you to accommodate your needs.

Class Project

Every one will have to do a group project. I will post a list of potential topics and you may sign up for a topic of your choice. The minimum number of people in each group will be two, with a maximum of four. If more than four people wish to do the same project, I will break up the group into two smaller groups. You may choose the format for your project: paper, website, film, blog, etc. I will give you a more detailed set of criteria for the project soon.

Grades

The breakdown for each component of the course is as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>1st quiz</td>
<td>10%</td>
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<tr>
<td>2nd quiz</td>
<td>10%</td>
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<tr>
<td>Class Project</td>
<td>15%</td>
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<tr>
<td>1st exam</td>
<td>20%</td>
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<tr>
<td>2nd exam</td>
<td>20%</td>
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<tr>
<td>Final Exam</td>
<td>20%</td>
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<tr>
<td>Discretionary Points</td>
<td>5% (applied to your best course component)</td>
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You may take an exam early if a college activity requires that you leave campus on the day the exam is scheduled. Please make arrangements with me at least a week before you want to take it.

E-tiquette

Please turn off your cell phones during class. Also, I don’t mind people using computers during class, as long as it’s for taking notes and classroom-related
activities. If you are someone who can’t avoid checking their phone periodically, please sit in the back of the class.

**Miscellaneous**

I will try to stick as close to the syllabus as I possibly can. However, I may alter the amount of time we spend on any individual topic.

Should you need to see me, please do not hesitate to stop by during my office hours, or at some other time if my office hours are not convenient for you. Just make an appointment with me.

If you have a question or a problem, send me e-mail or call my office extension. Our course prefect, Katherine, will also hold review sessions.

I do not generally answer e-mail on weekends. But I will respond to your e-mail as soon as I can.

I believe that this is a course whose investment in time and energy has great long-term payoff. Have a great term!

*Please have all assigned readings done by the time you get to class.*

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Topic and Assignment</th>
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<tbody>
<tr>
<td>Jan. 3rd</td>
<td>Wed.</td>
<td><strong>Course Overview</strong></td>
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<tr>
<td>Jan. 5th</td>
<td>Fri.</td>
<td><strong>Introduction and Structure of the Nervous System</strong></td>
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<td></td>
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<td>Carlson &amp; Birkett, Chapters 1 &amp; 3</td>
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<td>Jan. 8th</td>
<td>Mon.</td>
<td><strong>Structure and Functions of Nerve Cells: Anatomy</strong></td>
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<td>C &amp; B, Chapter 2, pp. 22-33.</td>
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<tr>
<td>Jan. 10th</td>
<td>Wed.</td>
<td><strong>Structure and Functions of Nerve Cells: Physiology</strong></td>
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<td>C &amp; B, Chapter 2, pp. 33-45.</td>
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<td>Jan. 12th</td>
<td>Fri.</td>
<td><strong>Structure and Functions of Nerve Cells: Synaptic</strong></td>
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<td>Transmission C &amp; B, Chapter 2, pp. 45-55.</td>
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<td>Jan. 15th</td>
<td>Mon.</td>
<td><strong>Chemicals of the Nervous System I</strong></td>
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<td>C &amp; B, Chapter 4, pp. 100-117.</td>
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<td><em>Martin Luther King, Jr. Day</em></td>
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<tr>
<td>Jan. 17th</td>
<td>Wed.</td>
<td><strong>First Quiz (at beginning of class)</strong></td>
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<td><em>(assigned reading on</em></td>
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Chemicals of the Nervous System II
C & B, Chapter 4, pp. 89-99.

Jan. 19th   Fri.   Brain Development & Neural Plasticity
C & B, Chapter 3, pp. 64-69; Chapter 15, pp. 496-499;
Chapter 17, pp. 578-587

Jan. 22nd  Mon.   Methods of Behavioral Neuroscience
C & B, Chapter 5

Jan. 24th  Wed.   First Exam

Jan. 26th  Fri.   Vision I
C & B, Vision, Chapter 6

Jan. 29th  Mon.   Vision II; Motor Control I: Control of Movement
C & B, Chapter 8

Jan. 31st  Wed.   Motor Control II: Movement Disorders
C & B, Chapter 15, pp. 500-518
Reserve Reading: Sacks, “A Surgeon’s Life”

Feb. 2nd  Fri.   Ingestive Behaviors: Eating
C & B, Chapter 12, pp. 367-391
Groundhog Day

Feb. 5th  Mon.   NO CLASS – MIDTERM BREAK

Feb. 7th  Wed.   Eating Disorders
C & B, Chapter 12, pp. 392-404

Feb. 9th  Fri.   Sleep I: Basic Processes
C & B, Chapter 9, pp. 262-283

Feb. 12th  Mon.   Sleep II: Sleep Disorders
C & B, Chapter 9, pp. 284-295.
Lincoln’s Birthday

CAUTION: ADULT CONTENT AHEAD

Feb. 14th  Wed.   First Quiz
Sexual & Reproductive Behavior I
C & B Chapter 10, pp. 297-318
Valentine’s Day
Ash Wednesday

Feb. 16th  Fri.   Sexual & Reproductive Behavior II
Feb. 19th Mon. Pleasure and Reward
C & B, Chapter 13, pp. 413-420; + Chapter 18 (all of it)
Presidents’ Day
Family Day (Canada)

Feb. 21st Wed. Second Exam

Feb. 23rd Fri. Pain and Punishment
C & B, Chapter 7, pp. 209-220
Reserve Reading: Doidge (2007)

Feb. 26th Mon. Emotion I
C & B, Chapter 11

Feb. 28th Wed. Emotion II: Disorders of Emotion
C & B, Chapter 16, pp. 570-582; Chapter 17, pp. 554-575

Mar. 2nd Fri. Learning & Memory I: Basic Mechanisms
C & B, Chapter 13, pp. 406-424

Mar. 5th Mon. NO CLASS OR LAB – WORK ON PROJECTS

Mar. 6th Tues. Projects Due by 4:30 p.m. in Psych Office
NO LAB TODAY

Mar. 7th Wed. Learning & Memory II: Relational Learning

Mar. 9th Fri. Wrap-up Day

Mar. 13th TUES. FINAL EXAM 8:30 to 11:00 a.m.
OR SELF-SCHEDULED

Reserve Readings

In: The Brain That Changes Itself. New York: Viking Press,
pp. 177-195.

Vintage Books.