Course Syllabus
Psychology 267
Clinical Neuroscience
Larry Wichlinski
Spring Term, 2016

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

Office Hours:  Tuesday 1-3 p.m.
               Wed.  4a; Fri. 4a
               and by appointment


Introduction
Welcome to Clinical Neuroscience!  In this course we will examine the biological
dimensions of disorders of the mind and brain.  The goal is to gain a better
understanding of the role that biological factors play when our brains and minds
go awry.  The format of this class will be a combination of lecture and discussion.
The class is organized by brain disorder, but some themes recur throughout the
course, as you will see.  The bulk of the reading assignments are journal articles,
most of them quite recently published.  In addition, we will read selective
websites and a contemporary book, Ghost Boy.

Please have the assigned readings done by the time you get to class, if at all
possible.  Also, please have some form of the articles available during class time.

Most of the journal articles are available via the Web of Knowledge through the
library’s website.  The few that are not available will be put on e-reserve for this
course.  I’ll let you know which articles fall in this category.

I may add readings and/or substitute readings as this course unfolds.  I will do
my best to let you know of any changes in a timely fashion.

Exams & Quizzes
There will be two quizzes and two exams in this course.  Quizzes will consist of
multiple choice and short answer questions.  The exams will be open book take-
home tests consisting of a small number of open-ended integrative questions that
will require you to summarize across a wide range of articles.

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 those needs.

**Class Project**

Everyone will be required to do an individual class project. Your task will be to research the neurobiology of a disorder that we have NOT covered in this course. You will generate an annotated bibliography of 10-15 articles that were published in the last three years. I will give you a separate handout for that assignment.

**Grades**

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

- 1st quiz: 10%
- 2nd quiz: 10%
- Class Project: 20%
- Midterm Exam: 25%
- Final Exam: 25%
- Class Participation: 10%

You may take a quiz 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, unless you’re using them to access assigned readings. Also, I don’t mind people using computers during class, as long as it’s for taking notes and classroom-related activities. (Facebook and Instagram do not count as classroom activities).

**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.
I do not generally answer e-mail on weekends. I will respond to your e-mail as soon as I can when I get back to my office on Monday.

I believe that this is one course whose investment in time and energy has great long-term payoff. I hope you do, too. Have a great term!

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<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Topic and Assignment</th>
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<tbody>
<tr>
<td>Mar. 28th Mon.</td>
<td>Introduction &amp; Overview</td>
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<td><em>Easter Monday</em></td>
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<td>Mar. 30th Wed.</td>
<td>Foundations of Neuroscience I: Brain Structures</td>
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<td><strong>Assignment</strong>: Bryn Mawr website (URL in reference section)</td>
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<td>April 1st Fri.</td>
<td>Foundations II: Neurons &amp; Glia</td>
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<td><strong>Assignment</strong>: University of Bristol website links (URLs in reference section) <em>April Fool’s Day</em></td>
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<td>April 4th Mon.</td>
<td>Foundations III: Electrical Potentials</td>
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<td><strong>Assignment</strong>: Lovinger (NIAAA website)</td>
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<td>April 6th Wed.</td>
<td>Foundations IV: Synaptic Transmission</td>
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<td><strong>Assignment</strong>: TBA</td>
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<td>April 8th Fri.</td>
<td>Foundations V: Chemicals of the Nervous System</td>
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<td><strong>Assignment</strong>: TBA</td>
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<td>April 11th Mon.</td>
<td>Schizophrenia</td>
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<td><strong>Assignment</strong>: Bakhshi &amp; Chance (2015); Leza et al (2015); NIMH website on schizophrenia</td>
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<td>April 13th Wed.</td>
<td>Mood Disorders I: Bipolar Disorder</td>
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<td><strong>Assignment</strong>: Marangoni et al (2016); Muneer (2016); Proudfoot et al (2012)</td>
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<td>April 15th Fri.</td>
<td>Mood Disorders II: Anatomy of Depression</td>
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<td><strong>Assignment</strong>: Hamani et al (2011); Li et al (2013); Pandya et al (2012)</td>
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<td>April 18th Mon.</td>
<td><strong>QUIZ</strong> Mood Disorders III: Biology of Depression</td>
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<td><strong>Assignment</strong>: Huang et al, (2014); Lopizzo et al (2015); Sibille &amp; French (2013)</td>
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*Taxes Due*
April 20th  Wed.  Mood Disorders IV: SAD  
**Assignment:** Praschak-Rieder & Willeit (2012); Carlson et al (2013)

April 22nd  Fri.  Mood Disorders V: Treatment  
**Assignment:** Galvez et al (2015); Meron et al (2015)  
*Earth Day; Passover begins at sundown*

April 25th  Mon.  Anxiety Disorders I: GAD  
**Assignment:** Huh et al (2011); NIMH website on GAD

April 27th  Wed.  Anxiety Disorders II: Panic Disorder  
**Assignment:** Montoya et al (2016); Shin et al (2013)

April 29th  Fri.  Trauma Disorders: PTSD  
**Assignment:** Moustafa (2013); Norman et al (2013)

May 2nd  Mon.  NO CLASS—MIDTERM BREAK

May 3rd  Tues.  **TAKE HOME EXAMS DUE BY 4:30 p.m.**

May 4th  Wed.  OCD  

May 6th  Fri.  Substance Abuse I: General Mechanisms of Addiction  
**Assignment:** Koob (2015); Volkow & Morales (2015); NIDA website on The Science of Addiction

May 8th  Sun.  **Mother’s Day**

May 9th  Mon.  Substance Abuse II: Alcoholism  
**Assignment:** Hagele et al (2014); Tabakoff & Hoffman (2013)

May 11th  Wed.  Disorders of Impulse Control  
**Assignment:** Bari & Robbins (2013) + TBA

May 13th  Fri.  Ghost Boy  
**Assignment:** pp. 1-95

May 16th  Mon.  Ghost Boy  
**Assignment:** pp. 97-257

May 18th  Wed.  **Quiz 2 + Epilepsy**  
**Assignment** Shin et al (2011)
May 20th    Fri.    Traumatic Brain Injury  

May 23rd    Mon.    Multiple Sclerosis & Amyotrophic Lateral Sclerosis (ALS)  
Victoria Day (Canada)

May 25th    Wed.    Parkinson’s Disease  
Assignment: Dunning et al (2012); Goldman (2014)

May 27th    Fri.    Alzheimer’s Disease  
Williams (2013)

May 30th    Mon.    NO CLASS  
Memorial Day

May 31st    Tues.    CLASS PROJECTS DUE BY 4:30 P.M.

June 1st    Wed.    Wrap-up

June 6th    Mon.    TAKE HOME FINAL EXAM DUE BY 4:30 P.M.  
Electronic Submission O.K.

Reserve Readings

A selective review of past studies and emerging themes in brain structure  
and cytoarchitecture. Neuroscience, 303, 82-102.


Environmental risk factors and multiple sclerosis: an umbrella review of systematic  


circuits, habits, and implications for obsessive-compulsive disorder. Current  
Bryn Mawr College. Organization of the nervous system. 
http://serendip.brynmawr.edu/exchange/brains/structures


Karr, J. E., AReshenkoff, C. N., & Garcia-Barrera, M. A. (2014). The


inflammation and neurodevelopment in schizophrenia: human studies. Progress in Neuro-Psychopharmacology & Biological Psychiatry, 42, 92-100.


University of Bristol. What are neurons? http://www.bris.ac.uk/synaptic/basics/basics-1.html Last updated Sept. 27th, 2011


