

**NS 105 Syllabus: Introduction to Neuroscience**  
**THINK Summer Institute 2020**  
**July 13<sup>th</sup> – July 31<sup>st</sup>**  
**M-F 2:00-5:00 p.m.**

**Instructor:** Fang Jiang, Ph.D.

**Office hours:** M-F 1:30 to 2 p.m.

**Course Description:** The brain arguably represents the only object on earth with function that is greater than the sum of its parts. This course presents an overview of neural function and cognition as a means to introducing basic principles in biological science. This course will also focus on the treatment and impact of neurological diseases on society. Topics will range from the electrical basis of brain function to higher-order cognitive processes and neurodegenerative diseases.

**Course Prerequisites:** None

**Required Texts (will be ordered and provided by THINK):**

**Biopsychology** by Martin S. Shapiro

**His brother's keeper** by Jonathan Weiner.

**Course Objectives:** This course aims to provide an overview of neural function, cognition, and diseases of the nervous system. The causes and social implications of neurodegenerative disorders will be a primary focus. This course also aims to introduce students to the neuroscience faculty and research programs at UNR.

**Student Learning Outcomes:**

- 1) Students will be able to demonstrate a basic understanding of neural function
- 2) Students will be able to articulate the general biological principles underlying neurodegenerative disease.
- 3) Students will be able to relate neural functions to societal issues including the cost, diagnosis and treatment of neurological disease.

**Grading:** Grading scale: A-F

A: 90%-100%, B: 80%-89.9%, C: 70%-79.9%, D: 60%-69.9%, F: <59.9%. Pluses and minuses will be assigned to the top and bottom 2.5% of each grading bracket, respectively. The university does not recognize the grade of A+.

**1000 points total comprising:**

- Group project worth 250 points.
- Three exams worth 500 points total (*the lowest exam score will be dropped*).
- In-class quizzes worth 100 points total.
- Five book assignments worth 150 points total (*30 points each*).

For documented reasons such as medical and family emergencies, every attempt will be made to provide makeup exams, but these cannot be guaranteed.

**Statement of Academic Dishonesty:** The University Academic Standards Policy defines academic dishonesty, and mandates specific sanctions for violations. See the University Academic Standards policy: [UAM 6,502](#).

**Statement of Disability Services:** Any student with a disability needing academic adjustments or accommodations is requested to speak with the [Disability Resource Center](#) (Pennington Student Achievement Center, Suite 230) as soon as possible to arrange for appropriate accommodations.

**Statement for Academic Success Services:** Your student fees cover usage of the Math Center (784-443 or [www.unr.edu/mathcenter/](http://www.unr.edu/mathcenter/)), Tutoring Center (784-6801 or [www.unr.edu/tutoring/](http://www.unr.edu/tutoring/)), and University Writing Center (784-6030 or [http://www.unr.edu/writing\\_center/](http://www.unr.edu/writing_center/)). These centers support your classroom learning; it is your responsibility to take advantage of their services. Keep in mind that seeking help outside of class is the sign of a responsible and successful student.

**Statement on Audio and Video Recording:** Surreptitious or covert video-taping of class or unauthorized audio recording of class is prohibited by law and by Board of Regents policy. This class may be videotaped or audio recorded only with the written permission of the instructor. In order to accommodate students with disabilities, some students may have been given permission to record class lectures and discussions. Therefore, students should understand that their comments during class may be recorded.

**Statement on Title IX:** The University of Nevada, Reno is committed to providing a safe learning and work environment for all. If you believe you have experienced discrimination, sexual harassment, sexual assault, domestic/dating violence, or stalking, whether on or off campus, or need information related to immigration concerns, please contact the University's Equal Opportunity & Title IX office at 775-784-1547. Resources and interim measures are available to assist you. For more information, please visit: <https://www.unr.edu/equal-opportunity-title-ix>.

**Technology Statement:** You are allowed to use laptops in class to take notes. All materials including this syllabus will be available on WebCampus. In addition, the WebCampus site will be used to communicate via class announcements, to collect assignments, and to answer questions.

**Student Response System Technology:** Not required.

## Course Schedule (Tentative)

<b>Date</b>	<b>Topic (subject to change)</b>
13-Jul	Intro to nervous system
14-Jul	Neuron and action potential
15-Jul	Brain structures ( <b>Book assignment # 1 due</b> )
16-Jul	Techniques in neuroscience
17-Jul	<b>Exam 1 &amp; Field Trip 1</b>
20-Jul	Vision ( <b>Book assignment # 2 due</b> )
21-Jul	Audition
22-Jul	Touch
23-Jul	Memory & Learning ( <b>Book assignment # 3 due</b> )
24-Jul	<b>Exam 2 &amp; Field Trip 2</b>
27-Jul	Neural plasticity ( <b>Book assignment # 4 due</b> )
28-Jul	Neurological disorders
29-Jul	Neurological disorders
30-Jul	Neurological disorders ( <b>Book assignment # 5 due</b> )
31-Jul	<b>Exam 3 &amp; Group project presentation</b>