Syllabus

### NROSCI 1036: Neurobiology of Aging

Fall 2018

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| **Instructor:** | Ann D. Cohen, PhD |
|  | Dept. of Psychiatry |
|  | *Office:* Oxford Building, Suite 830 3501 Forbes Ave.  |
|  | *Phone:* 246-6251*Cell*: 512-5006 |
|  | *Email:* cohenad@upmc.edu |
|  | *Office Hours***:** By appointment |

**Course objective**

This course will introduce the student to the study of aging (gerontology) and the effects of normal aging and pathological aging on the nervous system. We will discuss general concepts of aging, and biochemical, physiological, and behavioral age-associated changes in the motor, sensory, cognitive, and neuroendocrine systems. By the end of the course the student should have a clear understanding of what aging is and what effects it has on normal brain function.

**Textbook and articles**

Much of the lecture material for this course will be taken from 3 books: *The Biology of Aging* by R. Arking; *Functional Neurobiology of Aging*, P.R. Hof & C.V. Mobbs (eds); and *Handbook of the Neuroscience of Aging*, P.R. Hof & C.V. Mobbs (eds). Purchase of these books is not required. Any articles that are discussed or used during the course will be made available to the students.

**Lectures**

Lectures will be held M W F from 9-9:50 PM in 123 Victoria.

The first part of the course will focus on understanding aging and aging research. We will then discuss age-associated changes throughout the neuraxis.

**Course Requirements and Grading**

**Students are responsible for *all* material presented in lectures and any additional assigned reading**. Many exam questions come from the notes that accompany each lecture, although the notes won't help much if you don't also attend class. Some exam questions may be taken from the assigned reading material even if it is not directly discussed in class.

**1. EXAMS:** There are a total of **3 non-cumulative essay exams**, to be taken home. There will be no final exam. There will be a final project involving a paper and presentation based on a topic presented during the semester. Class participation (in paper discussions) will also be included in your final grade.

**2. GRADES:** Your grade will be determined based on the following calculation. Your total points will be divided by the highest total points achieved by a student in the class and this percentage will be used to calculate your grade. The following grading scale will be used:

# Percentage Points Letter Grade Percentage Points Letter Grade

98.0 - 100 A+ 80.0 - 82.9 B-

93.0 - 97.9 A 77.0 - 79.9 C+

90.0 - 92.9 A- 70.0 - 76.9 C

87.0 - 89.9 B+ 60.0 - 69.9 D

83.0 - 86.9 B 59.9 or less F

**3. MAKE-UP EXAMS:** As a general rule, there are no make-up exams as the exams are take home.

**4. GRADING REVIEW POLICY:** If you feel that a question or questions were graded erroneously on an exam then you will have the right to make your point. You must submit to me in writing a summary detailing what question(s) you think was graded incorrectly and arguments as to why you believe your answer was correct. This must be submitted to me no later than 1 week after the exam in question has been reviewed in class. I will return your written arguments to you with my decision whether or not to change your grade.

**5. G-Grades**:
In the event that a student is prevented from completing the course, a G-Grade can be given by special permission from me. The G-Grade allows **two additional terms** to complete the course work.

**6.** **Academic Integrity**:

Cheating/plagiarism will not be tolerated. Students suspected of violating the University of Pittsburgh Policy on Academic Integrity (http://www.fcas.pitt.edu/academicintegrity.html) will be dismissed from the class with a failing grade (F).

**7. DISABILITY RESOURCE SERVICES:** If you have a medical or learning condition that makes it difficult for you to take an exam during regular class hours you might be eligible to take your exams through the DRS office (216 William Pitt Union, 412-624-7890). Arrangements must be made through the DRS office two weeks before each exam and I must have the DRS Test Form one week before each exam.

**COURSE SCHEDULE**

|  |  |
| --- | --- |
| **DATE** | **TOPIC** |
| August 27 | INTRO TO AGING |
| August 29th | STUDYING AGING  |
| August 31 | STUDYING AGING  |
| September 3 | NO CLASS |
| September 5 | LONGEVITY |
| September 7 | LONGEVITY |
| September 10 | ALTERING AGING |
| September 12 | ALTERING AGING |
| September 14 | ALTERING AGING |
| September 17 | Exam 1 |
| September 19 | GENERAL BRAIN CHANGES IN AGING |
| September 21 | GENERAL BRAIN CHANGES IN AGING |
| September 24 | GENERAL BRAIN CHANGES IN AGING |
| September 26 | CVD and BRAIN |
| September 28 | CVD and BRAIN |
| October 1 | CVD and BRAIN |
| October 3 | CVD and BRAIN |
| October 5 | CHANGES- COGNITION |
| October 8 | CHANGES-COGNITION |
| October 10 | MOTOR SYSTEM CHANGES |
| October 12 | MOTOR SYSTEM CHANGES |
| October 16 \*\*Note Tuesday Class\*\* | Exam 2 |
| October 17 | ALZHEIMER’S DISEASE |
| October 19 | ALZHEIMER’S DISEASE |
| October 22 | ALZHEIMER’S DISEASE |
| October 24 | ALZHEIMER’S DISEASE |
| October 26 | OTHER DEMENTIA |
| October 29 | NO CLASS |
| October 31 | NO CLASS |
| November 2 | OTHER DEMENTIA |
| November 5 | NO CLASS |
| November 7 | OTHER DEMENTIA |
| November 9 | OTHER DEMENTIA |
| November 12 | PARKINSON’S DISEASE |
| November 14 | PARKINSON’S DISEASE |
| November 16 | PARKINSON’S DISEASE |
| November 19 | Exam 3 |
| November 21 | NO CLASS  |
| November 23 | NO CLASS |
| November 26 | FINAL PROJECT PRESENTATIONS |
| November 28 | FINAL PROJECT PRESENTATIONS |
| November 30 | FINAL PROJECT PRESENTATIONS |
| December 3 | FINAL PROJECT PRESENTATIONS |
| December 5 | FINAL PROJECT PRESENTATIONS |
| December 7 | FINAL PROJECT PRESENTATIONS |

**\*\*\*THE INSTRUCTOR RESERVES THE RIGHT TO ALTER THIS SCHEDULE AS SHE DEEMS NECESSARY, ALL DATES ARE SUBJECT TO CHANGE\*\*\***