Instructor: Helen J. Neville neville@uoregon.edu
335 LISB Office Hours: Mondays 5:20 – 6:20
(or by appointment)
GTF: Lauren Vega O’Neil oneil@uoregon.edu
117 LISB (enter 102) Office Hours: Tuesdays, 10:00 -11:30 AM

Date Topic Readings
Jan. 6-8 Background, Issues and Techniques in Cognitive Neuroscience
*Ch. 1, 2, 3, 4
(2 & 3 should be review)
Jan. 13-15 Sensory Development and Plasticity
*Ch. 15. pp. 178-179; 626-627
**Reading (sections I, II, and III)
Jan 20 MLK Jr. Day – No class
Jan 22 EXAM 1
Jan 27-29 Memory *Ch. 8
Feb. 3-10 Language *Ch. 9, 10
**Reading (section IV)
Feb 12 EXAM 2
Feb 17 Object and Face Recognition *Ch. 5, 6
Feb. 19-24 Attention *Ch. 7
** Reading (section V)
Feb. 26 Social/Emotional Cognition: Insights from Brain Lesions
Mar. 3-12 Social/Emotional Cognition: Inequality *Ch 13
** Reading (section VI)
*** Neville paper (on Blackboard)
Tues., Mar. 18 @ 3:15 pm EXAM 3 – non-cumulative final


Grading: Exam 1 = 20%, Exam 2 = 25%, Exam 3 = 30%
Research Proposal = 25% of grade - 4-6 pages

Graduate Research Proposal - 7-10 pages
Student: Article Review - 5-10 minute review of an original research article for class

Research Paper: Topic due Wednesday, Jan 29th
Rough draft due Wednesday, Feb 26th
Final draft due Monday, March 10th
For each of the cognitive processes we will discuss you should be able to provide evidence about:
- the brain systems that are important (between and within the hemispheres)
- functional subsystems within these cognitive processes that have been implicated by studies at several different levels of analysis
- how these functionally specialized systems develop

Different levels of analysis, types of evidence we will use to study the neural basis of cognition

1. Animal Studies
   a. lesions
   b. single neurons
   c. behavior
   d. effects of experience
   e. gene expression

2. Human Clinical patients (adults)
   a. lesions/MRI
   b. split brain surgery
   c. stimulation

3. Normal Human Adults
   a. behavior
   b. ERPs
   c. PET
   d. MEG
   e. magnetic stimulation
   f. fMRI
   g. T.M.S.
   h. effects of experience
   i. genetic variability

4. Human Development
   a. lesions
   b. behavior
   c. ERPs
   d. fMRI
   e. effects of experience
   f. genetic variability

Examples of types of evidence we will discuss for:

Sensory Development and Plasticity
1a, b, c, d; 3a, b, c, d, e, f, g, h; 4a, b, c, d

Perception and Object Recognition, Functional Organization of the Visual System
1a, b; 2a; 3a, b, c, f, g, h

Face Processing
1a, b; 2a; 3a, b, c, f, g; 4b, c, d

Attention
1a, b, c; 2a; 3a, b, c, d, f, g, i; 4b, c, d, e, f

Memory
1a, b, c; 2a; 3a, b, f, i; 4b

Language
2a, b, c; 3a, b, c, d, e, f, g; 4a, b, c, d, e

Social/Emotional Cognition
1a, b, c, d, e; 2a; 3a, f, h, i; 4b, e
Course Policies:

Prerequisites
To take this course, both PSY 303 and 304 must have been completed prior to taking this class.

Grading Letter
Grades are determined as follows:

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Excused Absences
Absences will be considered “excused” at the discretion of the instructor.

- **Planned Absences**: If you know you will need to miss class, please discuss this with the instructor in advance of your absence! Planned absences include the following:
  - Planned school-related events (e.g. traveling athlete, course field trip)
  - Planned, significant personal event (e.g. sister’s wedding, job interview).

- **Unplanned Absences**: If something unexpected occurs, please let the instructor know ASAP so we can decide together how best to proceed. Unplanned acceptable absences include the following:
  - Significant, unexpected event (e.g. torn ACL, family funeral)
  - Minor, unexpected event (e.g. flu, etc.) – health related, only!

- Please get a doctor’s note – only with the doctor’s note will your absence be considered “excused.”

Absences will only be considered excused if you talk with the instructor in advance of or as soon as possible after missing class. Please do not wait until the end of the course to discuss your situation with the instructor!

Students with Disabilities
If you have a documented disability, and you anticipate needing accommodations in this course, please meet with the instructor as soon as possible and provide your AEC notice. Also, please request that Hillary Gerdes (hgerdes@uoregon.uoregon.edu, tel. 346-3211, TTY 346-1083), Senior Director of the Accessible Education Center, send a letter to the instructor verifying your disability.

Students for whom English is a Second Language
If you are a non-native English speaker and think you may have trouble in this course due to language difficulties, please see the instructor as soon as possible. Our GTF is an ESL specialist and can employ specific and/or individual accommodations if you let us know in advance. Please note that you may only use dictionaries/translators during quizzes if you have discussed this with the instructor at the beginning of the term.

Academic Honesty
All work submitted in this course must be your own. If your responses on assignments are suspected of plagiarism, or if the instructor has any reason to be concerned about your conduct during a quiz or assignment, you may be asked to move seats, have your quiz confiscated, and/or be given an “F”. All violations will be taken seriously and noted on student disciplinary records. If you have questions regarding any aspect of these issues, please talk with the instructor before you complete any relevant requirements for this course. For more information, see the UO web site regarding academic honesty at:

http://studentlife.uoregon.edu/StudentConductandCommunityStandards/AcademicMisc
donduct/tabid/70/Default.aspx