Cognitive Neuroscience
PS/NC 330 - Winter 2004

Class Time:  T, R  8:00-1:00, Pgill 257
Discussion:  R, 12:05-1:00 Pgill G227
Final Exam:  F, April 15th, 1:00 PM

Instructor:  J. Roxanne Prichard, Ph.D.
Office:  Pettengill 365
Phone:  786-6426
Email:  jprichar@bates.edu
Office Hours:  Th 2-4 or by appointment

Course Overview
Cognitive neuroscience is, as the text states, the study of “how the brain enables the mind.” The purpose of this course is for you to develop an advanced understanding of the biological basis of mental activity. We will examine the biological roots of various mental phenomena including the following: perception, attention, learning, memory, language, emotion and consciousness. In particular, we will focus on the roles of plasticity and evolutionary pressure in shaping the mind, and on the treatment of cognitive neuroscience in popular media.

Assigned Readings
Textbook: Gazzaniga, Ivry & Mangun, Neuroscience: The Biology of the Mind, 2nd ed

Case Studies: Oliver Sacks, The Man who Mistook his Wife for a Hat (required)
Oliver Sacks, An Anthropologist on Mars (recommended)

Articles:


Grade
Your grade will be determined by your performance on three exams, your participation in class discussions and laboratories, and on the quality of a major research paper.

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60%  Exams
33%  Exam 1
33%  Exam 2
33%  Final Exam 3

30%  Research Paper
85%  Essay
15%  Peer Review

10%  Attendance & Participation

Requirements

Exams- Exams will be composed of one or more of the following formats: essay, short answer, identification, and multiple choice questions. Each test will cover the material learned in class, as well as the assigned readings. You will only be given a makeup exam if you have a Dean’s excuse. The discussion section on the Thursday prior to each exam will serve as a review session.

Research Paper- The culminating assignment in this class is a 15-20 page research paper that examines the relationship between primary cognitive neuroscience data and popular media interpretations of that data. This assignment offers you a chance to demonstrate your original ideas and critical thinking, as well as an opportunity to delve into a specific topic of interest to you.

The essay is due at the beginning of class on Thursday, March 31. 85% of your research paper grade will be based on the clarity of your argument, the thoughtfulness of your analysis, and the general style and readability of your writing. 15% of your research paper grade will be based on the helpfulness of your critique of a peer’s paper. The peer review will occur during the discussion section on March 31.
Criteria for evaluating research paper

- An A paper is well-researched, clearly articulated, and most importantly, a thoughtful representation of your own critical analysis of the topic.
- A B paper offers a clear review of the research. The major argument of the essay however may not be as well supported, clearly presented, or original as that of an A essay.
- A C paper presents a review of the research that is poorly organized or incomplete. A C paper may also contain a few major errors in science reasoning. The major argument of the essay is either not original or incoherent.
- A D paper is one that is hastily thrown together, disorganized, and dull. It does not offer an original critique and is not well supported.
- An F paper fails to address the guiding questions of the assignment or contains evidence of academic dishonesty.

Attendance & Participation
Lively and critical discussion of the material is essential to the success of this class. Your participation grade reflects my assessment of your attendance and participation. To promote careful and timely reading of the material, part of your participation grade may reflect your performance on in-class, unannounced quizzes. This component of your overall grade allows me to account for any improvements you’ve made over the course of the semester or discrepancies I observe between your performance on tests and your understanding of the material.

Resources
Office Hours: Pgill 365, Th 2-4 pm and by appointment
Writing Workshop: 53 Campus Avenue, 786-6159
Math and Statistics Workshop: Canham House 1 & 2, 786-8374
WebCT: Contains course syllabus, calendar, assigned articles, and links to CogNeuro search engines & research societies

Policies
Communication- Please check your Bates email account regularly. I will be using the class list serve for announcements, assignment clarifications, and more. I will also be using WebCT to link to assigned readings and useful resources, and to post lecture notes. Notes will be posted on WebCT by 6 PM, the evening before the lecture.

Feedback- Feel free to contact me at any time with questions or concerns about the course content, presentation, and/or your performance in the course.

Attendance- The functions of the class period are to 1) discuss, clarify, and expand on information from the text and articles, and 2) bolster your understanding of these concepts with demonstrations, laboratories, and examples from current research. You will be responsible for knowing material presented during lectures that is not covered in the textbook. The only optional class periods are indicated by an asterisk (*) in the course schedule.
Lost & Late Work- Deadlines are firm. Late work will not be accepted unless you have a Dean’s excuse, or gain approval from me for an extension at least 24 hours prior to the deadline. There is no excuse for lost, crashed, or otherwise destroyed files at Bates. Back up your work on the Paris (or other) server.

Disability statement- If you have a physical, motor, sensory, medical or learning disability that inhibits learning under usual circumstances, please inform me and the Dean of Students, so that we can work together to make any necessary adjustments. If you require extra time on examinations, I will need to see a note from the Dean of Students at least two days in advance.

Plagiarism- All writing assignments will be screened for evidence of plagiarism. Plagiarism of any kind is unacceptable, and infractions will be reported to the Office of the Dean of Students. For a tutorial of academic plagiarism, refer to the CBB plagiarism resource site: http://leeds.bates.edu/cbb/ .