Cognitive Psychology
Course Syllabus
Spring 2009       Dr. Cindi May
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Office hours: Tues/Thurs 10:50-12:20

Required Texts:
(University bookstore)
CogLab – (0-495-10778-6) Student Manual at University bookstore; MUST PURCHASE NEW!
Articles on WebCT  (see assigned readings below)

Course Overview: This course provides an in-depth exploration of classic and current issues in human cognition, examining both behavioral and neuropsychological approaches to data and theory. Topics will include experimental and neuropsychological methodologies in cognitive science, sensation, perception, attention, working memory, encoding and retrieval processes, implicit memory and multiple memory systems, categorization, decision making, developmental changes in cognition, and language acquisition and comprehension.

Educational Goals: There are four educational goals for this course. (1) A primary goal in this course is to develop expertise in issues of human cognition - to understand what factors influence cognitive functioning and performance, and the theories about how and why they do so. (2) In addition, you will gain experience in cognitive experimentation by participating in a number of classic cognitive studies. These studies are designed to provide insight into some of the questions addressed by cognitive researchers and the various methodologies they employ. (3) You will also develop skills for summarizing, evaluating, and critiquing research in the primary literature. (4) A final aim in this course is to enhance your ability to think critically and scientifically about everyday cognitive problems (e.g., how can I study more effectively so that I have greater comprehension and recall?) so that you can begin to generate solutions for these problems.

Course Requirements: There are four general course requirements: (a) assigned readings, (b) research paper, (c) tests/final exam (d) CogLab web experiments.

(a) Readings Students should come to class FULLY PREPARED, having read the complete assignment in "advance" and ready to DISCUSS the readings in class. This class will be part lecture, part discussion, so student participation is mandatory. In the assignments listed below, you should read the text for each section before the first day that the section will be discussed in class. For example, Chapter 1 should be read by the time you come to class on January 15th. Please pay careful attention to the assignments, as you will not always read the chapters from a given book in sequential order, and most assignments include readings from multiple sources.

Supportive material (e.g., outlines, quizzes, flashcards) for your main text (Cognitive Psychology) can be found at the following website:
http://wps.ablongman.com/ab_robinson_cogpsych_1

(b) Research Paper All students will learn how to research a topic using peer-reviewed journal articles, how to summarize that research, and how to construct logical, effective arguments about behavior on the basis of empirical research. Students will select a topic from a list, and will write a research paper in APA format. All papers are due Mar 17th at the start of class. Hard copies must be
submitted; no electronic copies will be accepted. More information is provided at the end of the syllabus. Papers will be penalized ten points for each day they are late.

(c) Tests and the final exam. There will be four tests in this course, plus a final cumulative exam. The dates for the tests are listed in the reading assignments below; the final exam will be held on the date and time designated by the college. Students are responsible for knowing test and exam dates, and for completing the tests on the assigned dates. If you miss a test because of an emergency (e.g., death, illness, etc.), you must have a written note from the Dean of Undergraduate Studies documenting the emergency. With a note from the Dean, you may take a makeup exam on reading day. Without a note from the Dean, you may receive an F for that exam. **Note that all makeup exams will be given on reading day (April 28th) – no exceptions.**

If you are an athlete and know that you will be out of town for an exam, you must notify me at LEAST ONE WEEK before the exam so that we can make appropriate arrangements for you to take it. If you are a student with special needs (e.g., documented learning disorder) and would like special arrangements (e.g., extra time or separate testing room), please see me at your earliest convenience so that we can make appropriate arrangements. I am happy to accommodate students in any way feasible, but you must provide documentation of your need and give me at least one week’s notice prior to each exam.

(d) CogLab Web Experiments. Each student must purchase a NEW CogLab Student Manual from the bookstore, and will complete 10 web-based experiments in this course. The assigned experiments and their due dates are listed in the “Assignment” section of the syllabus. To participate in the CogLab experiments, you will need the following information: (a) The Website: www.coglab.wadsworth.com; (2) GroupID: springfling1 (3) access password: superfun and (4) a Registration Code (found in your CogLab manual).

To get started, have all the information above ready and go to the main website (www.coglab.wadsworth.com). PAGE DOWN to the student section, and click on “create new account.” Follow the step-by-step instructions to register and get started. **YOU MUST HAVE A NEW LAB MANUAL IN ORDER TO PARTICIPATE.**

Once you are registered, you can complete a study. Each study requires approximately 30 minutes of your time, and can be completed at any computer with web access. Each study must be completed by 7:00 am on the date assigned in the syllabus, but you may certainly complete them in advance should you choose. The fact that these experiments are web-based means that students can participate in these studies at any hour, day or night.

For each study, the software will keep track of who has completed the study and will tabulate data for each student. **YOU NEED ONLY COMPLETE THE WEB EXPERIMENT; THERE IS NOTHING TO HAND IN TO ME.** I will compile the data and use it as a basis for class discussion. Because I will discuss the findings in class, all experiments must be completed on time – **YOU WILL NOT RECEIVE CREDIT FOR LATE ASSIGNMENTS.** It is to your advantage to complete every experimental assignment, not only because you earn credit for each study, but also because the content of the studies will be covered on your exams. These are very simple assignments to complete, and if you simply participate in the web program you will receive full credit – so do them!

(d) Research Paper. All students will learn how to research a topic using peer-reviewed journal articles, how to summarize that research, and how to construct logical, effective arguments about behavior on the basis of empirical research. Students will select a topic from a list, and will write a research paper in APA format. All papers are due March 17th at the start of class. Hard copies must be submitted; no electronic copies will be accepted. Papers must be submitted to Dr. May. More information is provided at the end of the syllabus. **Papers will be penalized ten points for each day they are late.**
OTHER THINGS YOU NEED TO KNOW

Attendance: Class attendance is mandatory on all test days. Furthermore, you are responsible for knowing the dates of each test, as they are clearly delineated on this syllabus. Class attendance is not mandatory for other class periods; however, regular attendance is *highly* recommended. I will cover material in class (e.g., lecture notes, video) that is not available in your text, and you are responsible for that material. Those who choose to skip class in favor of sleep, recreation, or any other unexcused reason do so at their own risk, and are responsible for obtaining course notes from a classmate.

Office hours: It is my goal to provide each student with all of the assistance that s/he needs to succeed in this course. If you are having difficulties in the class, are struggling with any of the material, or are simply curious about cognitive psychology, do not hesitate to visit me during office hours. My regular hours are posted at the top of the syllabus, along with my office location and my email. If you absolutely cannot make it to my office hours, email me or phone me to set up another appointment. I will make every effort to meet with you at a mutually convenient time.

Quizzes: As you will see, there are several on-line quizzes suggested throughout the syllabus. These multiple choice quizzes can be found at the following website: 
http://wps.ablongman.com/ab_robinson_cogpsych_1

These quizzes are OPTIONAL, but are highly recommended. Once you take the quiz online, you can submit your answers for immediate feedback. If you are not scoring at least 85% or better on each quiz, you should go back and review the chapter again. These are EASY quizzes, and assess your basic understanding of the text. You should have a deeper, more sophisticated understanding of the material after we discuss the material in class.

PLEASE NOTE: If you are not doing well in the course - for any reason - please come and see me immediately. Many students struggle with intellectual, medical, and personal challenges each semester, and the only way I can assist you is if you come and discuss your situation with me. Do not wait until the end of the semester to address a problem – seek help while it can benefit you most.

Extra Credit Opportunities (Entirely Optional)

A. Extra CogLab Experiments. Students may earn extra credit by completing additional CogLab experiments (that is, in addition to the 10 assigned studies). You may choose from any of the unassigned studies. You will receive 5 points for each additional study that you complete, but the total points you may earn is 15 (i.e., you may complete up to 3 additional studies for extra credits). These studies must be completed no later than April 27th.

B. Creative Option. Students can also use their creative gifts to earn extra credit. Students who choose this option can give a “creative presentation” (e.g., a song, a poem, a video, a work of art) in which they incorporate concepts of cognitive psychology. All creations must be related to cognitive science in some way. Examples will be given in class, and all students who participate earn *up to* 15 extra credit points (depending on the quality of the presentation and the effort involved). You must notify me by April 14th if you select this option, and presentations will be given on April 21st.
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<thead>
<tr>
<th>Topic</th>
<th>Readings (Complete by date listed)</th>
<th>Date</th>
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<tbody>
<tr>
<td>SECTION I</td>
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<tr>
<td>I.   Introduction</td>
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<td>Jan 13</td>
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<td>II.  Methodology</td>
<td>Chap 1 in R&amp;R</td>
<td>Jan 15</td>
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<td>MC Quiz 1</td>
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<td>Web CT Reading:</td>
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<td>McDaniel, Howard, &amp; Einstein (in press)</td>
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<td>Neuroscientific Techniques</td>
<td>Chap 2 in R &amp; R</td>
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<td>MC Quiz 2</td>
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<td>COBLAB – BRAIN ASYMMETRY</td>
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<td>III. Sensation &amp; Perception</td>
<td>Chap 3 &amp; 5 in R&amp;R</td>
<td>Jan 29</td>
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<td>MC Quizzes 3 &amp; 5</td>
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<td>Web CT Reading:</td>
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<td>Langlois, Roggman, &amp; Musselman (1994)</td>
<td>Feb 5</td>
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<td>COGLAB – SIGNAL DETECTION</td>
<td>Feb 5</td>
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<td>*****TEST 1</td>
<td>TEST 1</td>
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<td>SECTION II</td>
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<td>IV.  Attention</td>
<td>TWO COGLABS – PARTIAL REPORT &amp; STROOP</td>
<td>Feb 12</td>
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<td>Chap 4 in R&amp;R</td>
<td>Feb 17</td>
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<td>MC Quiz 4</td>
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<td>WebCT Reading:</td>
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<td>Strayer and Drews (2007)</td>
<td>Feb 17</td>
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<td>V.  Short-term/Working memory</td>
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<td>COGLAB – MEMORY SPAN STUDY</td>
<td>Feb 19</td>
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<td>VI. Encoding/Retrieval</td>
<td>Chap 6 in R&amp;R</td>
<td>Feb 24</td>
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<td>MC Quiz 6</td>
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<td>COGLAB – SERIAL POSITION STUDY</td>
<td>Feb 24</td>
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<td>**********TEST 2</td>
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SECTION III
VII. Mnemonic Aids and Memory Illusions
Chap 7 & 8 in R&R Mar 10
MC Quizzes 7 & 8

WebCT Reading:
COGLAB – FALSE MEMORY STUDY Mar 12

*********** RESEARCH PAPER DUE AT THE START OF CLASS Mar 17 ***********

VIII. General Knowledge, Categorization and Procedural Memory
Chap 9 in R&R Mar 19
MC Quiz 9
COGLAB – PROTOTYPES STUDY Mar 24

*****TEST 3 TEST 3 THURSDAY MAR 26*****

SECTION IV
IX. Reasoning and Decision Making Chap 11 & 12 in R&R Mar 31
COGLAB – RISKY DECISIONS Mar 31
MC Quizzes 11 & 12

X. Cognitive Development

WebCT Readings:
Chap 14 from Neath and Surprenant Apr 2
May et al. (2005) Apr 9
Rahhal et al. (2002) Apr 9

X. Language Production & Comprehension Chap 10 in R&R Apr 14
MC Quiz 10 Apr 16

WebCT reading:
Au et al. (2002). Apr 21

COGLAB – WORD SUPERIORITY Apr 21

*******TEST 4 TEST 4 THURSDAY, Apr 23*******

CUMULATIVE FINAL EXAM -- Please check CofC Website for Exam schedule
Grades: Your final grade will be determined by the total number of points you have earned at the end of the semester. The number of points for each assignment is listed below, along with the total number of points needed to earn each letter grade. Any extra credit points earned by students are added to their total during the calculation of their final grade.

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Total Possible Points</th>
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<tr>
<td>In-class tests</td>
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<tr>
<td>Test 1</td>
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<td>Test 2</td>
<td>100</td>
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<td>Test 3</td>
<td>100</td>
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<td>Test 4</td>
<td>100</td>
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<tr>
<td><strong>Total from all in-course tests</strong></td>
<td><strong>400</strong></td>
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<tr>
<td>CogLab Experiments</td>
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<tr>
<td>Grade for each study</td>
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<tr>
<td><strong>Total from CogLab Studies</strong></td>
<td><strong>100</strong></td>
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<tr>
<td>Research Paper</td>
<td>100</td>
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<tr>
<td>Cumulative Final Exam</td>
<td>150</td>
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<tr>
<td><strong>TOTAL POINTS FOR THE COURSE</strong></td>
<td><strong>750</strong></td>
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Extra Credit (maximum allowed) **15 points**

Grading Scale:
- 92%-100% = A
- 90%-91.99% = A-
- 88%-89.9% = B+
- 82%-87.9% = B
- 80%-81.9% = B-
- 78%-79.9% = C+
- 72%-77.9% = C
- 70%-71.9% = C-
- 68%-69.9% = D+
- 62%-67.9% = D
- 60%-61.9% = D-
- <60% = F
Guidelines for the Research Paper for Cognitive Psychology

All students will research an issue of debate in the cognitive literature, and write a paper that outlines scientific arguments for and against each side of the debate. The topics that you must select from are listed on the next page. For the topic of your choice, you should construct three empirically-supported statements that argue in favor of the issue, AND three empirically-supported statements that argue against the issue (a total of six arguments in all). Your arguments should not be based on speculation, personal opinion, or intuition. All arguments must be supported by published scientific research. These research papers are intended to stimulate critical thinking, research skills, and writing proficiency. All research and writing are to be done on your own. Students who share research or ideas will receive a zero for the assignment. Students who plagiarize will also receive a zero (see next page for further details). Maximum paper length is 6 text pgs of content, double spaced, 12 pt font. You should also include a cover page with your name, course section, and topic. Finally, you should include a reference page that lists all sources in APA format. Total paper length including cover page, content pages, and reference page is a maximum of 8 pages. Hard copies must be turned in to the professor – emailed versions are not acceptable. Please save an electronic version of your paper until your final grade has been submitted at the end of the semester.

As an example, consider the question of whether or not children should be used as eyewitnesses in the courtroom. Here is one statement against the use of child eyewitness testimony:

Children should not be used as eyewitnesses in the courtroom, because evidence shows that children can easily be misled about events in the past (e.g., Leichtman & Ceci, 1995). They often report erroneous information, not because they are intentionally lying, but because their memories can be distorted by activities after an event. Leichtman & Ceci (1995), for example, showed that a child’s memory for an event or person can be distorted both by her expectations or stereotypes of that person, and by misleading suggestions made about that person. In their study, Leichtman and Ceci staged an event in which a person named Sam Stone visited preschoolers in their classroom. Before his visit, some children were given information about Sam Stone to create an impression or stereotype that Sam was clumsy (stereotype group). Other children were given no prior information about Sam (control group). After his visit, the children were asked questions about Sam. For some children, the questions were straightforward (control), but for others the questions were misleading and suggested things that never happened (suggestion group). Results indicated that children in both the stereotype and suggestion group reported significantly more false things about Sam than those in the control group. Their reports were videotaped, and were later examined by professional clinicians and researchers. Perhaps the most frightening finding was that the professionals could not distinguish the true reports from the false reports, in part because the children who gave false reports were not actually “lying” – they were reporting the events as they “remembered” them. Unfortunately their memories were quite inaccurate. Eyewitness reports from children should thus be considered suspect because even those who seem credible might not be reporting the true events.

For each of the arguments that you give to support each side of the issue, provide at least one empirical finding to support your claim. Your research should come from published sources, such as journal articles or books. Do not use the internet or textbooks as sources, and do not use google, yahoo, etc. as your databases. You may retrieve scientific articles from the internet, but you must cite the journals (including the journal pages) from which the articles come. You must include a reference page in which you list all of your sources. All citations within the paper, and the references included on the reference page, should be written in APA format. See the Writing Lab for a helpful handout. All papers are due March 17th at the start of class. Papers turned in after
the start of class will be considered one day late. Late papers will be penalized 10 points for each
day they are late.

Topics from which to select for the research paper:
1. Should eyewitness testimony be admissible in court?
2. Should we outlaw cell phone use for drivers?
3. Can subliminal messages truly influence our behavior?
4. Is negative information more memorable than positive information?
5. Can animals use language?

Tools that may be useful in researching and writing:
--PsychInfo (online database available at CofC Library website)
--PsychArticles (online database available at CofC Library website)
--Psychology and Behavioral Sciences (online database at CofC Library website)
ISBN 0-534-63432X; publisher is Wadsworth – available in paperback
--The Psychology Student Writer’s Manual – put out by APA in paperback
--handout from the Writing Lab at CofC

Any student who plagiarizes his/her paper will receive an automatic 0 for the assignment, and
may face additional penalties. Students should be familiar with the College’s policy on plagiarism
and the Honor Code. Any suspected violations of the Honor Code may be brought before the Honor
Board. You should summarize the research IN YOUR OWN WORDS, giving credit for other authors’
ideas, theories, paradigms, data, and terminology. DO NOT USE DIRECT QUOTES UNLESS
ABSOLUTELY NECESSARY. You should summarize the research from other scientists, giving them
credit for their work, but using your own words to describe their methodology and findings. Do not
copy sentence structure, paragraph structure, or paper structure. “Writing” your paper means
reading, understanding, and relaying back what you have learned in your own words.

Plagiarism includes, but is not limited to, the following examples:

- Plagiarism includes the literal repetition without acknowledgment of the writings of another
  author. All significant phrases, clauses, or passages taken directly from source material
  with quotation marks and acknowledgement are instances of plagiarism.

- Plagiarism includes borrowing without acknowledgment another writer’s general plan in
  the creation of one’s own plan.

- Plagiarism includes borrowing another’s ideas and representing them as one’s own. To
  paraphrase the thought of another writer without acknowledgment is to plagiarize.

- Plagiarism includes allowing any other person or organization to prepare work which one
  then submits as his or her own.