COGNITIVE PSYCHOLOGY
Spring, 2009

Course #: PSY 201
Instructor: Alex Varakin, Ph.D.
Time: Tu/Th 9:00 – 10:30AM (Period 2s)
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Welcome to Cognitive Psychology – the science of the mind. Cognitive psychology is a
discipline that relies primarily on experimental methods to investigate how people
acquire (e.g. perceive), store (e.g. remember), organize (e.g. categorize), transform (e.g.
solve problems) and use (e.g. make decisions about) information. We will cover these
topics in approximately this order, starting with so-called “low-level” processes, such as
perception and attention, and ending with “high-level” processes, such as problem
solving. Along the way, we will discuss basic theoretical issues of how the mind works,
and also consider their implications for areas outside of psychology, ranging from
education to engineering to medicine, and beyond….

By the end of the course, you should: (1) Understand the methods and topics of cognitive
psychology (2) Appreciate and be able to communicate the importance of cognitive
psychology at a theoretical level (3) Understand some of the applications of cognitive
research and (3) Be able to further explore cognitive topics you find interesting.
(Basically, you’ll be a genius1)

COURSE REQUIREMENTS

READINGS: Matlin’s Cognition (7th ed.), and two other papers.

EXAMS: Exams will consist of a prelim (on 4/16), a mid-term (on 5/12) and a final
(during the exam period). You cannot use your book or your notes. Each exam will have
multiple-choice and short answer questions – and, lucky for you, exams won’t be
cumulative. The questions will cover materials from readings and lecture. You will have
2 hours to complete exams (9:00am-11:00am on exam days). Your highest exam score
will count for 30% of your final grade, your lowest for 20%, and the middle for 25%.

QUIZES / ASSIGNMENTS: Quizzes are not intended to assess what you’ve learned,
rather, quizzes are intended to help you learn. Thus, each quiz will consist of 1 or 2 short
answer questions, followed by immediate feedback. You will receive 1 point for
answering the question correctly, and .9 points for answering incorrectly (and you will
grade yourself – thanks Honor Code!). All quizzes will be “pop” quizzes. Other
assignments will consist an activity, and something that is turned in. The point value for
assignments will be determined on an ad hoc basis (but will usually be 2 or 3 points). I

1 Or not
will scale your quiz and assignments to count for 13% of your final grade. There will be many more quizzes (10 or so) than other assignments (2 or so).

WRITTEN ASSIGNMENTS: There will be two written assignments. These assignments are intended to introduce you to the primary literature of cognitive science so you can see how cognitive scientists communicate with each other. For both assignments, you will choose an article from the list at the end of this syllabus, read it, and write either an abstract (First Assignment), or an abstract and a critique (Second Assignment). Brief descriptions of each assignment are included below; more instructions will be distributed later.

Written Assignment 1: Abstract (Due 4/28/09)
Writing an effective abstract requires understanding the main points of the article and communicating them in a clear and concise way. This ability is a valuable in virtually all fields that require written communication, not just in psychology. Thus, for article abstracts you will identify the problem/question that an article addresses, the methods, procedures and subjects used to address the problem, and the results and conclusions of the paper in 200 words or less. This assignment will be worth 5% of your final grade.

Repeat Forgiveness: If you are not happy with the grade you receive on the first written assignment, I will allow you to repeat it (but only if you turn on the first assignment). That is, you can choose a new article, write a new abstract, and receive a new grade. Your old grade will be erased. Repeat forgive assignments will be due 5/19/2009.

Written Assignment 2: Critique (Due 5/19/2009)
Because no single experiment (or set of 2 or 3 experiments) is perfect, it is good practice to think critically about the aims, methods and conclusions of papers that you read. Of course, it is not good practice to criticize another person’s work or ideas without first understanding them. Thus, for article critiques you will first write an abstract. Then, you will attempt to identify potential methodological and theoretical flaws. This assignment will be worth 7% of your final grade.

COURSE POLICIES

ATTENDANCE, MAKE UPS and LATE WORK: There will be no make-ups for exams or quizzes, and late work will not be accepted unless 1) you have an emergency that requires your full attention is properly documented with the Dean’s office (Bailey or Romano) or 2) you have an excuse scheduling conflict.

Emergencies: I sincerely hope that no one has a serious emergency this term. In the case that a grave emergency does arise, provide the dean’s office with the proper documentation in a timely fashion (timely depends on the nature of the emergency). Note, that simply providing evidence that you went to a clinic is not proper documentation (even if it is sent to the Dean). Alternate arrangements for making up exams or turning in late work will be done on a case-by-case basis. In general though,
you should expect to take exams or turn in the assignment immediately upon returning to campus (unless the situation justifies another course of action).

**Scheduling Conflicts:** Excusable scheduling conflicts include participation in athletic events, academic field trips, religious observance, conference attendance, etc. If you’ve a question about a particular event, just ask me (Note: Family vacations, birthdays, anniversaries and concerts are not considered excusable scheduling conflicts, unless it is a really good concert⁴). You must turn into me a complete list of dates (with your coach’s or other authority’s signature) for which you will miss class due to foreseeable events by **Friday, 4/3/08**. If I do not receive this list by that date, then any absences related to athletic participation (or other scheduling conflicts) may not be excused. In the case of scheduling conflicts on exam or assignment due dates, you are expected to take the exam or turn in the work *early*.

**GRADING:** Grades will be assigned based on the total number of points earned divided by the total number of points (per assignment type). The percentage of points earned will then be weighted as follows:

- Highest Exam: 30%
- Middle Exam: 25%
- Lowest Exam: 20%
- Quizzes: 13%
- Written Assignment 1: 5%
- Written Assignment 2: 7%

Letter grades will be assigned using the typical standard (in American education), e.g. 92.5% = A, 90-92.4% = A-, 87.5-89.9% = B+, 82.5-87.4% = B, 80-82.4% = B-, etc. I sometimes, but not always “adjust” the distribution if too few people earn over 90% of the points. My goal is to obtain a mean grade of about 75-80% with a standard deviation of about 10-15%, and I will scale to these parameters if necessary. I never scale down.

**Extra credit:** You can earn extra credit by participating in experiments. Sign-up sheets will be distributed in class from time to time. If you find your own experiments to participate in, you will not receive extra credit unless everyone in the class is afforded an opportunity to volunteer too. You will receive 1 point per half-hour spent participating in pre-approved experiments. To earn credit for participation, you are responsible for turning in an experimenter signed experiment receipt to me. I will scale the total number of points available for the class to allow up to 4% of your final grade to come from extra credit.

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² Actually, not even good concerts count as excusable scheduling conflicts. Note, the Britney Spears show is on Tuesday 4/28 at 8:00PM, so you could probably make this show.
COURSE OUTLINE

Test and due dates will not change unless *Flunk Day* interferes with the schedule, (in which case the test or due date may be pushed back by one class period).

UNIT 1: Acquiring Information – PRELIM, Thursday, 4/16
   Topics (and Readings):
   - Introduction to Cognitive Psychology (Chapter 1)
   - Perception and Recognition (Chapter 2)
   - Attention (Chapter 3)
   - Short Term and Working Memory (Chapter 4)

UNIT 2: Storing and Representing Information – MIDTERM, Tuesday, 5/12 (make the week before?)
   Topics (and Readings):
   - Long-Term Memory (Chapters 5 and 6)
   - Imagery (Chapter 7)
   - Categories, Concepts and Knowledge (Chapter 8)

UNIT 3: Communicating and Using Information – FINAL, Finals Period (TBA)
   Topics (and Readings):
   - Language comprehension (Chapter 9)
   - Language Production (Chapter 10)
   - Problem Solving and Creativity (Chapter 11)
   - Judgment and Decision Making (Chapter 12)

IMPORTANT DATES

Tests:
Prelim: Thursday, 4/16/09
Midterm: Tuesday, 5/12/09
Final: During the regularly scheduled exam period, to-be-announced

Written Assignment Due Dates:
Assignment 1, Abstract: Tuesday, 4/28/2009
Repeat Forgive, Abstract: Tuesday, 5/19/2009
Assignment 2, Critique: Tuesday, 5/19/2009

No-Class Day:
Thursday 4/30/2009 ~ Dr. Varakin is giving a talk at the MPA Conference in Chicago.
SUGGESTED STUDY SCHEDULE

It is generally a good idea to read the textbook, review your in-class notes and to think about the material. It is an even better idea to engage in these activities more than once and before the eve of an exam. How do I know this? Well, cognitive psychologists have done a lot of research on memory, and the consensus is that these strategies tend to work well (not to mention that I was once an undergraduate student and have experience succeeding in and failing courses). With that said, I do not have an “official” policy that you must read any given chapter before any given lecture. The schedule below is to be taken as advice. I cannot guarantee that rigid adherence to any schedule will lead to an “A”. I do not suggest taking notes while you read a chapter the first time through, instead, write down questions that you can use to quiz yourself later. I will explain my reasoning in class.

By 3/31/09 – Read Chapters 1-4.
By 4/07/09 – Review class notes; quiz yourself on chapters 1, 2, 3 and 4 and class notes
By 4/15/09 – Re-read chapters 1-4 and class notes; pay special attention to areas that you failed on your self-administered quizzes;

By 4/21/08 – Read Chapters 5-8
By 4/30/09 – Review class notes; quiz yourself on chapters 5-8 and class notes
By 5/11/09 – Re-read chapters 5-8 and class notes; pay special attention to areas that you failed on your self-administered quizzes

By 5/16/09 – Read chapters 9-12,
By 5/21/09 – Review class notes; quiz yourself on chapters 9-12 and class notes
By 5/30/09 – Re-read chapters 9-12 and class notes; pay special attention to areas that you failed on your self-administered quizzes
ARTICLES FOR WRITING ASSIGNMENTS

This list contains (relatively) short experimental papers. I have attempted to include a wide range of topics and approaches, in particular, topics that might be of interest to you but may not be covered in class. Copies of these articles are on reserve in the library, however, the abstracts have been omitted. You are not permitted to read the abstracts as they appear in the original papers! Because the titles can be ambiguous with respect to topic, I have included the primary topic of each paper in parentheses.


