## Psychology 435 - Cognition

Summer 2013

Instructors:
Email:
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Office Hours

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Mondays, Tuesdays, Wednesdays, \& Thursdays 8:30 a.m.. - 10:20 a.m. (275 Lillis Business Complex)


## OVERVIEW OF COURSE STRUCTURE

Course Objectives: At the end of this course, you should have an understanding of how the neural mechanisms of the brain allow humans and animals to learn, form memories, experience emotions, and act on our thoughts and desires. Further, you should be able to read a description of research in Cognition and/or Cognitive Neuroscience and be able to identify the discipline as well as obtain a basic understanding of the research question, and finding(s).

Course Description: In this course, we will examine the theories of cognitive psychology and take a survey of the various subfields of cognitive research. The course will cover major topics such as perception, pattern recognition, attention, memory, language, reasoning, and decision-making. Toward this end, we will include discussion of the methods used by scientists to examine our cognitive abilities, the capabilities and limitations of cognition and thought, and look at the current knowledge of the underlying neural bases of perception.

Cognition involves the transformation of incoming signals into useful information or "representations" of the world. While cognition seems automatic and effortless, it is really a complicated constructive process. The goal of the course is to understand some of the processes involved in this construction. The modern day study of cognition is an interdisciplinary pursuit that includes studies of behavior, the brain, and computers. This course deals with all three types of studies with an emphasis on the first two. It is my hope that by the end of this course, you will have a new appreciation for how you experience the world on a daily basis.

Course Design: The course promotes active learning - through discussion, solving problems, texts, papers, presentations, and movies. The instructors are guides, cheerleaders, and coaches. The course encourages teamwork among students and instructor. Although Exams are to be completed individually, students are encouraged to work together on homework mini-quizzes as well as study groups for Exams.

Course Format: The material in this course will be presented through a combination of assigned reading from the text, journal article readings, homework assignments, class lectures, in-class discussion, and demonstrations. Lecture material and readings may overlap in material, but will not be replications of each other; some lecture material will not be covered in the readings and vice versa. You are expected to do the assigned reading before the class period in which it is due. Reading the material before the corresponding lectures will help your performance in two ways. First, discussions of the material during lecture will be more fruitful if you have at
least a general understanding of the material beforehand, helping you to ultimately comprehend and retain the material. Second, questions drawn from the assigned readings will be included on the regularly scheduled Exams, even if they have not yet been discussed in lecture.
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## COURSE REQUIREMENTS

1. Homework. There will be 8 homework assignments during this course (two per week). The homework assignments will be in the form of online mini-quizzes taken on Blackboard. You will be given 5 attempts at each homework quiz. Quizzes will only be available until 11:59p.m. the DAY THEY ARE DUE!!! This means that there will be no late homework quizzes accepted.
2. Exams. You will have at least 50 minutes to complete each Exam, be on time!!! Exams will cover all material since the previous Exam and might include multiple choice, fill-in-the-blank, true/false, and/or short answer questions. Exams are closed book, closed note, and are completed individually. On Exam days, we will have a 50 -minute lecture Prior to the Exam, followed by a 5 -minute break, after which the Exam will commence. You may leave after you complete your Exam, but if you leave the room For Any Other Reason (bathroom, etc. you must Bring me your Exam First). In addition, you may not leave until after you have turned in your Exam following its completion. Absolutely no texting or other use of electronic devices during scheduled Exam time is permitted.

At the end of the term, you will have the option of taking a "comprehensive make-up Exam", which will replace the lowest of your 4 Exam scores. Therefore, if you miss an Exam (and have a score of 0 for that Exam), the makeup Exam can be used to replace that. This is the only option for making up missed Exams no exceptions! On the final day of lecture, you will have 50 minutes to complete Exam 4, followed by 50 minutes to complete the make-up Exam.
5. Books. The required text is Cognition: Exploring the Science of the Mind ( $5^{\text {th }}$ Edition (with ZAPS and Cognition Workbook)) There is a website, which accompanies this textbook:
http://wwnorton.com/college/psych/cognition5/ch/01/studyplan.aspx
It is free to register and includes essay questions, practice quizzes, flashcards, crossword puzzles, learning objectives, etc. I STRONGLY recommend using this resource to help you prepare for quizzes.

Read assigned chapters before class and do the "review" sections in the book as you encounter them. Reread if you encounter trouble on a "review" section.
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## COLLABORATION

Collaborative Learning: Discussing homework with other students and your instructor is encouraged, as are homework and study groups for quizzes and exams. Talking over the problems and reworking them when you
discover that others got different answers promotes deeper understanding of concepts. However, each student must submit a separate homework. More explicitly, you may work together to solve problems and check your answers on homework with each other, but preparing those answers for your homework and the actual writing of any verbal answers need to be done independently.

Individual Work (when Collaboration = Cheating):
Your work on the quizzes must be your own. Any verbal statements on homework MUST be written in YOUR OWN WORDS. If you are caught cheating, the following consequences apply:

## Cheating on Homework:

First offense: " 0 " on homework assignment and homework will be counted as not turned in

## Cheating on a Exam:

An " $F$ " in the course. Infraction will be reported to the Office of Student Conduct and Community Standards

Second Offense: An "F" in the course. Infraction will be reported to the Office of Student Conduct and Community Standards.

# The University may impose additional penalties in accordance with the student conduct code: http://uodos.uoregon.edu/StudentConductandCommunityStandards/StudentConductCode/tabid/69/Default.aspx 

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## SPECIAL NEEDS

Students with Disabilities: If you have a documented disability and may need accommodations, contact us ASAP. There is no way we can help you if you come to us with a documented disability at the end of the term. In addition, please let us know in advance even if you are not sure that your disability will require accommodation (for example, if you have a physical disability that may require you to miss class, but you aren't sure it will). Students who are experiencing learning difficulties are encouraged to consult Disabilities Services (164 Oregon Hall; 346-1155; http://ds.uoregon.edu/).

Student Athletes: You must let me know during the first week of classes if you will miss class due to travel with a UO athletic team and require accommodation. Requirements for the course will not be relaxed for student athletes, however minor scheduling accommodations may be made (e.g., taking a quiz a few hours early) if planned well ahead of time.

Other Students: If you are repeating this class, or have other circumstances that might affect your ability to devote time to the class, please let us know now so we can discuss strategies to promote your success in this course. If you wait until you have problems in the course, it may be too late to salvage your grade, but planning ahead will likely lead to success.

## GRADING

Your final course grade is based on the following components:
$\mathbf{8 0}$ points $\quad \mathbf{8 0 \%}) \quad$ Score on 4 Exams worth 30 points each (there will be one comprehensive make-up Exam at the end of the term if you would like to replace your lowest Exam score or make-up a missed Exam)
$\mathbf{2 0}$ points $\quad \mathbf{( 2 0 \% )} \quad$ Score on 8 homework assignments worth points 15 each

Final grades will be based on the percentage of total possible points earned, distributed as follows:
B $+88.00-89.99 \% \quad$ C $+78.00-79.99 \% \quad$ D $+68.00-69.99 \% \quad$ Pass/No Pass:
A $93.00-100 \%$
B 83.00-87.99\%
C 73.00-77.99\%
D 63.00-67.99\%
P: 70.00\% and up
A- $90-92.99 \%$
B- $80.00-82.99 \%$
C- 70.00-72.99\%
D- $50.00-62.99 \%$
$\mathrm{N}: 69.99 \%$ or lower

Extra Credit. You can earn up to 2 points of extra credit (added to your final score) by participating in up to 2 hours of ongoing experimental research in the Psychology Department and writing a short 1 paragraph summary of the study or by writing a short 2 page paper on a research article of your choice (article must be approved by instructor prior to assignment submission).

## COURSE SCHEDULE

*Schedule, homework due dates and Exam dates subject to change

| Date | Topic | Readings | Readings/HW |
| :---: | :---: | :---: | :---: |
| Week 1 |  |  |  |
| 6/24 | History of Cognitive Psychology | Ch. 1 |  |
| Mon |  |  |  |
| 6/25 | The Neural Basis of Cognition | Ch. 2 | Aron (2008) |
| Tues |  |  |  |
| 6/26 | Selective Attention | Ch. 4 | Homework 1: Due 11.59p.m |
| Wed |  |  |  |
|  |  |  |  |
| $6 / 27$ <br> Thurs | Divided Attention I (Doing two things at once) <br> Exam 1: Second Half | Ch. 4 | Norman, Heywood, \& Kentridge (2013) |
| 6/28 | No Class |  |  |
| Fri |  |  |  |
| 6/30 | No Class |  | Homework 2: Due 11:59p.m. |
| Sun |  |  |  |
| Week 2 |  |  |  |
| $7 / 1$ <br> Mon | Distinguishing Multiple Memory Systems Working Memory | Ch. 5 | Luck \& Vogel (1997) |
|  |  |  |  |
| $7 / 2$ <br> Tues | Distinguishing Multiple Memory Systems - Long Term Memory | Ch. 6 |  |
|  |  |  |  |
| 7/3 | Memory Errors \& Complex Knowledge | Ch. 7-8 | Homework 3: Due 11:59p.m. |
| Wed |  |  | Schacter, Guerin, \& Jacques (2011) |
| 7/4 |  |  |  |
| Thurs | $4^{\text {th }}$ of July No Class |  |  |
|  |  |  |  |


| Week 2 |  |  |  |
| :---: | :---: | :---: | :---: |
| 7/5 | No Class |  |  |
| Fri |  |  |  |
| 7/7 | No Class |  | Homework 4: Due 11:59p.m. |
| Sun |  |  |  |
| Week 3 |  |  |  |
| 7/8 | Sleep, Cognition, \& Category Formation | Ch. 8 |  |
| Mon | Exam 2: Second Half |  |  |
| 7/9 | Object Perception | Ch. 3 | Rezlescu, Pitcher, \& Duchaine (2012) |
| Tues |  |  |  |
| 7/10 | Visual Imagery | Ch. 10 | Homework 5: Due 11:59p.m. |
| Wed |  |  |  |
| 7/11 | Language | Ch. 9 | Petkov \& Jarvis (2012) |
| Thurs | Exam 3: Second Half |  |  |
| 7/12 | No Class |  |  |
| Fri |  |  |  |
| 7/14 |  | No Class |  | Homework 6: Due 11:59p.m. |
| Sun |  |  |  |
| Week 4 |  |  |  |
| 7/15 | Thinking - Making Judgments |  | Ch. 11 | Burns \& Bechara (2007) |
| Mon |  |  |  |  |
| 7/16 | Reasoning - Deductive \& Inductive | Ch. 12 |  |  |
| Tues |  |  |  |  |
| 7/17 |  | Consciousness \& Unconscious Cognition | Ch. 13 | Homework 7: Due 11:59p.m. |
| Wed |  |  |  |  |


| Week 4 |  |  |  |
| :---: | :---: | :---: | :---: |
| $7 / 18$ | Exam 4: First Half |  | Krawczyk (2012) |
| Thurs | Comprehensive Make-Up Exam: Second Half |  |  |
| $7 / 19$ | No Class |  |  |
| Fri |  |  | Homework 8: Due 11:59p.m. |

