

# PSY 340 Cognition

**TERM:** Fall 2002 September 30<sup>th</sup> to December 6<sup>th</sup>

**TIME & LOCATIONS:** MWF Fri 11:00-11:50 @ DEARBORN 118

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**List server:** [psy340fall@lists.orst.edu](mailto:psy340fall@lists.orst.edu)

## OVERVIEW

This course introduces you to perception and cognition, an area of psychology where the main goal is to understand intelligent systems.

## PRIMARY OBJECTIVES

The primary objective of this course is to learn about intelligent systems, how they are built and how they function (how they perceive, pay attention, learn, remember, make decisions and problem solve). This course also deals with how researchers go about investigating intelligent systems, how they think about these systems and how they thought about such systems.

We will begin with an overview of cognition by delineating the relation between the mind (a mental construct) and the brain (a physical structure). The focus of the text and most lectures is on adult cognition, but in the lectures we will make frequent excursions into (a) the neuropsychological literature, (b) the life-span developmental literature, as well as (c) the applied domain (e.g., education, advertising).

## PREREQUISITES

PSY 201 and PSY 202. If you do not have these prerequisites, you may be disenrolled from the course unless you obtain my permission to enroll or to remain in this course.

## INSTRUCTIONAL METHODS

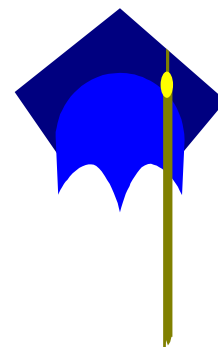
We will use several complementary instructional methods: readings, lectures, discussions and in-class experiments. The readings and lectures are efficient means of communicating basic knowledge. The discussions give you an opportunity to try-out your understanding of the materials covered in the readings and lectures. In-class experiments give you hands-on experience with cognitive research.

## EVALUATION

Your work in PSY340 will be formally evaluated by means of:

**5 BI -WEEKLY TESTS** (non-cumulative; best 4 count, 22.5% each; 90% course grade) The tests will have 40 multiple choice questions and each test will be 40 minutes long.

**IN-CLASS PROJECT/MINI -EXPERIMENT PARTICIPATION** (an exact number varies from year to year but typically you will participate in 12 projects/mini-experiments; 2 absences are automatically excused; a



proportion of projects/mini-experiments you participated in determines 10% of your course grade) From time to time, to enhance your hands-on experience with psychology, project/mini-experiments will be conducted using a variety of methods. Whenever you participate in the project/mini-experiment, we will ask you to identify yourself with your student number. For some demonstrations we will present only the grouped data from the class, but for other demonstrations we will return your individual scores to you. To assure your anonymity, we will post your scores by the last 5 digits of your student number (or by an alternate identifier you may choose). Thus you can be completely honest in your responses, and only you will know what scores you actually obtained. In this way you may learn some things about your own perception, attention, learning, memory, problem solving, decision making and other aspects of your own cognition.

**EXTRA CREDITS** (up to 5% course grade) You can earn up to 5% course grade extra credits in Assignments, Experimental and Media Credits.

## THE FINAL GRADING SCALE.

The final grade scale is a non-competitive scale; it is WYSI WYG or What-You-See-Is-What-You-Get scale. The feature advantage of the WYSI WYG scale is that it promotes interaction between you and your colleagues; you can form study groups and generally help each other to understand the material without lowering your relative standing (and receiving a worse grade on a curve grading system).

Grade scale	
A	93-100
A-	90-92
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	63-66
D-	60-62
F	0-59

## ASSIGNMENT CREDITS

You will have an opportunity to earn extra credits by completing special assignments that will be announced from time to time. For example, I may ask you to summarize and critically evaluate a research article in a brief written report. If you receive credits for the assignment, you must be ready and willing to make a brief 5-10 minutes presentation on your assignment to the class. Not everyone will be asked to make a presentation but if you are asked and you choose not to make the presentation, you will receive no credits for the assignment. The assignment credits will be multiplied by 1 and added to your final percentage grade.

## EXPERIMENTAL CREDITS

One way to learn more about psychological testing is to volunteer for an experiment. You may earn up to eight credits (1 credit for each hour) for participating in experiments announced in class. If you choose this option, please sign up for an experiment and follow any instructions that are listed on the sign-up form. Once you have participated in the experiment, the experimenter will tell you about their work and they will take your name and student ID to record your credit hours. The continuing availability of experiments in which you can earn credits is not guaranteed. Hence, it is in your best interest to obtain experimental credits as soon as possible. The experimental credits will be multiplied by 1 and added to your final percentage grade.



If you sign-up for the experiment and you do not show up, the equivalent number of experimental credits will be subtracted from the number of experimental credits you earned. Thus, (credits earned minus credits not shown up for) multiplied by 1 will be added to your final percentage grade. If you do not like to participate in experiments, you may earn experimental credits by writing brief (500 words) summaries of recent research reports (1 summary is worth 1 credit). If you choose this option, you need to discuss it with me and get it approved first.

## MEDIA CREDITS

You can submit up to 2 newspaper, popular magazine stories, or videos that grabbed your attention and that are directly relevant to the material covered by the course (scientific journal articles and internet articles are not acceptable). The submission should grab the attention of your colleagues, if presented. You need to submit a hard copy. Each submission is graded on a PASS/FAIL basis and is worth 1 credit. The deadline for the first submission is end of the 4<sup>th</sup> week of classes and the deadline for the second submission is end of the 8<sup>th</sup> week of classes. If a submission is judged as unacceptable/FAIL, you can resubmit as long as your submission PASSES by the deadline. If I ask you to present your submission to class and you agree, you will earn an additional 1 credit towards your 5% extra credit maximum. Media credits are multiplied by 1 and added to your final grade.



## REQUIRED TEXTS

Sternberg, R. J. Cognitive Psychology, 3<sup>rd</sup> edition, 2002. Harcourt Brace College Publishers.



## RELATION BETWEEN LECTURES & TEXT

The lectures will be in step with the assigned list of readings. The lectures are intended to augment the text.

## Requests, Comments, Feedback, & Wishes

You may and you are encouraged to post any requests, comments, or ideas related to this course for the benefit of your classmates. You can also submit your requests, comments, feedback & wishes via my website (anonymous submissions from any computer worldwide).

## Resources

[www.orst.edu/~uttlib](http://www.orst.edu/~uttlib) Course website will have:

- an online syllabus
- lecture overheads
- study guides
- practice exam questions
- other links to help you succeed in the course
- hints on how to study and how to take exams

The website is also a place to visit to check your grades and progress.

**COURSE MAIL LIST [PSY34OFALL@lists.orst.edu](mailto:PSY34OFALL@lists.orst.edu)** You are required to subscribe to the course list and to monitor its mail. You are responsible for all announcements posted to the list. You can use this list to communicate with your peers, ask questions, help others. Coherent, course relevant messages including help provided to your peers in answering questions posted to the mail list may earn you extra credit points.

**Reserve Desk OSU Valley Library** Required text will be placed on Reserve in OSU Library.

**Psychology department computer lab** The computer lab has 20 Pentium-III class and 10 Celeron class computers. Pentium-III class computers have MS Office & SPSS installed on them. All computers are networked and have access to internet. Depending on

the availability of funds to pay for student attendants or availability of student volunteers, the lab may be open outside of the class hours for drop-in.

**OSU Computer Labs** OSU has numerous computer labs open either 24 hours or into the late night hours.

**FAQ** Frequently Asked Questions and Answers are posted on my website.

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## **COURSE POLICIES**

### **READ THESE POLICIES VERY CAREFULLY!**

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#### **MISSED TESTS/ASSIGNMENTS & LATE ASSIGNMENTS**

**The TESTS WILL BE GIVEN ON PUBLISHED DATES ONLY.** There will be no make-up examinations or tests. **MISSED EXAMS RECEIVE GRADE ZERO UNLESS YOU ESTABLISH** valid medical and other serious excuses (please note that parties, snowboarding trips, family and friend visits are not serious excuses). Documentation (i.e., a valid, current note from a medical practitioner) is required to establish a valid excuse within 10 days of the illness end.

If you are going to miss a test or exam for a valid medical reason, you must inform me *in advance of the test or examination*. No after-the-fact excuses will be accepted. Please email me at bob.utt1@orst.edu or call my office (737-1374).

A missed test or exam without a valid excuse (see above for a definition) will receive a grade of zero.

#### **CLASSROOM PARTICIPATION**

Your comments and questions are welcome in class. Classroom discussions are an important part of this course, and you are expected to share your questions, comments and ideas. Your regular attendance in class is required and expected.

**YOU ARE RESPONSIBLE FOR ALL MATERIALS, INCLUDING ALL ANNOUNCEMENTS AND CHANGES IN THE COURSE SCHEDULE, ETC., THAT ARE MADE IN CLASS, ANNOUNCED ON THE COURSE MAILSERVER AND/OR THE COURSE WEBSITE.**

**You are required to subscribe to the class mail-server. You are responsible for each and all announcements made on the server. If you have any difficulties signing up, CONTACT ME IMMEDIATELY.**

#### **STUDENTS WITH DISABILITIES**

Students with documented disabilities who may need accommodations, who have any emergency medical information the instructor should know of, or who need special arrangements in the event of evacuation, should make an appointment with the instructor as early as possible, no later than the first week of the term.

## ACADEMIC DISHONESTY

Academic dishonesty does not help you to learn the material, it is not fair to other students, and it will not be tolerated. You are responsible for reading and being knowledgeable of the University's policies on cheating and plagiarism (consult <http://www.orst.edu/admin/stucon> and <http://www.orst.edu/admin/stucon/regs.htm>).

**In general, any work you present for credit or grading in this course must be your own work UNLESS I give you specific permission to collaborate on specific work or a specific assignment in writing, or as part of my syllabus.**

**In particular, note that:**

**Academic dishonesty includes but is not limited to**

**"CHEATING"** (the intentional use or attempted use of unauthorized materials, information, or study aids);

**"FABRICATION"** (the intentional falsification or invention of any information including data, medical notes, excuses, etc.);

**"ASSISTING IN DISHONESTY OR TAMPERING"** (intentionally or knowingly helping or attempting to help another commit an act of dishonesty or tampering with evaluation instruments and documents); and

**"PLAGIARISM"** (intentionally or knowingly representing the words or ideas of another person as one's own).

**In a case of academic dishonesty, at least 30% will be deducted from your final percentage grade, but you may also receive an F for the course. A report of Academic Dishonesty will be filed both with the department and the Student Conduct Office as required by University policies. Academic dishonesty may also result in an expulsion from the University.**

## Lectures, Reading & Deadlines

WEEK	READINGS	TOPICS
#1 Sep 30	Chap. 1	Outline, Grading Policies, Academic Dishonesty, Introduction What is Cognitive Psychology? What are the roots of Cognitive Psychology? What are the guiding metaphors for Cognitive Psychology? Methods of Cognitive Psychology
#2 Oct 7	Chap. 2	An overview of cognitive neuroscience: The frontier of cognition. The lectures will review our understanding of components of the brain – the hardware used by the mind, how the brain learns, and how we know about the relation between the mind and the brain. <b>**OCT 11 SECTION TEST #1**</b>
#3 Oct 14	Chap. 3	Attention & Consciousness. What is attention? What's attention used for? How is it affected by development & aging, by tiredness, alcohol, ...?
#4 Oct 21	Chap. 4	Perception. Our mind is capable of picking-up stimulation by means of the senses, and to translate sensations into perceptions, into familiar visual objects or meaningful words and sentences. What is the difference between sensations and perceptions; how does the mind translate sensations into perceptions? How do we recognize patterns? <b>**OCT 25 SECTION TEST #2**</b>
#5 Oct 28	Chap. 5	Memory: Models & Methods
#6 Nov 4	Chap. 6	Memory Processes  <b>**NOV 8 SECTION TEST #3**</b>
#7 Nov 11	Chap. 7 & 8	Very long term memory: Memory for concepts & knowledge. Focus on the structure of knowledge, and on its retrieval. <b>NOV 9 LAST DAY TO WITHDRAW</b>
#8 Nov 18	Chap 11	Problem solving and creativity  <b>**NOV 22 SECTION TEST #4**</b>
#9 Nov 25	Chap. 12	Decision making and reasoning  <b>NOV 29 HOLIDAYS</b>
#10 Dec 2	TBA	TBA  <b>**DEC 6 SECTION TEST #5</b> <b>***** THIS COURSE HAS NO FINAL *****</b>

## DISCLAIMER

The syllabus is tentative and subject to change according to the needs and interests of the class.