Psychology 330 – Thinking

M & W, 12:00-1:20, Straub 146

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Description: The Psychology of Thinking will be introduced by many examples and class exercises. The development of thinking and problem solving skills, as well as different kinds of thinking and reasoning styles, will be discussed in depth. Typical failures in everyday thinking and reasoning will be described. Inter-individual differences in performance will also be explored.

My goals for this class are: 1) to give you theoretical and empirical knowledge of the principles of thinking and problem solving; and 2) to teach you how to apply those principles to real life problems. You will learn to evaluate your own and other peoples' reasoning processes critically.

This class requires some willingness to participate in classroom exercises.

Textbook: Ian Robertson's Types of Thinking, Routledge/Tyler & Francis (One copy is available at the Course Reserves at Knight Library.)

The class is based on this textbook. However, sessions will go beyond the book and will cover other topics that are not included in the textbook. So:

ATTENDANCE IS VERY IMPORTANT!

Course material will be posted on blackboard, so if you missed a class you may use the lecture notes on blackboard. Please note that quiz questions may be referring to material just presented in class!

***Note regarding GTF:** the GTF will be responsible for most logistic details of the course (e.g., grading, anything to do with blackboard, copies and handouts, etc.). Questions about those aspects of the course should be directed toward the GTF; questions about course content should be directed toward the instructor.

Schedule:	
Week 1 (Sept 27 & 2	 29):
	The first week will provide an overview of the term's most important topics. We will start with the latest research on thinking and memory / retention). Weeks 1 - 6 will cover general principles of human thinking.
Week 2 (Oct. 4 & 6)	In week 2 we will discuss two examples of structured thinking: problem solving and deduction. The notion of mental representation will be thoroughly investigated. (Chapters 2 + 4)
Week 3 (Oct. 11 &1	3):
	Week 3 will begin with the first midterm test. In the following lecture, breaking free of certain mental representations will be the key topic. We will address the questions, "What is creativity?" and "How can our creative potential be increased?" (Chapter 3).
Week 4 (Oct. 18 & 2	20):
	During this week the development of structured thinking will be presented. From early childhood we progress through several stages before we master basic thinking procedures. (Chapter 4)
Week 5 (Oct. 25 & 2	27):
X	The week will start with the second midterm test. Following that we will look at failures of thinking to which most people are highly susceptible. Examples of real life events that demonstrate those failures of thinking will be discussed. (Chapter 5)
Week 6 (Nov. 1 & 3):
	Week 6 will continue the topics of week 5.
Week 7 (Nov. 8 & 1	Weeks 7 through 10 will focus on inter-individual differences in thinking skills and styles. "Why do some people perform better than others?" is the key question of the next three weeks. The first topic will be to what extent differences in intelligence account for variability in performance. (Chapter 6)
Week 8 (Nov. 15 &1	
	The week will start with midterm three. Later this week we will cover expertise. We will look at chess players and violinists as examples of outstanding performance. Also we will watch how encountering a disaster affects thinking and problem solving.
Week 9 (Nov. 22 &	24):
	The final two weeks of the term will be devoted to other influences on our thinking processes. Clearly emotions play an important role in how we process information and how we arrive at conclusions. The effects of brain damage on thinking and decision making will be explored.

In week 10 the classic question of how language influences thinking will be discussed by looking at empirical evidence from animal language and cultural differences. The Sapir-Whorf hypothesis will be critically evaluated. The term will conclude with the final midterm test.

SCHEDULE IS SUBJECT TO CHANGE OVER THE COURSE OF THE QUARTER!

Assignments

Exams: There will be four exams in this class. Each exam will take about 40 minutes and will start at the beginning of the lecture. After conclusion of the exam the lecture will be resumed. Your lowest scored midterm exam will be dropped. The final exam is obligatory and cannot be dropped! There are four exams in total, but only three of them will count towards your grade.

Paper assignment: You will write <u>one</u> paper that shows how principles taught in class apply to real life problems. The paper should cover <u>all three</u> of the topics listed below. Please do not write more than 5 pages. You are encouraged to be clear and concise in your writing. The graders will be looking for quality, not quantity.

In class questions: Based on the latest research on learning and retention this class will adopt the strategy of frequent quizzing. That means at the beginning of EACH lecture you will be asked three short essay questions that may cover all previously taught content. At the end of each lecture you will answer three short essay questions based on that day's lecture. At the end of each lecture you will turn in these papers. Your grade will depend on the participation in this exercise according to the following scheme:

 $\begin{array}{l} 90-100\% \ = A \\ 80-89\% \ = B \\ 70-79\% \ = C \\ 60-69\% \ = D \end{array}$

This grade will account for 20% of your final grade. If you miss more than two lectures due to illness you will need to provide a doctor's note.

Topic 1: Choose three reasoning or thinking experiences from your daily life and describe them according to the categorization we have discussed in class. Which type of thinking did you use? How did you arrive at the conclusion?

Topic 2: Describe a problem that you successfully or unsuccessfully worked on. Which type of problem solving strategy did you use? What were the difficulties? Which mental representation did you use?

Topic 3: Pick one example from the media that demonstrates one of the typical thinking errors (availability, base rate neglect etc.). Describe the error and explain what proper thinking would have looked like.

Due dates: The paper is due on NOVEMBER, 19th!!

Grading: The three graded exams account for 50%, the paper for 30% of the final grade, and the in class questions account for 20% of the grade. The following chart shows the grading curve for the final grade.

Posting of Grades: Scores for papers and exams will be posted on blackboard throughout the course. Please do not wait until after final grades are submitted to dispute a grade; keep track of your scores as they are posted, and alert the instructor **in writing** (e-mail is fine) if you think that there has been a mistake in grading.

In-class exams: Exams will consist of multiple-choice questions. Exams will be closed book. More information on the exams will also be given in class as their scheduled day approaches. Exams 1-3 are not cumulative, the final exam covers the entire term; however, general principles and definitions discussed during the first few weeks will be relevant throughout the course. Thus, understanding key concepts introduced early on will be required to do well on all exams.

Missing Exams: Missed exams cannot be made up. However, the lowest score exam will be dropped.

Turning in Assignments: All papers must be submitted in hard copy, printed in black ink, either in class or to the TA.

The psychology office closes at 5:00 pm sharp. The receptionist strongly recommends handing in your paper by 4:00 pm. Often in large classes such as this, there will be a rush of people waiting to turn in their paper at 5, which means that there are often delays of 15 minutes or longer. The receptionist **will not** keep the office open after 5:00 pm, which means that if you wait until 4:45 to turn in your paper and there is a line, you may not get your paper in on time!!!

STAPLE YOUR PAPER! (no paperclips or folders, please).

Do not directly reference "the book" or "the lecture." Avoid using any language that assumes the reader participated in the course. Your paper should be written such that a stranger on the street could pick it up and understand it. If there is relevant material in the book or lecture, be sure to reference it in a way that would enable anyone to locate that information. (See an APA style manual for more information on proper referencing.)

If you have any comments or questions regarding the grading rubric or other concerns regarding the paper they should be addressed to the GTF, either by email or in-person during office hours.

Extra Help is Available: If you are not getting the grade you would like, in addition to speaking with the instructors, you may contact Academic Learning Services (http://als.uoregon.edu/) for assistance. They offer services aimed at increasing student performance by teaching effective studying habits and providing tutors to help with paper-writing. This is a particularly valuable resource for students who are having difficulty with any aspect (e.g., grammar, organization, APA style, etc.) of writing the papers for the course.

Students with Directory Restricted Access: This course includes required on-line participation that will involve use of electronic mail. If you have restricted access to your directory information and wish to have special arrangements made for this course, please notify an

instructor immediately.

Students with Disabilities: If you have a documented disability and anticipate needing accommodations in this course, please make arrangements to meet with an instructor soon. It would be wise to contact Disability Services (164 Oregon Hall, 346-1155). Also please request that the Counselor for Students with Disabilities send a letter verifying your disability by contacting the counselor: Molly Sirois, 346-3211, 164 Oregon Hall, 346-1073, <u>sirois@uoregon.edu</u>

Academic Honesty: Group discussion outside of class is (of course!) encouraged. However, all writing submitted for this class must be in your own words. Any outside sources must be properly cited and referenced, using APA format (see APA reference style guide on the last page of this syllabus). Students are expected to understand what constitutes proper citation, and may wish to visit the following website for more information on how to avoid plagiarism: http://www.goalquest.com/interactive/academic/cheatingandplagiarism/

Students may also find helpful the information on academic honesty described here: <u>http://studentlife.uoregon.edu/duck_guide/academic_honesty.html</u> by the Office of Student Life.

Students are strongly encouraged to speak with their instructor or TA if they have any questions related to this topic, before submitting the relevant assignment.

The consequences of academic dishonesty are published each quarter in the Schedule of Classes and will include case-appropriate academic sanctions, up to and including automatic failure of the course and referral to the Director of Student Conduct and Community Standards.

How to Prevent Computer Problems

<u>Computer problems are not allowed as an excuse for late submissions of assignments in this</u> <u>course.</u> Because of the availability of computers in campus labs (library, EMU, etc.), you are expected to submit assignments printed clearly and on time. Your greatest insurance policy against computer problems is to avoid completing your work at the last minute. If you save finishing a paper with only moments to spare, you are out of backup options if something goes wrong. If, for some reason, you have tried everything and you are still stuck, contact the instructor **BEFORE** the deadline. Some steps (this is not an exhaustive list) you can take to eliminate the possibility of a computer mishap causing your assignment to be late are as follows:

- 1. **"I lost my file."** Save your work every 5 minutes. Find the autosave function in your word processing program and set it to automatically save your document every 3 minutes or so. This way, your recovered document will not be more than 3 minutes of redoing away. Always back your work up (frequently) on a disk or electronically by a) storing on a remote server (go to Computing Help Center to learn how to do this) or b) sending files to yourself by email attachment.
- 2. "My printer jammed" OR "I ran out of toner" First Allow at least a half-day in advance to print your paper (while a computer lab is open). Have a backup plan for printing your document. By sending your file to yourself by email, you can pick it up on a school computer and print in a computer lab. While expensive, Kinko's is a 24-hour option for printing documents. Make arrangements with a friend, family member, or neighbor for getting help with printing. Ask them in advance: "If I were to have computer problems, would it be okay if I came over and used your printer? Is 2:30 in the morning okay with you? You could do the same at my house." Have a second toner cartridge on hand if you haven't changed yours recently.
- 3. **"Something happened to my computer and I don't know how to fix it." "My computer crashed."** Allow at least a half-day while computer labs are open to finish your work. Computer lab staff can help you if something breaks down. If you work at home, go to the computer help desk when you're on campus to ask questions about functions on your computer you don't understand. If you are unfamiliar with computers, make arrangements to work in a lab until you understand your home system better. (And, see #1 & #2).