

Cognitive Psychology: PSY3750

Winter Session Dec. 22, 2014-Jan. 11, 2015

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Course Overview: This course critically examines people's information-processing capabilities and limitations. Emphasis is placed on the theoretical principles that underlie the attention, perception, understanding, and memory of events, as well as current research methodologies and questions. The online delivery of this course requires your ability to use and integrate the material you will read in the textbook with the questions and assignments presented in class.

What to expect: This is an intensive class designed to provide a rich study of cognitive psychology. To complete this class in the time-frame allowed the speed and workload expectations will be challenging. Your knowledge of the materials will be expressed on discussion boards, short multiple choice quizzes, and essays. Please plan to give yourself enough time to complete these assignments, on average about 15 hours per week. This course runs from Dec. 22 to Jan. 11 – a total of 20 days (assuming persistent work through Christmas and New Year's Day, and all weekends). You are welcome to complete assignments before deadlines, however with the pace of the course assignments are no longer available for completion after the due date.

Course Objectives:

- i. Expose students to the various historical and modern perspectives of cognitive psychology.
- ii. To develop an appreciation for the scientific methods used with Psychology, cognition, cognitive-neuroscience, and related topics.
- iii. To examine and interpret the relevant empirical data in order to critically evaluate the various theories regarding cognition and cognitive-neuroscience.
- iv. To begin to comprehend the complexities of thought and mental activity from a variety of different psychological and philosophical perspectives. The diversity of Psychology stems from the recognition that a myriad of approaches are necessary in order to understand the complex beings that we are, with uniqueness of personality, gender, ethnicity, and cultural identity.
- v. To develop a sophisticated understanding of cognitive science within and beyond the discipline of Psychology.

Student Learning Outcomes (SLOs):

Students will be able to:

- i. Show mastery of several major cognitive theories with an emphasis on the basis of those theories using empirical evidence
- ii. In their written and oral assignments demonstrate the ability to recognize valid scientific methods and empirical support of ideas about the cognitive systems
- iii. Demonstrate their ability to evaluate sources by recognizing appropriate methods, techniques, and analysis
- iv. Demonstrate competent writing and oral skills in articulating their understanding of cognitive studies
- v. Show an understanding of multiple perspectives, including diverse ethnic, gender, and multicultural approaches

Required Materials: Smith & Kosslyn's *Cognitive Psychology: Mind & Brain*, ISBN 0131825089, published in 2006/2009 is the required textbook. It is CRITICAL that you have access to the textbook because it will be your principle source for all of the assignments we cover in class. Whether you buy, rent, borrow, share, eRead or otherwise, you absolutely must have access to the textbook for regular use.

Course Requirements & Grading:

Total	420 pts	100%
Quizzes	240 pts	57%
Essays/Discussions	180 pts	43%

Course Calendar:

Sect 1: 12/22 – 12/28	12/24 Wednesday before midnight: ❖ Discussions CH. 1 & 2 ❖ Quizzes CH. 1 & 2	12/28 Sunday before midnight ❖ Discussions CH. 3 & 4 ❖ Quizzes CH. 3 & 4
Sect 2: 12/29 - 1/4	12/31 Thursday before midnight: ❖ Discussions CH. 5 & 6 ❖ Quizzes CH. 5 & 6	1/4 Sunday before midnight: ❖ Discussions CH. 7 & 8 ❖ Quizzes CH. 7 & 8
Sect 3: 1/5 - 1/11	1/8 Thursday before midnight: ❖ Discussions CH. 9 & 10 ❖ Quizzes CH. 9 & 10	1/11 Sunday before midnight: ❖ Discussions CH. 11 & 12 ❖ Quizzes CH. 11 & 12

*Note: This calendar is subject to change based on the progression of the class and the restrictive winter calendar. Any changes will be noted on the class webpage, so please check it for updates.

Changes in Course Requirements: Since all classes do not progress at the same rate, the instructor may wish to modify the above requirements or their timing as circumstances dictate. However, the students must be given adequate notification. Moreover there may be non-typical classes for which these requirements are not strictly applicable in each instance and may need modification. If such modification is needed, it must conform to the spirit of this policy statement. All changes will be documented on the course website, and students are required to adhere to changes as they are presented online.

1. **Quizzes:** The quizzes are 20-question multiple choice tests that pertain directly to the material presented in each chapter. For each quiz you will be allowed up to 1-hour for completion. Quizzes are available on blackboard and can be completed at ANY time before the deadline. You are encouraged to complete the quizzes at least a day before they are due. Each quiz is available to be taken two times, and the highest grade earned will be applied to your grade. Because of the speed of this course, quizzes absolutely will be unavailable after the deadline without exception. 20 pts per chapter quiz x 12 chapters = **240 pts possible**.

2. **Essays/Discussions:** To encourage you to engage in meaningful discussions about the course material you will be required to post a short-answer essay/comment (1 original comment) and to post at least one response to other people's comments per READING. Each reading (a chapter or article) will have its own discussion thread, *so at a minimum post a comment and response on each thread*. Additional comments and responses are welcome, and can help you earn the full credit for that thread.

Here is what is expected to earn full credit for a **short-answer/comment**. Your comment should answer a question about the chapter in a way that allows other students to better understand the information in the chapter. Comments should describe and restate key ideas from the chapter, and use real-life examples or anecdotes to clarify what they mean. While comments can vary in length and subject matter, a comment should range from 100-500 words on a given issue with the emphasis on helping other people to understand information from the text.

The comment should directly address a question designed to illustrate some section of the material. You can use a question I provide or come up with your own question if there is a particular issue in the chapter you are interested in.

POSTING COMMENTS

Chapter 1 Questions (Use one or more of these and/or come up with your own!)

- Who was involved in the early evolution of cognitive psychology and what were their major contributions?
- What are the relative advantages and disadvantages of using behavioral vs. neural methods for studying cognition?
- How and why was the cognitive movement was predicated upon computers?
- How do computer simulation, process, and neural-network models compare?

Chapter 2 Questions (Use one or more of these and/or come up with your own!)

- What is bottom-up processing and how does the processing of visual features include spots and edges, colors and shapes, and movements and textures?
- How is the jumble of sensory information organized to be able to detect shapes and patterns?
- How does our cognitive systems “fill in the gaps” such as with illusory contours?
- How does our perceptual system accomplish facial recognition, and what neurological evidence suggests that it is a unique perceptual ability?
- How do the “what” and “where” pathways interact simultaneously to form holistic perceptions?

Chapter 3 Questions (Use one or more of these and/or come up with your own!)

- What is the difference between failures of selection in space and failures of selection in time?
- What are automatic and controlled processes of attention and how are they used?
- How do early versus late attentional selection theories contrast?
- How do ERP's, PET scans, fMRI's, and TMS help show where and how attentional systems work?
- Using the evidence presented in the chapter, how should legislators approach the issue of using cell phones while driving?

Chapter 4 Questions (Use one or more of these and/or come up with your own!)

- What is knowledge how does it lead to inferences during perception?
- How are images modality-specific, and what neurological evidence is available to support that claim?
- What is category knowledge and why does it has inferential power?
- What is the relationship between perception and the representation of an idea in memory?
- How are representations dynamic and adaptive?

Chapter 5 Questions (Use one or more of these and/or come up with your own!)

- How does the case of H.M. relates to the discovery of the dissociations between different forms of memory?
- What is the process of encoding and how do elaboration and distributed practice help encoding?
- How do cues facilitate retrieval through pattern completion and recapitulation?
- How do perceptual priming and conceptual priming provide evidence for nondeclarative memory?
- What are the most important ideas for improving recollection with long-term memory?

Chapter 6 Questions (Use one or more of these and/or come up with your own!)

- How does the concept of working memory fit within a computer metaphor?
- How does the Baddeley-Hitch Model involves the central executive, the phonological loop, and the visuospatial scratchpad?
- What are arguments either *for* or *against* the two distinct storage systems (auditory and visual) and how would they fit within a dual-task coordination system?
- What is the role of the prefrontal cortex in the storage and control of memory?
- What is the relationship between working memory, consciousness, and problem solving?

Chapter 7 Questions (Use one or more of these and/or come up with your own!)

- What do the case studies of Phineas Gage and Dr. P suggest about head injuries?
- What is executive attention, and how it is distinctive?
- How is executive attention is involved in categorization?
- What are the costs for switching attention, and what is the framework that underlies it?
- What is the process of sequencing and how does it apply to executive functions?
- How does the research on task switching imply for dual-task or multi-tasking to accomplish daily tasks?

Chapter 8 Questions (Use one or more of these and/or come up with your own!)

- What is emotion, and how it is different from mood?
- What are the different components of the circumplex model of emotion, including arousal and valence?
- How do we measure emotion through mood induction and evocative stimuli, and how does that relate to measuring emotion directly and indirectly?

- How does emotion relate to instructional and observational learning?
- What is the relationship between emotion and attention, including the affective primacy hypothesis?
- How does emotion influence cognitive processing and memory?

Chapter 9 Questions (Use one or more of these and/or come up with your own!)

- What do decision trees represent, including alternatives, beliefs, and consequences?
- What types of stimuli and methods have been used in utility model research, what makes them effective?
- How could decision making be improved from a cognitive perspective?
- How are transitivity and procedural invariance violated by human thinking?
- How do time and emotions play a role in decision making through temporal discounting and dynamic inconsistency, and what is the role of instant gratification?
- What are judgment heuristics: including availability, representativeness, and simulation heuristics?

Chapter 10 Questions (Use one or more of these and/or come up with your own!)

- What is problem space theory?
- How are problem solving heuristics, including random search, hill climbing, means-ends analysis, and verbal protocol analysis, applied to problem solving?
- How do expert problem solvers differ from novices in their organization and encoding of the problem, and direction of search?
- What are the major strategies used in general inductions and how do they work?
- What are categorical and conditional syllogisms?
- Imagine being a politician trying to convince voters to support a new policy. How could you direct voters to understand and adapt your solution is the best one? (I.e., direct their problem solving to match your own.)

Chapter 11 Questions (Use one or more of these and/or come up with your own!)

- What is the difference between movement and action, and how does it relate to the perception-action cycle?
- Using evidence from the cited studies, how does motor priming inform conceptions of mental representation?
- How does imitation develop in infants?
- How does intention affect the cognitive components underlying imitation?
- How do mirror neurons support perception-to-action transfer facilitates in later performance?
- How do the kinematic patterns in point-light displays facilitates the perception of biological motion?
- How do physical behaviors and perception of actions affect cognitive states?

Chapter 12 Questions (Use one or more of these and/or come up with your own!)

- What are the different levels of language representation, including the phoneme, morpheme, word, syntactic, and discourse levels?
- What are the effects of different types of aphasia, including non-fluent, or Broca's aphasia and fluent, or Wernicke's aphasia?
- How do a spectrogram and the phoneme restoration effect demonstrate the coarticulatory nature of speech?
- What is the nature of interaction between the three levels of language production: message levels, grammatical encoding level, and phonological encoding level, including grammatical encoding subprocesses?
- What is evidence for or against the use of semantic representations (network) of word meaning?
- What is the relationship between language and thought?

Comment grades will earn up to 10 pts per chapter with:

- 9-10 pts for accurate, clear, thorough and original comments that substantially demonstrate knowledge of the assigned chapter (or multiple comments on a chapter showing fair to moderate knowledge of the chapter on a variety of topics)
- 6-8 pts for comments that effectively address a question, but with either accuracy, clarity, overly terse and/or descriptions that are redundant with other posts (or multiple comments on a chapter showing poor to fair knowledge of the chapter on a variety of topics)
- 3-5 pts for comments that are very terse and don't effectively illustrate understanding of the chapter, highly redundant with other posts
- 0-2 pts for comments that demonstrate little or no knowledge of the chapter and/or do not add any substantial

information on a topic, or are plagiarized

Be sure with your comment to SPECIFY *what is the question you are answering!* It is VERY strongly recommended that you rely heavily on your own words instead of direct quotes. The *use of direct quotes from the text may reduce your grade* if not appropriately cited (using APA style) and/or if quotes are given without substantial and accurate interpretation of the meaning. Again, the assignment is for you to clarify your understanding and knowledge of the chapter, not to demonstrate what the author of that chapter understood! Quality is more important than quantity for posts. You are encouraged to post with depth, clarity, and comprehensiveness in one or more posts to enhance your score. Often the highest earners post 1-3 comments each with a well defined question, a clear response, and very clear use of material from the text (all in one's own words).

POSTING RESPONSES

For **responses** to other people's comments you may contribute in any manner you wish, but responses should contribute meaningfully to the discussion (i.e., be more meaningful than a simple "I agree/disagree"). Opinions, clarifications, additional questions are all acceptable forms of responses. As with the comments, you are welcome to respond more than once on a given chapter to increase your chance of earning maximum credit. You can expect that I will also be participating in these discussions as I am looking forward to interacting with you!

Responses: (1) state your opinions, thoughts, questions on another person's comment.

Again quality is more important than quantity. However, responses are meant to create and continue discussion. You are encouraged to use responses to bring in outside sources, video links, news-stories, anecdotes from your life, and your own well-articulated ideas to earn more points. Often the highest earners post 2-5 responses per chapter, with at least 1 highly deep and thoughtful response.

There are two rules about these discussions: (1) Quality is more important than quantity in terms of grading; (2) Be respectful to others. If your comments are hurtful or disrespectful you may be censured or prohibited from the discussion (forfeiting that portion of your grade). (up to 15 pts per chapter discussion, with 10 possible per comment and 3 per response) **180 pts possible**

Blackboard: To successfully complete this course you will need access to Blackboard (<http://wpunj.edu/bb/>), the instructional technology learning center for William Paterson University. All of the chapter quizzes listed in the course calendar are offered on Blackboard, and can only be completed online. **It is your responsibility to gain access to blackboard and become proficient in using it. Online tutorials for blackboard are available on the website, and/or the Instructional Technology Center at WPUNJ can be contacted with any questions or requested for remediation using this system.**

Appropriate Classroom Behavior

While this class is to be conducted online, if the situation arises, here is the university policy on classroom behavior. In this class students are expected to observe the courtesies expected of responsible William Paterson University students. Any classroom behaviors which interfere with your instructor's ability to teach, or distract from the concentration of other students, are inappropriate and unacceptable in this class. Inappropriate behaviors include (but aren't necessarily limited to):

- Talking to other student(s) in a manner that is disruptive to the class
- Showing disrespect towards classmates or professor
- Using inappropriate language or non-verbal communication
- Using electronic devices (including a laptop, cell phone or PDA) for non-academic purposes
- Violence of any kind (physical, emotional, verbal)

Students whose actions detract from the learning of any other person in the class will be asked to stop the behaviors. Students who continue to be disruptive may be barred from the class and may face formal charges and academic dismissal.

Late policy, missed tests, etc : Assignments and tests are to be completed on or before the due date. *If a student misses an assignment* without prior consent and requires a make-up then a **documented valid excuse** will be required before a make-up will be scheduled. Make-up assignments must be scheduled and completed before the last day of

class to receive credit. Scheduling a make-up is the responsibility of the student, and failure to do so will result in failure on the assignment. Examples of valid excuses are documented illnesses, tragedies, and accidents; invalid excuses such as sleeping late, or working on another class will not be accepted, as per the discretion of the professor.

Rebroadcasting disclaimer: Materials presented in this class are expressly forbidden for use profiteering, public rebroadcasting, youtube posting, facebook sharing, or any other activity not specifically educational and part of this class.

Students with Disabilities: In accordance with the Americans with Disabilities Act, students with bona fide disabilities will be afforded reasonable accommodation. If you have a specific disability that qualifies you for academic accommodations, please notify me and provide certification from the Office of Disability Services. Reminders to the professor before exams are helpful! The Office of Student Development, specifically the Coordinator of Disability Services can be reached at (973) 720-2853 in Morrison Hall, Rm 132.

Academic Honor Code: Please maintain the highest levels of academic integrity as you attend this and all of your courses. We want you to learn. Your parents want you to learn. Your friends want you to learn so that they have someone to ask questions of, if they haven't learned. Every one of you is capable of doing brilliantly in this class if you are willing to put in the effort. However, to do that you have to do the assignments and not cheat, plagiarize, buy old exams off eBay, or do anything else to demean yourself or your education. All students are expected to abide by the University's policy on Academic Honesty which is outlined on the WPUNJ website:

http://ww2.wpunj.edu/catalog/undergrad_2003_05/2GenerralInfoNew.pdf

Cheating, plagiarism, collusion and lying are serious violations and students should understand fully what constitutes each. Students' work is routinely checked to ensure that this policy is enforced. If you are unsure about any definitions or have questions, please ask before you take a chance!

Turnitin Use Policy: Plagiarism is using somebody else's ideas and/or statements in your writing without correctly identifying and citing those sources. As one resource for helping you avoid plagiarism, your written work in this class may be submitted to Turnitin.com, or a similar detection method, for an evaluation of the originality of your ideas and proper use and attribution of sources. By taking this course, you agree that all assignments may be subject to some form of originality review.

Still need more information? Check out everything available on Blackboard!!!