

Psychology 840, Cognitive Bases of Behavior.
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Professor: Dr. Catherine Clement

TEXT

•Reisberg, D. *Cognition: Exploring the Science of the Mind*, 5TH Ed. New York, NY: WW, Norton. 978-0-393-19851-5. (You must have this edition of the text).

COURSE DESCRIPTION AND STUDENT LEARNING OUTCOMES

In this course we will examine psychologists' investigations of human cognition and we will examine links between these investigations and topics related to psychological practice. Cognitive psychologists ask questions about how people attend to their environment, how they acquire knowledge, how they store, organize, and retrieve knowledge in memory, how they reason, solve problems, and make decisions, and how they produce creative products.

Your goals as a student in this course are to:

- comprehend the principle questions asked in investigations of cognition, the methods used, and the basic findings of these investigations so far.
- comprehend and analyze research that relates cognitive processes to social processes, academic achievement, and certain types of abnormal functioning.
- analyze the relationship between evidence and conclusions – be able to analyze how the methods used provide evidence for conclusions drawn about cognition.
- be able to integrate and write about research findings.
- be able to apply cognitive psychological research and theories to your self-understanding, your daily activities, and your psychological research and practice.

COURSE DESIGN AND REQUIREMENTS

Course Design

This is not a lecture course. Rather, mastery of course material and achievement of course goals will come through: studying the readings, participating in the Discussion Board and Blog discussions, completing the paper assignment, and working on study questions. All course activities will take place online.

Readings

Required readings will include chapters from the Reisberg text, and additional posted articles and notes. The course paper will also require reading journal articles that you locate.

Blogs

For each unit you will post blog responses to questions that I post. These questions do not necessarily have a “correct” answer, but rather, they are typically questions about personal examples related to unit topics. For each unit there will be two blog assignments: the first, “opening” blog assignment will be due the first day of the unit, and the second, “application” blog, will be due later in the unit. Note, there will be an additional, special, blog assignment for Unit 1. This assignment requires you to go to a website and participate in some attention demonstrations.

Discussion Board Activities

The Discussion Forums provide you with an opportunity to develop questions and talking points based on the readings (the text and the articles), and to respond to questions posted by others, in order to clarify understanding of course concepts.

You are required to post at least one quality **question, talking point, or response** for each unit, though **over the course of the semester, at least two of your Discussion Board posts must be responses to another student's question or talking point.**

The required posts must be made during the week the topic is being covered (see schedule for specific deadlines). Of course, you can post as many questions, talking points, and responses as you would like, as long as you have met the minimum requirement.

Questions should identify issues or areas that you feel need further conversation or clarification. For example, you might ask for clarification of the distinction between two concepts or theories presented in the text or in a journal article. Your question should attempt to spell out the nature or source of your confusion, e.g. say why the two different concepts seem similar to you. Sometimes students feel like they don't have any questions. A good way to realize that you *do* have a question is to try to answer the posted study questions in your own words, or to try to explain concepts in the text or articles in your own words. When you do this you may find that you don't fully understand the concept after all. Good questions invite reflection, discussion, and explanation rather than one word, yes/no responses.

Talking points should identify concepts that you learned from the material for that week that you consider valuable or interesting, and WHY. Talking points should make specific reference to the course material and should clearly spell out why you thought the concept important or interesting.

Responses to questions or talking points should help clarify the course material for the class. A good response is brief enough to be easily read, yet provides a substantive response and makes reference to material from the text or articles. The information included in the response should be accurate and reflect comprehension, application, or analysis of the readings.

Asking questions, creating talking points, creating responses, and reading posts made by others, and will be your primary avenue for clarifying course material.

Exams

There will be four online exams. Exams will cover textbook chapters, journal articles, my posted notes, and Discussion Board content. Exams will consist of multiple-choice questions. Exams are closed book and closed note. The exams will be timed (you will have approximately 1 hour). You will need to be well prepared in advance so that you can complete the exams in the time allotted.

Paper Assignment

You will write a paper that addresses one of several questions that I provide. The paper will require you to discuss articles from peer reviewed psychology journals that present a study related to the question you chose. Details are in the *Paper Assignment* document.

Please Note: Students in all psychology courses are expected to use correct grammar, spelling and composition in written assignments. **These elements of writing will play a significant role in your paper grade.** If you would like free help with your writing, you may visit the Noel Studio, in the Library: The Noel Studio for Academic Creativity is a free resource for the ECU community, including graduate and undergraduate students. At the Noel Studio, a trained consultant will work with you on any piece of writing, at any stage in the process from brainstorming to finished product. Consultants can also help you develop effective research strategies. For more information, visit the Noel Studio website at <http://www.studio.ecu.edu/> or call 859-622-6229.

STUDY QUESTIONS

For each unit I have provided a list of questions to answer for yourself as you study the readings for each unit. You are not required to submit answers to these questions. Rather use these questions to aid your mastery of the material and as a partial study guide for the tests (tests may cover material not explicitly mentioned in the study questions). If you have trouble answering a study question, post your question about it on the Discussion Board.

SUMMARY OF LEARNING OUTCOMES AND ASSESSMENT METHODS

Learning outcome	Assessment method
•comprehend the principle questions asked in investigations of cognition, the methods used, and the basic findings of these investigations so far.	Exams, blogs, course paper, Discussion Board posts.
• analyze research that relates cognitive processes to social processes, academic achievement, and certain types of abnormal functioning	Exams, course paper, Discussion Board posts.
• analyze the relationship between methods and outcomes, and integrate research findings.	Exams, course paper, Discussion Board posts.
• apply research findings and theoretical ideas in cognitive psychology to your self-understanding, your daily activities, and your psychological research and practice.	Blogs, course paper.

HOW TO DO WELL IN THIS CLASS

- 1. Allow enough study time.** *It is easy to underestimate the difficulty of an online course.* An online course requires a great deal of self-discipline. You must plan an appropriate amount of study time in order to be able to assimilate this material. *It is also easy to underestimate the speed and intensity of a summer class.* We are packing 15 weeks of material into 6 weeks. Thus your usual study time per day needs to be altered accordingly.
- 2. Keep up with the reading.** The material cannot be mastered quickly and all at once. Many of the chapters and articles are long and complex. You must read regularly, and read sections more than once. After you have read each text chapter, answer the study questions for that chapter, and then check your answers. For each journal article, identify the evidence (empirical and theoretical) for conclusions drawn. Use the Discussion Board to ask questions about the material. *Note: You cannot wait until the last minute to read the unit material since once a test becomes available for a unit, you cannot ask questions on the Discussion Board about that unit.*
- 3. Explain the material to yourself as you read.** The material cannot be automatically understood, and will not just seep its way into your head. You must actively figure it out as you read and study. After you read a section, close the book and attempt to write a summary, explanation of the key points, and /or definitions of terms. Then go back and verify your understanding.
- 4. Generate questions.** Generate and keep a list of questions you have as you read and think about the course material. True knowledge only comes from an active engagement with the material. Then ask your questions on the Discussion Board.
- 5. Pay attention to the Discussion Board.** Discussion of student questions will be a key place to get clarification on class concepts. Prolonged discussions should be looked upon as learning opportunities rather than digressions. Exams will include questions about Discussion Board discussions.
- 6. View the field as ongoing investigations, not as solved puzzles.** There will often be alternative theories and approaches to understanding a concept. Research continually alters scientists' understanding of a field.
- 7. Relate the material to your daily and professional life.** Every topic concerns thinking processes we use everyday. Actively relate the material to how you learn as a student, how you carry out your job tasks, how you solve problems, and how you make decisions in your life. Also, think about how difficulties with these thinking processes, or how particular patterns of thinking, may play a role in learning disorders and mental health issues. Finally, think about how the course material relates to the topics of your own research.
- 8. Use the Glossary.** Much of the jargon that appears in the text chapters will be new. Use the Glossary at the back of the book to look up terms as you read.
- 9. If you find yourself doing poorly in the course:** Ask additional questions on the Discussion Board about the course material and about study strategies.

COMMUNICATION

A. Students must read the **Announcements** site daily for postings from me. These postings may include changes in assignments, scheduling etc.

B. In addition to the Discussion Board Forums dedicated to the *concepts* covered for each unit, there will be a forum for questions you have about course procedures and assignments. All questions you have about the course material, course procedures and assignments must be posted on the Discussion Board in the appropriate Forum. Many students will have the same questions, so by using the Discussion Board everyone can benefit. Email communication should be used for personal matters.

EVALUATION AND GRADING

Exams: 68% of course grade; Paper: 18%; Discussion Board and Blogs: 14%.

A = 90%; B = 80%; C = 70%

DISABILITY ACCOMMODATIONS STATEMENT

A student with a “disability” may be an individual with a physical or mental impairment that substantially limits one or more major life activities such as learning, seeing or hearing. Additionally, pregnancy or a related medical condition that causes a similar substantial limitation may also be considered a disability under the ADA.

If you are registered with the Office of Services for Individuals with Disabilities, please obtain your accommodation letters from the OSID and present them to the course instructor to discuss any academic accommodations you need. If you believe you need accommodation and are not registered with the OSID, please contact the office in the Whitlock Building Room 361 by email at disserv@eku.edu or by telephone at (859) 622-2933. Upon individual request, this syllabus can be made available in an alternative format.

ACADEMIC INTEGRITY

Students are advised that EKU's Academic Integrity Policy will strictly be enforced in this course. The Academic Integrity policy is available at www.academicintegrity.eku.edu. Questions regarding the policy may be directed to the Office of Academic Integrity.

Papers must be honest!

1. You must accurately represent the research findings in articles that you cite. This means you must carefully read the article’s Method and Results sections. **Do not misuse an article by attributing to the article a finding that was not there.** All claims must be supported by evidence.

2. No plagiarism. Plagiarism includes but is not limited to:

*Claiming as your own work a paper written by another person

*Turning in a paper that uses someone else’s ideas but does not give proper credit to that person for those ideas.

***Turning in a paper that uses the exact, or almost exact, words of another author even if credit is given in a citation.** *Please be very careful with this. Changing a few words in a sentence taken from another author is still plagiarism, even if you cite. If you want to use an author’s words, then you must use quotation marks and cite with page numbers. But for assignments in this class quoting is strongly discouraged. Describe articles in your own words.*

Papers must be original to this class: It is not acceptable to turn in a paper you have previously written for another class or another purpose.

Plagiarism and other violations of academic integrity are grounds for failure in the course.

COURSE SCHEDULE

UNIT DATES	TOPIC	READINGS	ASSIGNMENTS AND DUE DATES	
Unit 1: 5/23-6/2	•Roots of Cognitive Psychology; •Attention; •Working Memory	Text: Chapter 1, Chapter 4, Chapter 5 to through 178 top. •Baddeley (1992). •Tang & Posner (2009). •Martinussen et al. (2005). •Holmes et al. (2010). •Diamond (2012) •Mrazek, Franklin, Phillips, Baird, & Schooler. (2013)	Attention Web Activities/Blog Opening Blog: Application Blog: Discussion Board: Unit 1 Exam:	5/23 Midnight 5/23 Midnight 5/31 Noon 5/31 Midnight 6/2 Midnight
Unit 2: 6/3-6/13	•Long Term Memory	Text: Chapter 5, 178 to end, Chapter 6; Chapter 7 •Roediger & Karpicke (2006) •Hambrick & Engle (2002) •Schacter (1999). •Ruci, Tomes & Zelinski (2009) •Sumner (2012).	Opening Blog: Application Blog: Discussion Board: Unit 2 Exam:	6/3 Midnight 6/10 Noon 6/10 Midnight 6/13 Midnight
			Paper Reference list: 6/12 Midnight	
Unit 3: 6/14-6/22	•Categorization •Language	Text: Chapter 8 thru pg. 311 top, Chapter 9 •Quinn, Mason & Macrae (2009) •Robinson-Reiegler & Robinson – Riegler (2012) •Chiappe et al. (2000). •Bialystok, E. (2015)	Opening Blog: Application Blog: Discussion Board: Unit 3 Exam:	6/14 Midnight 6/20 Noon 6/20 Midnight 6/22 Midnight
			Paper: 6/27 Midnight	
Unit 4: 6/23-7/1	•Judgment •Problem Solving and Intelligence	Text: Chapter 11 (Skip 423-428 top), Chapter 12. •Zelinski & Larson (2002). •Lerner & Weber (2013) •Anderson et al. (2011). •Kim, Vincent & Goncalo (2013).	Opening Blog: Application Blog: Discussion Board: Unit 4 Exam:	6/23 Midnight 6/29 Noon 6/29 Midnight 7/1 Midnight

Notes:

*Exams will become available at 6:00 am of the day they are due.

*All other assignments can be completed earlier than the posted due date, within the week of the unit.

*Discussion Board: the due date is the latest possible date for the *required* posting. You may continue with additional postings up until the test becomes available. **You may not add any posts once the test is available.**

Note, I will not respond to any questions posted after 5:00 pm the day before the test is available.

Detailed List of Articles for Each Unit.

Always read the textbook chapter before reading the articles related to the chapter topic. Articles are listed in the order in which they should be read.

Attention and Working Memory

- Baddeley, A. (1992). Working memory. *Science*, 255, 556-559.
- Tang, Y. Y. & Posner, M. I. (2009). Attention training and attention state training. *Trends in Cognitive Sciences*, 13, 222-227.
- Martinussen, R., Hayden, J., Hogg-Johnson, & Tannock, R. (2005). A meta-analysis of working memory impairments in children with attention-deficit/hyperactivity disorder. *Journal of the American Academy of Child & Adolescent Psychiatry*, 44, 377-384.
- Holmes, J. Gathercole, S. E., Place, M., Dunning, D. L., Hilton, K. A., & Elliott, J. (2010). Working memory deficits can be overcome: Impacts of training and medication on working memory in children with ADHD. *Applied Cognitive Psychology*, 24, 827-836.
- Diamond, A. (2012). Activities and programs that improve children's executive functions. *Current Directions in Psychological Science*, 21, 335-341.
- Mrazek, M. D., Franklin, M. S., Phillips, D. W., Baird, B., & Schooler, J. W. (2013). Mindfulness training improves working memory capacity and GRE performance while reducing mind wandering. *Psychological Science*, 14, 776-781.

Long Term Memory

- Roediger, H. L., & Karpicke, J. D. (2006). Test-enhanced learning. *Psychological Science*, 17, 249-255.
- Hambrick, D. Z. & Engle, R. W. (2002). Effects of domain knowledge, working memory capacity, and age on cognitive performance: An investigation of the knowledge-is-power hypothesis. *Cognitive Psychology*, 44, 339-387.
- Schacter, D. (1999). The seven sins of memory. *American Psychologist*, 54, 182-203.
- Ruci, L., Tomes, J. L., & Zelenski, J. M. (2009). Mood-congruent false memories in the DRM paradigm. *Cognition and Emotion*, 23, 1153-1165.
- Sumner, J. A. (2012). The mechanisms underlying overgeneral autobiographical memory: An evaluative review of evidence for the CaR-FA-X model. *Clinical Psychology Review*, 32, 34-48.

Categorization and Language

Quinn, K. A., Mason, M. F., & Macrae, N. (2009). Familiarity and person construal: Individuating knowledge moderates the automaticity of category activation. *European Journal of Social Psychology, 39*, 852-861.

Robinson-Riegler, G. & Robinson-Riegler, B. (2012*) Reading and comprehending text (Chapter 10, 400-445; skip pgs 418-422). In *Cognitive Psychology: Applying the Science of the Mind*. Pearson.

Chiappe, P., Hasher, L., & Siegel, L.S. (2000). Working memory, inhibitory control and reading disability. *Memory & Cognition, 28*, 8-17.

Bialystok, E. (2015). Bilingualism and the development of executive function: The role of attention. *Child Development Perspectives, 9*, 117-121.

Problem Solving, Creativity and Judgment

Zelinski, J. M. & Larsen, R. (2002). Predicting the future: How affect-related personality traits influence likelihood judgments of future events. *Personality and Social Psychology Bulletin, 28*, 1000-1010.

Lerner, J. S., Li, Y., & Weber, E. U. (2013). *The financial cost of sadness.*, *Psychological Science, 24*, 72-79.

Anderson, R. J., Goddard, L. & Powell, J. H. (2011). Social problem-solving and depressive symptom vulnerability: The importance of real-life problem-solving performance. *Cognitive Therapy Research, 35*, 48-56.

Kim, S. H., Vincent, L. C. & Goncalo, J. A. (2013). Outside advantage: Can social rejection fuel creative thought? *Journal of Experimental Psychology: General, 142*, 605-611.