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Canvas:Georgetown.instructure.com   **Twitter: @paulsmerritt #merrittcognition**

About your Instructor: I am in my third year as an Assistant Teaching Professor in the Department of Psychology at Georgetown University, prior to my appointment here I was an Assistant Professor at Clemson University and Texas A&M –Corpus Christi. Prior to that I was a post-doctoral fellow in Cognitive Psychopharmacology at George Washington University. I completed my Ph.D. in Cognitive Psychology & Cognitive Neuroscience at Colorado State University in 2002.   My areas of research include: the effects of nicotine withdrawal on cognition, applications of metamemory to learning and teaching and perceptions of masculinity and femininity in sexual minorities. I promise the semester will be interesting and you will learn quite a bit of actually useful stuff. I am constantly trying out new ideas in the classroom, some of these will be great, some will be less so, but the goal is for you to learn as much as possible, to be able to apply the material outside of the class and, to have some fun!

Course Web Page: There is a Canvas page for Cognition which contains the course syllabus and schedule, course announcements, lecture notes and links to web pages dealing with psychology. In addition, exam scores and point totals will be posted there. You can login to Canvas at Georgetown.instructure.com. I highly recommend downloading the Canvas app – it will provide you with notifications about due dates, new postings and announcements. I highly recommend downloading the canvas app top keep up with course information. Please email me directly at my Georgetown email address, as I do not get the Canvas emails directly and they will languish forever.

Course Overview and Objectives: PSYC 130 surveys fundamental concepts and current issues in the field of human cognition. Topics covered include attention, learning, memory, decision making, and problem solving. A primary goal of the course is to familiarize you with the basic concepts and research findings in these areas of cognitive psychology, but we will also consider real-world examples and applications of the material in order to emphasize the relevance of the concepts to our daily lives. As a result of learning about human cognition, you will gain a better understanding of human thinking and how it relates to mental health fields, clinical and medical diagnosis, education, marketing and advertising, and law, among other things. In addition, you will learn techniques to improve your own learning, memory, problem solving, and decision making. By learning about specific research methods in cognitive psychology, you can also better understand scientific thinking and experimentation. Finally, in studying cognitive psychology you gain insight into one of the most exciting and expanding disciplines today, that concerning the workings of the human mind.

Objectives: By the end of the course you should be able…

1. ***To gain a thorough understanding of the methodology used in conducting experiments in Cognitive Psychology.***
2. ***To know, comprehend and analyze results from the Cognitive Psychology literature.***
3. ***To understand and be able to clearly explain the major fields and findings in Cognitive Psychology.***
4. ***To read, analyze and synthesize findings from the literature sufficiently to motivate and describe a specific research hypothesis and establish a protocol for investigating this hypothesis.***

Course Format: PSYC 130 will be taught at a level suitable for mid-level undergraduates. Although there are no prerequisites, previous coursework in experimental psychology may be helpful. No prior knowledge of cognitive psychology is assumed. Much of the course will be presented in lecture format, but there will also be many demonstrations, exercises, examples, and illustrations to promote a deeper understanding of the material.

Course Material: The textbook for the course is *Cognitive Psychology, 4e by E. Bruce Goldstein.* All lecture materials will be presented videos posted to Canvas.

Note About Email: I do not use the Canvas email so ***do not email me via Canvas.*** Email me directly at paul.merritt@georgetown.edu. Also keep in mind that I have many more students than other faculty at Georgetown, as such I cannot manage to personally respond to every email. Often, I will post an announcement answering questions sent via email. There are several emails I will not respond to at all:

1. A question which is answered on this syllabus
2. Asking me where my office is or when my office hours are (see #1).
3. Asking to reschedule the final.
4. Asking if we went over anything important in class.
5. Emails about the exam, the night before the exam.

If I don't respond, there's a good chance your email got buried in the daily onslaught – if something try sending another email.

Further Reading: All of the information you need to know for the class will be given in lecture or in the textbook, but if you would like additional information on a particular topic, I suggest that you consult one of the following textbooks: *Human Memory,* by Neath & Surprenant; *Human Memory: Exploration and Application,* by K. Haberlandt, *Cognitive Neuroscience*, by M. Gazzaniga, *The Oxford Handbook of Human Memory,* Tulving & Craik, Eds.

Your Responsibilities: You will be responsible for keeping up with lectures and readings and completing the quizzes, assignments and exams on time. The course is somewhat self-paced, the weekly quizzes will be open two weeks prior to their due date

so you can move ahead, but you cannot get behind. The quizzes will close automatically at the due date so plan ahead.

Evaluation: Grades will be determined using a straight scale. There will be three exams worth 100 points each as well as a *cumulative final*. Each test will consist of multiple choice questions and will primarily test your *conceptual understanding* of the material rather than specific details like names and dates. There will also be weekly reading quizzes given during the semester – each quiz question you answer correctly will be worth 1 point and you can earn up-to 100 points on the weekly reading quizzes. There will be no make-up quizzes.

Midterm	100 points
Final Exam	150 points
Quizzes	150 points
Demonstration Assignments	100 points
Cognition in the News	50 points

Total Points Possible   550

Quizzes: Each week you will watch a few brief online lectures each followed by a brief quiz. Once you complete the lecture and quiz. You will also complete a longer quiz based on the chapter readings assigned for each module. All of the quizzes for a given module will be due by midnight on Sunday of each week.

Cognition in the News:
Demonstration Assignments:
Grades will be assigned according to your total points awarded, including all course work and any extra credit that may become available throughout the term. Using the items outlined above, the point totals needed for each grade are:

522+ = A
495+ = A-
478+ = B+
456+ = B
440+ = B-
423+ = C+
401+ = C
385+ = C-
368+ = D+
357+ = D

Academic Integrity: All GU students are bound by the honor code and honor pledge, in particular this applies to doing all of your online work yourself:

The Georgetown Student Pledge

> *In pursuit of the high ideals and rigorous standards of academic life I commit myself to respect and to uphold the Georgetown University honor system:*
>
> *To be honest in every academic endeavor, and*
>
> *To conduct myself honorably, as a responsible member of the Georgetown community as we live and work together.*

All suspected cases of academic dishonesty will be handled according to the standards and procedures outlined in the Undergraduate Bulletin (http://bulletin.georgetown.edu/regulations/honor).

Sharing the TopHat attendance code with anyone not in attendance at the time the code is given is a violation of Academic Integrity and will be treated as such.

Correspondence: Don't hesitate to contact me if you need help with the course. I strongly value my role as a teacher (as well as researcher) and will gladly provide help outside of class. I also have an open-door policy and do my best to make myself available. I almost always work in my office with my door open--if you come by and see my door open that means you're welcome to drop in announced. If you want to make sure you catch me, you may come to my office hours or set up an appointment. To make an appointment for a different time, contact me after class, at my office phone number, or via e-mail. *I'm here to help, so definitely let me know if I can be of assistance!*

Best,

Paul S. Merritt, PhD

Module 1 – Introduction to Cognitive Psychology and Cognitive Neuroscience
Objectives:
1. Describe how cognitive psychology is relevant to everyday experience.
2. Explain the practical applications of cognitive psychology.
3. Understand and demonstrate how it is possible to study the inner workings of the mind when we can't really see the mind directly.
4. Define cognitive neuroscience, and explain why it is a necessary part of understanding human cognition.
5. Explain in detail how information is transmitted from one place to another in the nervous system.
6. Summarize how studying the brain informs us about cognition.,

Chapters 1 and 2
Lectures:
1.1 Introduction
1.2 Foundations
1.3 Research Methods in Cognition
1.4 Cognitive Neuroscience
Demonstrations
Module 1 Quiz

Module 2 – Sensation and Perception
Objectives
1. Distinguish between sensory processes and perception.
2. Describe how a person's knowledge about characteristics of the environment is related to perception.
3. Explain how and why the brain becomes tuned to respond best to things that are likely to appear in the environment.
4. Describe how perception and memory are represented in the brain and how this is disrupted in neuropsychology patients.

Chapter 3
Lectures:
Perception and Gestalt Principles
Pattern Recognition
Recognition by Components
Sensation and Perception
Applied Perception
Auditory Perception
Neuropsychology of Perception
Demonstrations
Visual Search Task
Module 2 Quiz

Module 3 – Attention
    Objectives
1. Describe the processes by which we can focus on one thing our environment while ignoring the rest of our environment.
2. Explain the limited circumstances under which we can pay attention to more than one thing at a time.
3. Explain the relevance of attention research to talking on cell phones while driving a car.
4. Provide a clear explanation of Posner's Attentional networks and how the relate to specific attention tasks.
5. Describe the neurological underpinnings of attention.

Chapter 4
Lectures:
    Consciousness and Attention
    Classic approaches to attention
    Sustained attention & SDT
    Selective attention
    Visual attention
    Divided attention and applications of attention
    Neuropsychology of Attention
Demonstrations
    Stroop Task
Module 3 Quiz

Module 4 – Short-term and Working Memory
    Objectives:
1. Classic approaches to STM
2. Duration and Capacity of STM
3. Baddeley's model of working memory
4. Stress, Brain and WM
5.

Chapter 5
Lectures:
    Introduction to Short-term memory
    Working Memory
    Applications of Working Memory Research
    Neuroscience of Working Memory
Demonstrations
    Digit Span
    Operations Span
    Mental Rotation Task
Module 4 Quiz
Midterm Exam

Module 5 - Introduction to Long-term Memory
Objectives:
1. How does damage to the brain affect the ability to remember what has happened in the past and the ability to form new memories of ongoing experiences? (160)
2. How are memories for personal experiences, like what you did last summer, different from memories for facts, like the capital of your state? (162)
3. How do the different types of memory interact in our everyday experience?
4. What is the best way to store information in long-term memory? (180)
5. What are some techniques we can use to help us get information out of long-term memory when we need it? (187)
6. How is it possible that a lifetime of experiences and accumulated knowledge can be stored in neurons? (193)
7. How can the results of memory research be used to create more effective study techniques?

Chapters 6 and 7
Lectures:
Demonstrations
    Implicit Memory and Word Fragment Completion
    Self-reference
    Encoding Specificity
Module 5 Quiz

Module 6 – Everyday Memory
Objectives
1. What kinds of events from their lives are people most likely to remember? (209)
2. Is there something special about memory for extraordinary events like the 9/11 terrorist attacks? (213)
3. What properties of the memory system make it both highly functional and also prone to error? (225)
4. Why is eyewitness testimony often cited as the cause of wrongful convictions?

Chapter 8
Lectures:
Demonstrations
    False Recall and False Recognition
    Elaboration and Meaningfulness
Module 6 Quiz

Module 7 – Knowledge and Language
Objectives:
1. Describe how information about different categories stored in the brain.
2. Explain why it is difficult to decide if a particular object belongs to a particular category.
3. Define and differentiate prototype and exemplar theories of categorization.
4. Explain spreading activation models of semantic memory and the evidence used to support them.
5. Describe how case studies of brain injured patients provide insights into the neuroscience of language.

Chapters 9 and 11
Lectures:
    Semantic Memory
    Concepts and Categories
    Language
    Neuropsychology of Language
Demonstrations
    Organization: Categories
Module 7 Quiz

Module 8 – Problem Solving, Reasoning and Decision Making
Objectives:
1. Demonstrate how problem representation can both hinder and help in solving problems.
2. Demonstrate how analogies can be used to help solve problems.
3. Describe the relationship between other cognitive systems and problem solving.
4. Explain how heuristics are used in decision making and the influence they have on key social issues.
5. Demonstrate the ability to use conditional reasoning and logic in applied situations.

Chapters 12 and 13
Lectures:
    Syllogistic Reasoning
    Conditional Reasoning
    Logic
    Arguments
    Problem Solving
    Decision Making
Demonstrations
    Illusory Correlation
Module 8 Quiz
Final Exam