DETAILED COURSE OUTLINE

A. COURSE OVERVIEW

Department: Psychology

Subject/Catalog Number(s): PSYC 221

Single or Multi-Term Course: Single Term

Course Units: 3.0

Course Title: Cognitive Psychology

Course Calendar Description

Cognitive psychology is the study of the mind. By employing the scientific method, cognitive psychologists develop an understanding of the processes involved in all aspects of thinking, including attention, perception, memory, reasoning, language, and problem-solving. With the human brain considered to be the most complex object known to exist, and maybe the most powerful learning system known to exist, the study of the thinking processes it produces is immensely challenging. With this complexity and the challenge of using our own thinking to study human thinking, cognitive psychology represents a rich and fascinating research domain.

Prerequisites

PSYC 100/6.0 Principles of Psychology

Learning Hours

Learning hours include in-class lecture/seminar/laboratory/tutorial hours (formerly referred to as contact hours) and out-of-class online/private study hours. This information will be the basis for setting up the course components in PeopleSoft, and should be consistent with the proposed units assigned to the course. For example, a 3.0-unit course would normally require from 110 to 130 total learning hours or hours on task.

Teaching method		Average hours per week	Number of weeks	Total hours
	Lecture			
IS	Seminar			
hours	Laboratory			
	Tutorial			
In-class	Practicum			
≟	Group learning			
	Individual			

	instruction			
_	Online activity	4	12	48
the	Off-campus activity			
ਰ	Private study	6	12	72
Total hours on task			120	

Time Commitment

Students can expect to spend approximately 9 to 10 hours per week (120 hours total) reading, watching videos, studying, and completing discussions or lab activities.

Method of Delivery

Online format with video materials, communication and discussion assignments conducted via the OnQ platform. The cognitive labs will be conducted via the online COGLAB 5 platform, but the submission of cognitive labs will be via the OnQ platform.

Learning Outcomes

- Identify and explain classic and current issues within cognitive psychology (including but not limited to perception, attention, memory, knowledge, language, problem solving, and reasoning and decision making)
- Identify and explain standard methodological approaches used in the study of human cognition and cognitive neuroscience.
- Engage in critical reading of empirical evidence used to examine theories of cognition.
- Explain how experimental findings inform theories of cognition.
- Collaborate with peers to analyze experimental designs and theories and effectively communicate the results.

Required Materials

- Bundle which consists of Goldstein textbook and COGLAB 5 Access (ISBN-10: 1305416422)
 - o Goldstein, E. B. (2015). Cognitive psychology: Connecting mind, research, and everyday experience, 4th Edition. Cengage Learning.
 - o Francis, G. (2015). COGLAB 5 printed access card. Cengage Learning. 1 term (6 months)

Assessment Structure and Overview

Assessment	Formative or Summative	Weight	Alignment with Learning Outcomes
Online Discussions (highest 4 out of 5)	Formative	20%	1,2,5
Online Quizzes (highest 8 of 10)	Summative	20%	1,2
Cognitive Lab Assignments (highest 4 out of 5)	Summative with formative elements	20%	1,2,3,4,5
Final Exam (proctored)**	Summative	40%	1,2,3,4

Online Quizzes

There are 10 quizzes. The quizzes will consist of 10 multiple-choice questions based on the weekly material from weekly videos and textbook readings. Your final quiz grade will be based on your highest 8 quizzes.

Online Discussions

- On odd-numbered weeks, you will complete a discussion assignment.
- Week 1:
 - You will participate in an unmarked discussion assignment meant to familiarize you with the discussion forum.
- Weeks 3, 5, 7, 9, and 11:
 - You will be randomly assigned to small groups and have a TA or the instructor assigned to your group to facilitate your discussion. There will be three components to each discussion assignment:
 - Initial post: Each student will first provide a response to the discussion question,
 - Participation: Each student will participate in discussion forum by responding to other students' posts.
 - **Final post:** Your discussion group will provide a single final submission to the dropbox.
 - You will be marked on the quality of your initial post, your contribution to the discussion forum, and the quality of the group's final submission to the dropbox.
 - Each discussion will be worth 10 points (2 points for your individual initial post, 2 points for participating in the discussion forum, and 6 points for the group's final dropbox submission).
 - o Your final discussion grade will be based on your best 4 discussions.

Cognitive Lab Assignments

- On even-numbered weeks, you will complete a cognitive lab assignment.
- Week 2:
 - You will participate in an unmarked cognitive lab assignment meant to familiarize you
 with the structure of the cognitive labs.

- Weeks 4, 6, 8, 10, and 12:
 - You will complete a cognitive lab, and submit a written assignment (maximum 2 pages in length). Each written assignment is designed to demonstrate your understanding of that week's cognitive lab.
 - o Each cognitive lab will be worth 10 points (rubric provided for each individual lab).
 - Your final cognitive lab grade will be based on your best 4 cognitive labs.

Final Exam

The Final Exam is three hours in length and includes multiple-choice and short answer questions based on the material from the entire term. The specific date for the final exam will be announced later in the term.

Late Policy

- Online discussions must be completed within the open discussion period of 5 days, otherwise a grade of zero will be assigned.
- Online quizzes must be completed during the 24 hour testing window, otherwise a grade of zero will be assigned.
- Late cognitive lab assignments will be penalized 10% per day late including weekend days.

Communication

The teaching team contact information is located on the home page of the course (see "Teaching Team"). For general questions about the course, please post to the discussion forum topic, Questions (located on the upper right corner of the home page of the course). Feel free to help answer your peer's questions on this forum. We will reply to email inquiries and discussion forum questions usually within 24 hours. Please use email for inquires that are more personal in nature or questions such as academic accommodations, marking issues, etc. If you need to have a more detailed conversation, please schedule a virtual office meeting with the Professor.

Accessibility/Accommodation

Queen's University is committed to achieving full accessibility for persons with disabilities. Part of this commitment includes arranging academic accommodations for students with disabilities to ensure they have an equitable opportunity to participate in all of their academic activities.

If you are a student with a disability and think you may need accommodations, you are strongly encouraged to contact the Queen's Student Accessibility Services (QSAS) and register as early as possible. For more information, including important deadlines, please visit the QASA website at: http://www.queensu.ca/studentwellness/accessibility-services/

Academic Integrity

Academic integrity is constituted by the five core fundamental values of honesty, trust, fairness, respect and responsibility (see www.academicintegrity.org). These values are central to the building, nurturing and sustaining of an academic community in which all members of the community can thrive.

Adherence to the values expressed through academic integrity forms a foundation for the "freedom of inquiry and exchange of ideas" essential to the intellectual life of the University; see Senate Report on Principles and Priorities

http://www.queensu.ca/secretariat/policies/senateandtrustees/principlespriorities.html.

Students are responsible for familiarizing themselves with the regulations concerning academic integrity and for ensuring that their assignments conform to the principles of academic integrity. Information on academic integrity is available on the Arts and Science website (see

http://www.queensu.ca/artsci/academics/undergraduate/academic-integrity), and from the instructor of this course. Departures from academic integrity include plagiarism, use of unauthorized materials, facilitation, forgery and falsification, and are antithetical to the development of an academic community at Queen's. Given the seriousness of these matters, actions which contravene the regulation on academic integrity carry sanctions that can range from a warning or the loss of grades on an assignment to the failure of a course to a requirement to withdraw from the university.

Copyright Statement

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Discussion Forum and Email Guidelines

Please consider the following guidelines when posting to the discussion forum and when sending emails to your professor or your TA:

- 1. **Be clear**: Make sure the subject line of your email or discussion forum post reflects its content.
- 2. **Use appropriate language:** If you have a question and you are feeling emotional, don't send the message, save it, and review it "later". Don't use ALL CAPITAL LETTERS--it's equal to shouting or screaming. Also, when you communicate online, you do not see a person's face or expressions and this makes for easy misinterpretation. A rule of thumb to remember is, "Would I say this if I were talking face to face to this person?"
- 3. **Make a good impression**: Your words and content represent you; review and edit your emails and discussion posts before sending.
- 4. **Share**: Share resources, ideas and tips with other students.
- 5. **Open-minded:** Keep an "open-mind". Be willing to express your opinion and be respectful of the opinions of others.

Grading Method

The final grade received for the course will be derived by converting the student's numerical course average to a letter grade according to Queen's Official Grade Conversion Scale:

Grade	Numerical Course Average (Range)
A+	90-100
Α	85-89
A-	80-84
B+	77-79
В	73-76
B-	70-72
C+	67-69
С	63-66
C-	60-62
D+	57-59
D	53-56
D-	50-52
F	49 and below

Student Resources

- The Library offers many great services to enhance your learning while at Queen's.
 - o http://library.queensu.ca
- Writing Services
 - o http://sass.queensu.ca/writingcentre/
- **Student Wellness Services** support the personal, academic and social development of students at Queen's University by providing a range of programmes and services.
 - http://www.queensu.ca/studentwellness/
- Career Services offers students various services including workshops.
 - o https://careers.sso.queensu.ca/home.htm

Course Timeline

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Week	Required Course Material	Assessment
Week 1	Module 1 Outline	Intro to Discussion Forum (not graded):
January 9-15	Goldstein Chapter 1	Responses due Jan. 22 @ 11:55pm
	Chapter 1 Video Lessons	
	Intro to Discussion Forum	
Week 2	Module 2 Outline	Intro to Cognitive Labs (not graded):
January 16-22	Goldstein Chapter 2	 Due January 22 @ 11:55pm
	Chapter 2 Video Lessons	
	Intro to Cognitive Labs Task	
Week 3	Module 3 Outline	Quiz #1 (Chapters 1-2)
January 23-29	Goldstein Chapter 3	Opens January 24 @ 9:00am
	Chapter 3 Video Lessons	 Due January 25 @ 9:00am
	Discussion #1	Discussion #1
		 Initial post due Jan. 26 by 10:00am
		 Response due Jan. 29 by 11:55pm
Week 4	Module 4 Outline	Quiz #2 (Chapter 3)
January 30-February 5	Goldstein Chapter 4	Opens January 30 @ 9:00am
	Chapter 4 Video Lessons	 Due January 31 @ 9:00am
	• Cognitive Lab #1	Cognitive Lab #1
		 Due February 3 at 11:55pm
Week 5	Module 5 Outline	Quiz #3 (Chapter 4)
Feb. 6-12	Goldstein Chapter 5	Opens February 6 @ 9:00am
	Chapter 5 Video Lessons	 Due February 7 @ 9:00am
	• Discussion #2	Discussion #2
		 Initial post due Feb. 9 by 10:00am
		Responses due Feb. 12 by 11:55pm
Week 6	Module 6 Outline	Quiz #4 (Chapter 5)
Feb. 13-17	Goldstein Chapter 6	• Opens Feb. 13 @ 9:00am
	Chapter 6 Video Lessons	• Due Feb. 14 @ 9:00am
	Cognitive Lab #2	Cognitive Lab #2
		Due February 17 at 11:55pm
	Reading Wee	
	Feb. 20-26	
Week 7	Module 7 Outline	Quiz #5 (Chapter 6)
Feb. 27-March 5	Goldstein Chapter 7	• Opens Feb. 27 @ 9:00am
	Chapter 7 Video Lessons	• Due Feb. 28 @ 9:00am
	• Discussion #3	Discussion #3
		 Initial post due March 2 by 10 am
		 Responses due March 5 by 11:55 pm

Week 8	Module 8 Outline	Quiz #6 (Chapter 7)
March 6-12	Goldstein Chapter 8	Opens March 6 @ 9am
	Chapter 8 Video Lessons	Due March 7 @ 9am
	Cognitive Lab #3	Cognitive Lab #3
		 Due March 10 by 11:55pm
Week 9	Module 9 Outline	Quiz #7 (Chapter 8)
March 13-19	Goldstein Chapter 9	 Opens March 13 @ 9am
	Chapter 9 Video Lessons	Due March 14 @ 9am
	Discussion #4	Discussion #4
		 Initial post due March 16 by 10am
		 Responses due March 19 by 11:55pm
Week 10	Module 10 Outline	Quiz #8 (Chapter 9)
March 20-26	Goldstein Chapter 11	 Opens March 20 @ 9am
	Chapter 11 Video Lessons	Due March 21 @ 9am
	Cognitive Lab #4	Cognitive Lab #4
		 Due March 24 by 11:55pm
Week 11	Module 11 Outline	Quiz #9 (Chapter 10)
March 27-April 2	Goldstein Chapter 12	Opens March 27 @ 9am
	Chapter 12 Video Lessons	Due March 28 @ 9am
	Discussion #5	Discussion #5
		 Initial post due March 30 by 10:00 am
		 Response due April 2 by 11:55pm
Week 12	Module 12 Outline	Quiz #10 (Chapter 12)
April 3-7	Goldstein Chapter 13	Opens April 3 @ 9am
	Chapter 13 Video Lessons	Due April 4 @ 9am
	Cognitive Lab #5	Cognitive Lab #5
		• Due April 7 @ 11:55pm

PSYC 221: Cognitive Psychology Module Outlines, Winter 2017

Module 1: Introduction to Cognitive Psychology

Learning Outcomes

By the end of this module, you will

- Outline key historical developments in the history of cognitive psychology.
- Describe the impact of behaviourism on the study of mind.
- Describe the decline of behaviourism and the impact that the "cognitive revolution" had on the study of mind.
- Explain the role of models in cognitive psychology.

Learning Resources







- Read Goldstein Chapter 1
- Chapter 1 Video Lessons

Learning Activities (see course timeline for specific due dates)

• Participate in the introduction to discussion forum (not graded).

Module 2: Cognitive Neuroscience

Learning Outcomes

By the end of this module, you will

- Discuss how neurons represent information.
- Explain localization of function and the principle of double dissocations.
- Describe in basic terms how functional magnetic resonance imaging works.
- Describe how brain imaging has contributed to our understanding of brain function.
- Explain the concept of distributed representations.

Learning Resources







• Read Goldstein Chapter 2

 Chapter 2 Video Lessons

Learning Activities (see course timeline for specific due dates)

- 1. Participate in the introduction to discussion forum (not graded).
- 2. Complete introduction to cognitive labs (not graded).

Module 3: Perception

Learning Outcomes

By the end of this module, you will

- Identify the basic characteristics of perception
- Explain why perception is difficult for machines
- Discuss key conceptualizations of object perception.
- Explain how empirical evidence informs our understanding of perception.
- Describe how perception interacts with action

Learning Resources







- Read Goldstein Chapter 3
- Chapter 3 Video Lessons

- 1. Complete Quiz #1 based on weeks 1 and 2 materials
- 2. Participate in Discussion Forum 1: Illusions

Learning Outcomes

By the end of this module, you will

- Describe major models of selective attention, in particular Broadbent's filter model and Lavie's load model.
- Explain how empirical evidence informs our understanding of attentional control.
- Examine how our understanding of attentional processes has been applied to everyday life, in particular in the context of driving.
- Discuss how failures to attend impact our behaviour

Learning Resources







- Read Goldstein Chapter 4
- Chapter 4 Video Lessons

- 1. Complete Quiz #2 based on week 3 material
- 2. Complete Cognitive Lab Assignment #1

Module 5: Short-Term and Working Memory

Learning Outcomes

By the end of this module, you will

- Explain major models of short-term and working memory, in particular the modal model.
- Identify and explain the key characteristics of short-term memory.
- Describe the key components of working memory, in particular the phonological loop and the visuospatial sketch pad
- Describe how working memory is implemented in the brain.
- Explain how empirical evidence informs our understanding of short-term and working memory.

Learning Resources







- Read Goldstein Chapter 5
- Chapter 5 Video Lessons

- Complete Quiz #3 based on week 4 materials (chapter 4)
- Participate in Discussion Forum #2

Module 6: Long-Term Structure

Learning Outcomes

By the end of this module, you will

- Compare the relation between short-term and long-term memory processes.
- Compare the relation between episodic and semantic memory.
- Explain automatic aspects of long-term memory, in particular procedural memory, priming, and conditioning.
- Describe how long-term memory is implemented in the brain.
- Describe how empirical evidence informs our understanding of long-term memory.

Learning Resources







 Read Goldstein Chapter 6

 Chapter 6 Video Lessons

- Complete Quiz #4 based on week 5 materials (chapter 5)
- Complete Cognitive Lab Assignment #2

Module 7: Long-Term Memory: Encoding, Retrieval, and Consolidation

Learning Outcomes

By the end of this module, you will

- Describe how information is encoded into and retrieved from long-term memory.
- Explain how empirical evidence informs our understanding of how memories are consolidated into long-term memory representations.
- Explain how empirical evidence informs our understanding of encoding, retrieval, and consolidation.

Learning Resources







- Read Goldstein Chapter 7
- Chapter 7 Video Lessons

- 1. Complete Quiz #5 based on week 6 materials (chapter 6)
- 2. Participate in Discussion Forum #3

Module 8: Everyday Memory and Memory Errors

Learning Outcomes

By the end of this module, you will

- Identify and describe key characteristics of autobiographical memory.
- Describe how memory for exceptional events is unique, especially in terms of its connection with emotion.
- Discuss how evidence supports the theory that memory is "constructed".
- Describe the fallibility of memory in particular how it can be modified and how false memories can be created
- Explain how the fallibility of memory has real world consequences, in particular in terms of eyewitness memory.

Learning Resources







- Read Goldstein Chapter 8
- Chapter 8 Video Lessons

- 1. Complete Quiz #6 based on week 7 materials (chapter 7)
- 2. Complete Cognitive Lab Assignment #3

Module 9: Knowledge

Learning Outcomes

By the end of this module, you will

- Explain the semantic network approach to the understanding of knowledge representation.
- Describe the empirical evidence that supports and the evidence that does not support the Collins and Quillian model.
- Explain how connectionist models represents and learns information.
- Describe the four hypotheses as to how information is represented in the brain and the evidence for and against each one.

Learning Resources







 Read Goldstein Chapter 9

 Chapter 9 Video Lessons

- Complete Quiz #7 based on week 8 materials (chapter 8)
- Participate in Discussion Forum #4

Module 10: Language

Learning Outcomes

By the end of this module, you will

- Describe the word superiority effect and its implications for language processing.
- Describe the word frequency effect.
- Explain the concept of coherence and how inference helps produce coherence.
- Explain syntactic co-ordination and describe how syntactic priming has been used to support syntactic co-ordination.
- Compare the syntax-first approach and the interactionist approach to parsing.
- Describe the Sapir-Whorf hypothesis, and empirical evidence that supports this hypothesis.

Learning Resources







- Read Goldstein Chapter 11
- Chapter 11 Video Lessons

- Complete quiz #8 based on week 9 materials (chapter 9)
- Complete Cognitive Lab Assignment #4

Module 11: Problem Solving

Learning outcomes

By the end of this module, you will

- Describe the gestalt approach to the understanding of problem-solving.
- Describe the information approach to the understanding of problem-solving.
- Explain how analogies are used to solve problems.
- Describe differences between how experts and novices solve problems, and limitations on expertise in problem-solving.
- Describe the role of creativity in problem-solving.

Learning Resources







• Read Goldstein Chapter 12

 Chapter 12 Video Lessons

- 1. Complete Quiz #9 based on week 10 materials (chapter 11)
- 2. Participate in Discussion Forum #5

Module 12: Judgement, Decisions, and Reasoning

Learning Outcomes

By the end of this module, you will

- Explain the concept of heuristics and provide examples.
- Describe factors that influence decision making processes.
- Describe the mental model approach to reasoning.
- Explain the concept of conditional syllogism and describe the types of syllogisms.
- Explain the Wason four-card problem.
- Explain the dual systems approach to thinking.

Learning Resources







- Read Goldstein Chapter 13
- Chapter 13 Video Lessons

- 1. Complete Quiz #10 based on week 11 materials (chapter 12)
- 2. Complete Cognitive Lab Assignment #5

Extra stuff in case I rearrange chapters covered:

Week 13

Topics

• Judgment, decisions, and reasoning

Unit learning outcomes

• Add unit level learning outcomes.

Readings

• Goldstein Chapter 13

Activities