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### Course Calendar Description

Cognitive psychology is the study of the thinking processes of the human brain. 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.

	Seminar			
	Laboratory			
	Tutorial			
	Practicum			
	Group learning			
	Individual			





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.
- 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

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>.

## Grading Method

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A+	90-100
A	85-89
A-	80-84
B+	77-79
B	73-76
B-	70-72
C+	67-69
C	63-66
C-	60-62
D+	57-59
D	53-56
D-	50-52
F	49 and below

## Student Resources

○ [\\_\\_\\_\\_\\_](#)  
**Writing Services**

○ [\\_\\_\\_\\_\\_](#)  
**Student Wellness Services** support the personal, academic and social development of students at Queen's University by providing a range of programmes and services.

○ [\\_\\_\\_\\_\\_](#)  
**Career Services** offers students various services including workshops.

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Week 8  
March 6-12

Module 8 Outline  
Goldstein Chapter 8  
Chapter 8 Video Lessons  
Cognitive Lab #3

Opens March 6 @ 9am  
Due

# 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.

## 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 dissociations.
- 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 4: Attention

### *Learning Outcomes*

By the end of this module, you will

## 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



### *Learning Activities*

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

### *Learning Actinn*





## 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 the effects of emotion on memory.

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



### *Learning Activities*

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

## 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



### *Learning Activities*

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



### *Learning Activities*

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



### *Learning Activities*

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*

