# Cognitive Psychology (PSY 2215) Spring 2018 Syllabus

Instructor: Anna Babarczy Meeting Times: Thursday 2:15-3:45, 4:00-5:30 Office Hours: After class or by appointment

**Contact Information** 

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only.)

# **Course Description**

# **General Objectives**

Cognitive psychology studies how the human brain/mind processes and stores information including visual signals, sounds and language, and how people use this information to solve problems and make decisions in their everyday lives. Cognitive psychology is an empirical science: Theoretical models of how the mind works are tested and improved through observations and experiments. These models can help us understand why things may go wrong, how to help people with certain neurological disorders, how to improve the performance of education systems, how to make smarter computer programs and robots, and how to make better business decisions.

The main goals of the course are:

- To understand the basic principles and methods of cognitive psychology
- To understand the applications of these principles to everyday life
- To develop critical thinking and problem solving skills

## How the course will be conducted

About half of the class meetings will mainly be conducted in a lecture/discussion format while the other half will be dedicated to lab work and the discussion of case studies.

# **Required Text**

Required text: Bruce E Goldstein, *Cognitive Psychology: Connecting Mind, Research and Everyday Experience.* 3<sup>rd</sup> or 4<sup>th</sup> Edition.

Other texts and materials will be distributed in class.

## **Assignments and Grading**

Homework: Most weeks there will be a short homework assignment. You will run an experiment or read and present a paper to the class.

Project: You will write a 3000 word paper related to any topic we discuss in class. You can either collect your own data and write a research paper or write a literature review summarizing the state of the art in the chosen topic.

Final Exam: The final exam will be an oral presentation of your project paper to your class and any guests you wish to invite.

## **Course Grade**

Participation and homework: 25% Midterm test: 25% Project: 25% Final Exam: 25%

## **Honor Code**

You are expected to adhere to the McDaniel College Honor Code.

First and foremost, do not attempt to hand in any work that is not your own. This will result in a failing grade on the work, and it will be reported to the Dean.

Second, and perhaps a bit more difficult to understand, is the use of proper source citation. In composition you are expected to use outside sources, for example websites, critical essays, interviews, etc. Without proper citation, an essay is claiming that the author is the source of such information. This is a form of academic dishonesty, and it is taken seriously in this course. Grades will be affected severely by any violation.

# **Course Policies**

## Attendance

Your presence in class is required. If you miss more than three classes your grade will drop 1/3 of a letter grade. Then with each subsequent absence the grade will drop another 1/3 of a grade. If you must miss class for medical reasons, please provide a signed excuse from a doctor.

## **Tardiness**

Attendance will be taken during the first fifteen minutes of class. If you cannot arrive in that time you will be marked absent.

Tentative schedule (it may change as we go along)

| Date     | Topic  | Experiments                                    | Goldstein  |
|----------|--|--|------------|
|          |  | OPL Class ID: 5363                             | 3rd        |
| 1 Feb    | What is cognitive psychology?                                  |  | Ch 1       |
| 8 Feb    | Introduction to neuroscience: How the brain works              | OPL: word recognition                          | Ch 2       |
| 15 Feb   | Perception and pattern recognition                             | OPL: Muller-Lyer, Ponzo, mental rotation,      | Ch 3       |
|          |  | implicit association                           |            |
| 22 Feb   | Attention and attentional performance limitations              | Cognition Laboratory experiments, OPL:         | Ch 4       |
|          |  | Stroop   |            |
| 1 March  | Short-term and working memory                                  | OPL: numerical memory, object location,        | Ch 5       |
|          |  | mirror drawing (for a real challenge)          |            |
| 8 March  | Long-term memory: Encoding, storing and retrieving information | OPL: facial recognition, be a juror            | Ch 6       |
| 15 March | HUNGARIAN HOLIDAY - NO CLASS                                   |  |            |
| 22 March | MIDTERM  |  |            |
| 29 March | SPRING BREAK   |  |            |
| 5 April  | Memory codes, processes and failures                           |  | Chs 7 & 8  |
| 12 April | Visual imagery   | Games: Tantrix, jigsaw puzzle, sliding puzzle, | Ch 10      |
|          |  | tangram  |            |
| 19 April | The organization and categorization of knowledge in the mind   | OPL: lexical decision, first impressions       | Ch 9       |
| 26 April | Language   | OPL: dichotic listening                        | Ch 11      |
| 3 May    | Problem solving  | Movie: ?                                       | Ch 12      |
| 10 May   | Expertise and creativity, Decision making and reasoning        | OPL: Monty Hall                                | Chs 12, 13 |
| 17 May   | FINAL EXAM   |  |            |