# YORK UNIVERSITY FACULTY OF HEALTH Department of Psychology Keele Campus

Course: HH/PSYC 3260M Cognition

Course Webpage: Moodle (moodle.yorku.ca)

Term: Winter 2012

<u>Prerequisite / Co-requisite</u>: AK/AS/HH/SC/PSYC 1010 6.00 or AK/HH/PSYC 2410 6.00, with a minimum grade of C. Course credit exclusions: AK/PSYC 3135 3.00 (prior to Summer 2002), GL/PSYC 3370 3.00.

#### Course Instructor:

Lynn Luo Tel: 416 736 2100 x 22754 Office: ATK 518 Email: lynnluo@yorku.ca Office hour: Thursdays 12:00 – 1:00 PM

#### **Teaching Assistant:**

Margot Sullivan Email: margots@yorku.ca Office hour: by appointment

<u>Time and Location</u> Lectures: Thursdays 8:30 – 10:30. ACW 206 Tutorials/Seminars: Thursdays 10:30 – 11:30. ACW 206

### **Expanded Course Description**

This course presents a survey of recent research and theories relating to the area of cognition. Topics include perception, attention, memory, knowledge, problem solving, reasoning and decision making. Relevant concepts, theories, models, empirical studies, and everyday applications will be discussed and analyzed throughout the course.

## Organization of the Course

The course involves formal lectures and discussions of the course materials. The course instructor will clarify and illustrate crucial issues in the field of cognition, present updated empirical findings along the lines of each lecture theme, and lead discussions pertaining to the lecture materials. Understanding the experimental methods and results is one of the central purposes of the course. Students will be required to complete online labs, read peer-reviewed scientific paper, and eventually write their own experiment report. Lectures, labs, and assignments will introduce students to the scientific studies of cognition, and to stimulate critical thinking about theory, data, and everyday application.

# **Course Learning Objectives**

## (1) Statement of the purpose:

The purpose of this course is to assist students in developing a critical overview of the psychological aspects of cognition Students will be able to understand the main principles of cognitive processes, recent research examining these processes, and their relations to everyday experience. The course will also walk students through different scientific methods and empirical research that examine these processes.

## (2) Specific learning objectives of the course:

- understand the recent scientific developments in the area of cognition.
- be able to relate recent empirical approaches to examine critical issues in the field.
- be able to relate laboratory research to everyday experience.
- develop critical reading and understanding skills pertaining to concepts and theories in the area of cognition.

• demonstrate the ability to read, understand, conduct, and write about an experimental study.

## Course Text / Readings

Title: Cognitive Psychology: Connecting Mind, Research, and Everyday Experience. Third Edition. (with CogLab Access). Author: E. Bruce Goldstein *ISBN:* 1111706301 *Publisher:* Wadsworth

Additional readings may be assigned or recommended during the course.

**Important:** Students need the **original** CogLab 2.0 access code that comes with the textbook to complete labs and assignments. DO NOT purchase used code.

## **Evaluation**

The final grade for the course will be based on the following items weighted as indicated:

| Item                         | Percentage    | Due date                  |
|------------------------------|---------------|---------------------------|
| Assignment 1: CogLab         | 5%            | Wednesdays before lecture |
| Term Test                    | 25%           | February 9, 2010          |
| Assignment 2: Research Story | 15%           | March 1, 2010             |
| Last day to drop without re  | March 6, 2010 |                           |
| Assignment 3: Lab Report     | 20%           | March 29, 2010            |
| Final examination            | 35%           |                           |

Final course grades may be adjusted to conform to Program or Faculty grades distribution profiles.

## Online Lab: Coglab

Use the brochure enclosed with the textbook to access Coglab 2.0 online. You must complete one lab prior to the lecture as assigned in the lecture outline. These labs give you an opportunity to be a participant in classic experiments. The experimental procedures are explained in the Coglab brochure and you will run the experiments online at http://coglab.wadsworth.com/. You will be able to view and download your own experiment data. Be sure to save your data for later use.

### Research story (2-3 pages, double-spaced):

This assignment gives you an opportunity to read a recent research article, and connect the results to everyday life. You must read a recently published article in peer-reviewed journals, and write a news story about the research (You may read the science news section in newspapers such as The Globe and Mail for some samples). The format of your story can be flexible, but your story must appeal to the general public who do not have a background in psychology. Therefore, you must clearly explain the concept, method, and results in laypeople's terms, and discuss the implications of the research in everyday life.

## Lab Report (10-12 pages, double-spaced):

This assignment gives you an opportunity to analyze and write about an experiment that you have completed. You must pick one of the coglab experiments you have completed and write an experiment report based on it. The format of your report will be similar to one published in peer-reviewed journals, containing an Introduction, a Method, a Results, and a Discussion section. APA style is required, but both 5<sup>th</sup> and 6<sup>th</sup> edition are acceptable. For the results section, present and analyze your own data along with data from **at least** 14 other students (so the total number of participants in your report will be at least 15).

Detailed instruction for the assignments will be posted on the course website.

### Term Test and Final Examination:

Both components consist of multiple choices and short answers. Test and exam are based on text, labs and lectures.

## **Lecture Outline**

| Date       | Торіс  | CogLab Assignment (5%) |
|------------|--|------------------------|
| January 5  | Introduction (Chapter 1)<br>Seminar: CogLab                                | N/A                    |
| January 12 | Cognition and the Brain (Chapter 2)<br>Seminar: Reading a research article | Brain Asymmetry        |
| January 19 | Perception (Chapter 3)<br>Seminar: TBA                                     | Visual Search          |

| January 26  | Attention (Chapter 4)<br>Seminar: TBA  | Simon Effect         |
|-------------|--|----------------------|
| February 2  | Human Memory: Short-term and Working<br>Memory (Chapter 5)<br><i>Seminar: Midterm Q &amp; A</i>                              | Memory Span          |
| February 9  | <b>In class Term Test (25%)</b><br>No Seminar  |                      |
| February 16 | Human Memory: Long-term Memory I<br>(Chapter 6 & 7)<br>Seminar: Midterm review   | Serial Position      |
| February 23 | Reading Week   |                      |
| March 1     | Research story due (15%)<br>Human Memory: Long-term Memory II<br>(Chapter 6 & 7)<br>Seminar: APA workshop                    | Levels of Processing |
| March 8     | Everyday Memory (Chapter 8)<br>Seminar: TBA  | False Memory         |
| March 15    | Knowledge (Chapter 9)<br>Seminar: Data analysis workshop   | Lexical Decision     |
| March 22    | Visual Imagery (Chapter 10)<br>Seminar: TBA  | Link Words           |
| March 29    | Lab report due (20%)<br>Problem Solving, Reasoning, and Decision<br>Making (Chapter 12 & 13)<br>Seminar: Final review, Q & A | Monty Hall           |
| Exam Period | Final Exam (35%)   |                      |

# Grading, Assignment Submission, Lateness Penalties and Missed Tests

**Grading**: The grading scheme for the course conforms to the 9-point grading system used in undergraduate programs at York (e.g., A + = 9, A = 8, B + -7, C + = 5, etc.). Assignments and tests\* will bear either a letter grade designation or a corresponding number grade (e.g. A + = 90 to 100, A = 80 to 90, B + = 75 to 79, etc.)

(For a full description of York grading system see the York University Undergraduate Calendar http://calendars.registrar.yorku.ca/pdfs/ug2004cal/calug04\_5\_acadinfo.pdf)

Students may take a limited number of courses for degree credit on an ungraded (pass/fail) basis.

**Assignment Submission**: Proper academic performance depends on students doing their work not only well, but on time. Accordingly, assignments for this course must be received on the due date specified for the assignment. Assignments are to be handed on time through turnitin.com AND hard copy in class.

**Lateness Penalty:** Assignments received later than the due date will be penalized for 1 grade point per day that assignment is late. Exceptions to the lateness penalty for valid reasons such as illness, compassionate grounds, etc., may be entertained by the Course Instructor but will require supporting documentation (e.g., a doctor's letter).

**Missed Tests:** Students with a documented reason for missing a course test, such as illness, compassionate grounds, etc., which is confirmed by supporting documentation (e.g., doctor's letter) may request accommodation from the Course Instructor. Methods of accommodation are to be discussed and approved by the course director. Further extensions or accommodation will require students to submit a formal petition to the Faculty.

### ADDITIONAL INFORMATION

#### **IMPORTANT COURSE INFORMATION FOR STUDENTS**

All students are expected to familiarize themselves with the following information, available on the Senate Committee on Curriculum & Academic Standards webpage (see Reports, Initiatives, Documents) - http://www.yorku.ca/secretariat/policies/

- York's Academic Honesty Policy and Procedures/Academic Integrity Website
- Ethics Review Process for research involving human participants
- Course requirement accommodation for students with disabilities, including physical, medical, systemic, learning and psychiatric disabilities
- Student Conduct Standards
- Religious Observance Accommodation