



# PNB2XA3 Human Perception and Cognition

## Fall 2018

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**Office Hours:** By appointment.

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**Office Hours:** TBA

**Classes:** Tuesday, Wednesday and Friday 12:30-1:20 pm, JHE 264

**Tutorials:** Friday 11:30-12:20, **HH/102**, GS/102, ABB/B118, BSB/B154, IWC/E201, ABB/164

### **Emailing:**

**Please use only your McMaster email address when emailing the course instructors. Other addresses often get spam filtered, and will never be read. Please do not send email directly from Avenue unless you set the “reply to” your McMaster email address. Please include 2XA3 in your subject line.**

**Avenue:** The course website is available to registered students by logging into Avenue <http://avenue.mcmaster.ca> You will need to use Avenue to access the course content, announcements, and discussions. It is your responsibility to keep up to date with class announcements made on Avenue.

### **Register your i<clicker:**

To register your i<clicker, go to <https://www1.iclicker.com/register-clicker/>

Your student ID is your MACID that you will use to login to avenue (the first part of your McMaster email address). Failure you to bring your personal i<clicker to class, or failure to register it properly, will result in a grade of zero being assigned for the relevant lecture.

### **Required Text:**

**Reisberg, D. (2016). Cognition: Exploring the Science of the Mind. 6<sup>th</sup> Edition.**

**Note:** The ZAPS software that accompanies the textbook is not required. If you chose to use the 5<sup>th</sup> edition of the textbook, MOST of the content overlaps, although NOTE that the chapter numbers are different. Tests and exams will be based on the 6<sup>th</sup> edition, so it is completely YOUR responsibility to ensure you are not missing anything from the newest edition, and that you are aligning the chapters appropriately.

### **Evaluation:**

The assessment for this course will be based on weekly in-class quizzes, weekly tutorial tests, assignments, class participation, research participation and a cumulative final exam.

### **Summary:**

In-class Quizzes: 10%

Tutorial Tests: 20%

Assignment1: 5%

Assignment2: 10%

Cumulative Final: 40%

Experiment participation: 5%

Class participation: 10%

Total = 100%

**Note: Students will be responsible for all material covered in lectures, as well as the material in the textbook.**

**In-Class Quizzes:** Each Tuesday class will begin with an in-class multiple-choice, 5-10 item quiz, based on the reading assigned for the **previous** week. 10% of the final course grade will be based on these in-class quizzes. NOTE: A registered **iClicker is required** to participate in these quizzes. You are permitted (and encouraged) to bring a single sheet of paper (8.5 x 11) containing notes for the relevant chapter that you will be able to reference during the quiz.

**Tutorial Tests:** Each Friday, beginning Sept. 14, the first part of tutorial will involve an in-class test that will cover the lecture material presented the previous week. For example, if we are currently discussing content related to Chapter 4: Object-Based Recognition, the test will cover lecture material related to Chapter 3: Visual Perception. The format of these tests will vary and may include short answer questions and/or applied problems. These tests are intended to improve skills related to understanding the conceptual link between data and theory. 20% of the final course grade will be based on these tutorial tests. You will be permitted to bring a single sheet of paper containing lecture notes from the previous week, as well as your notes (1 page) for the relevant chapter.

**Assignments:** Each student will be required to submit two written assignments during the term, for a total of 15% of the final course grade. The assignments will be described in detail in a separate document but will involve summarizing and discussing the content of peer reviewed research articles related to topics discussed in the course.

**Class Participation: Lecture i<clicker Points**

During lecture on Wednesdays and Fridays you may be given the opportunity to earn i<clicker points. You will receive 1 point per lecture, providing you respond to at least one of the questions asked. The total number of points earned will determine your participation grade in this course as a weighted sum totalling 10%. This grade is based solely on in-class participation.

**Experimental Participation:**

You will have the opportunity to earn 2 research participation credits, worth up to 5% of your final grade (1 credit = 2.5 points).

**Note:** If you do not wish to participate as a research subject for any reason, you may still earn your research participation credit by *observing* experiments. If you would like to choose this option, please see the course coordinator, Dr. Michelle Cadieux, in PC 110.

**IMPORTANT:** Your participation in experiments is for the purpose of exposing you to various procedures used to investigate current issues in the field of cognition. It is therefore recommended that you select experiments that are relevant to the field of cognition. If in doubt, you can contact the experimenter to double-check. For educational purposes, at the end of the experiment, ask the experimenter the following questions:

**What is the research question being addressed?**

**What are the independent variables being manipulated?**

**What is the dependent variable(s) being measured?**

**What is the specific hypothesis?**

**Cumulative Final Exam:** The final exam will include a multiple-choice component, covering textbook and lecture material, and a component that will be structured similarly to the tutorial tests, including applied problems based on lecture content.

**Course objectives and content:** In this course you will be introduced to the major themes in the field of Cognitive Psychology, including topics in perception, attention, memory, concept formation, language, imagery, problem solving and reasoning. While a major goal of psychology is to understand overt human behaviour, a major goal of cognitive psychology is to understand the underlying mental processes that give rise to these behaviours. A reoccurring theme in this course will be ‘the illusion of the expert’, which refers to the observation that we perceive and process information expertly (i.e., seemingly effortlessly), completely unaware of the complex mental processes that control our thoughts and actions. By the end of the course you will better understand the following:

- How we take in environmental information through our sensory systems and how those signals are interpreted, giving rise to a conscious percept that goes beyond the information given.
- How our attention system selects a subset of sensory information for further processing, controlled in part by the conscious intentions of the observer, and in part by processes that are not subject to conscious control.
- How information made available to consciousness is represented ('stored') in the brain.
- How the acquisition and retrieval of information are interactive processes.
- How memory is not a record of past events, but rather a reconstruction of past events.
- How memories are both fallible (i.e., prone to error) and malleable (i.e., subject to change).
- How we make decisions in everyday life, relying on both rules and 'rules of thumb' (i.e., heuristics).
- How we often ignore a great deal of information (e.g., base rates) when making critical decisions.
- How your concept of 'free will' is likely to change somewhat as a result of taking this course.

	<b>Course Outline</b>	
<b>Date</b>	<b>Topic</b>	<b>Chapter</b>
<b>Week of...</b>		
Sept. 3	Foundations	1,2
Sept. 10	Perception	Quiz 1 Sept. 11 3 Tutorial Test 1 Sept. 21
Sept. 17	Object Recognition	Quiz 2 Sept. 18 4 Tutorial Test 2 Sept. 28
Sept. 24	Attention	Quiz 3 Sept. 25 5 Tutorial Test 3 Oct. 5
Oct. 1	Memory Acquisition	Quiz 4 Oct. 2 6 Tutorial Test 4 Oct. 19
Oct. 8	Midterm Recess No Classes	
Oct. 15	Acquisition & Retrieval	Quiz 5 Oct. 16 7 Tutorial Test 5 Oct. 26
Oct. 22	Memory for Complex Events	Quiz 6 Oct. 23 8 Tutorial Test 6 Nov. 2
Oct. 29	Concepts	Quiz 7 Oct. 30 9 Tutorial Test 7 Nov. 9
Nov. 5	Language	Quiz 8 Nov. 6 10 Tutorial Test 8 Nov. 16
Nov. 12	Visual Knowledge	Quiz 9 Nov. 13 11 Tutorial Test 9 Nov. 23
Nov. 19	Judgment & Reasoning	Quiz 10 Nov. 20 12 Tutorial Test 10 Nov. 30
Nov. 26	Problem Solving & Intelligence	Quiz 11 Nov. 27 13
Dec. 3	Conscious & Unconscious Thought	14

### **Missed or Late Assessment:**

If you are absent from the university for a temporary issue lasting fewer than 5 days, you may report your absence using the McMaster Student Absence Form. Absences for a longer duration or for other reasons must be reported to your Faculty/Program office, with documentation. When using the MSAF, you must contact the professor immediately. You must speak to the instructor in person before or after class within 5 business days. In-class quizzes will not be made up. Tutorial Exams will not be made up. Your grade will be redistributed to other elements of the course. For all other assignments, please discuss accommodations with your instructor.

If you miss a midterm without either an MSAF or by prior arrangement with the instructor, you will receive zero for that exam.

### **McMaster Student Absence Form (MSAF):**

In the event of an absence for medical or other reasons, students should review and follow the Academic Regulation in the Undergraduate Calendar “Requests for Relief for Missed Academic Term Work”.

- The MSAF should be used for medical and non-medical (personal) situations.
- Approval of the MSAF is automatic (i.e. no documentation required)
- The timeframe within which the MSAF is valid is 3 days.
- The upper limit for which an MSAF can be submitted is ‘less than 25%’ of the course weight.
- There is a ‘one MSAF per term’ limit.

### **Completing Your Research Participation Credit:**

**SONA:** The system that the department uses to track research participation is called Sona, which can be accessed at <https://mcmaster.sona-systems.com>. To access Sona for the first time, select the “Request Account” option on the right of your screen and enter your name, student number, and McMaster email address. You will also be asked to pick your courses. Please select Psych 2XA3 from the list. After a short delay, you will receive an email from Sona with a username and temporary password that you can use to access the website. You should change your temporary password to something more memorable by selecting “My Profile”. Make sure your student number is entered correctly! Note: You must activate you

McMaster ID before you can create a Sona account. To activate your ID, please go to [www.mcmaster.ca/uts/macid](http://www.mcmaster.ca/uts/macid)

When you log into Sona for the first time, you will be asked to fill out a short survey. This information is used filter out any experiments for which you are not eligible. To register for an experiment, select “Study Sign-Up” from the main Sona page. You will be presented with a list of currently available experiments, with a short description given about each. Before selecting an experiment, be sure to read the description carefully, making special note of any specific criteria for participation (for example, some experiments only allow females to participate, while others may require subjects who speak a second language). When you have found an experiment that you would like to participate in, select “View Time Slots for this Study” to view available timeslots, then select “Sign Up” to register for a time that fits your schedule. You will receive a confirmation email with the details of your selection. Be sure to write down the experiment number, experimenter name, location, and telephone extension from this email.

After you have completed an experiment, you will be given a paper slip verifying your participation. This slip is for your records only—in the event that an experiment is not credited to your Sona account, this slip is your proof of participation. Shortly after completing an experiment, you should notice that your Sona account has been credited by the experimenter.

**Note:** If you fail to show up for two experiments, you will lose your option to complete the research participation credit. If you know in advance that you will be unable to attend a scheduled experiment, please contact the experimenter as soon as possible.

**Changes in course outline:** Details of the course outline may be subject to change. If dates are altered, a revised course outline will be posted on the webpage and announced in class.

**Changes in course requirements:** Details of the course requirements may be subject to change. If requirements are altered, a revised course outline will be posted on the webpage and announced in class.

**Special Needs:** If you have special needs, please contact the instructor so accommodations can be made.

**Academic Integrity Policy:** It is your responsibility to be aware of the University Academic Integrity Policy. Cases of academic dishonesty include, but are not limited to: copying or the use of unauthorized aids in tests, examinations and laboratory reports; plagiarism, i.e., the submission of work that is not one's own; aiding and abetting another student's dishonesty giving false information for the purposes of gaining admission or credit; giving false information for the purposes of obtaining deferred examinations or extension of deadlines; and/or forging or falsifying McMaster University documents. Students who infringe on the resolutions of the University Academic Integrity policy will be treated according to the published policy.

**Grading Policy:**

The instructor reserves the right to adjust final marks up or down, on an individual basis, in the light of special circumstances and/or the individual's total performance in the course. Final grades may also be adjusted up or down on a class-wide basis depending on overall performance.

**Logistics:**

McMaster University reserves the right to change or cancel course dates, assignments and their grading weights, and deadlines at the discretion of the instructor and in case of an emergency, labour disruption, civil unrest/disobedience, etc.