



## Psychology 1XX3/1NN3 Course Outline – Winter 2019

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Course Staff	Location	Office Hours
<b>Dr. Joe Kim</b> Primary Instructor	PC/106	Posted weekly on Avenue
<b>Dr. Michelle Cadieux</b> Course Coordinator & Instructor	MacIntroPsych Office PC/110	Posted weekly on Avenue
<b>Dr. Ellen MacLellan</b> Conestoga Instructor	Conestoga Campus Room TBA	Tuesdays 4:00pm - 5:00pm
<b>Daksh Datta &amp; Sabrin Salim</b> Head TAs	PC Lobby	
<b>TA Lobby hours</b>	PC Lobby or online at <a href="http://appear.in/macintropsych">appear.in/macintropsych</a>	Tuesday - Thursday 11:00am - 1:00pm

All correspondence regarding this course should be sent to: [intropsych@mcmaster.ca](mailto:intropsych@mcmaster.ca) using your McMaster email and **NOT** your Avenue account. If you have additional questions regarding course material, you have several options:

- Ask the course coordinator or TAs during Office and Lobby hours, posted weekly on Avenue
- Ask your personal TA during tutorial
- Join the active discussions on Avenue forums

You may also call the MacIntroPsych office at X24428 during office hours. Please note that **phone messages will not be returned**. If you have a request, please come in person during office hours or send an email to [intropsych@mcmaster.ca](mailto:intropsych@mcmaster.ca). Note that during busy periods, it may take up to 48 hours to return your email. Please be patient!

In addition to the course staff, you have been assigned to a tutorial section with your personal **Teaching Assistant (TA)** who will lead your group through weekly discussions, activities, and questions.

### *Course Description*

In this course, we will focus on the biological mechanisms informing Psychology, Neuroscience and Behaviour. In the first half of the course, our research framework will examine several levels of analysis (Development, Evolution, and Neuroscience). In the second half of the course, we will apply these analyses to Sensory Systems and Critical Behaviours.

In combination with Psych 1X03/1N03, students will emerge with the appropriate context, terminology, and skills to specifically support exploration of further courses in Psychology, Neuroscience and Behaviour. However, these are skills that will also transfer well to any discipline you pursue!

## Evaluation

Your final grade in Psychology 1XX3 will be determined by the following measures:

<b>Tutorial Participation</b>	10%
<b>Avenue Quizzes</b>	30%
<b>Avenue QuizTerm</b>	5%
<b>Final Examination</b>	55%
<b>PeerWise Multiple Choice Questions</b> (optional)	5% reweight of final exam
<b>Sona Research Participation</b> (optional)	5% - 8% reweight of final exam

### Tutorial Participation (10%)

Weekly tutorials are an important part of the course and contribute to 10% of your final grade. Your TA will expect **active** participation to create a dynamic learning environment. If you have specific issues with this process, you must speak to the course coordinator as soon as possible.

Your TA will assign you a grade out of 10 every three tutorials based on your participation in one tutorial (5 points), and your attendance in the other two (2.5 points each). To encourage participation during all tutorials, you will not be aware of which tutorial you are being marked for participation. You will be assessed on the elements of participation using the rubric below.

	Points	Description
<b>PARTICIPATION</b>	<b>Excellent</b>	4-5 Consistently exemplifies all three elements of participation
	<b>Satisfactory</b>	3 Occasionally exemplifies some elements of participation
	<b>Poor</b>	1-2 Rarely exemplifies elements of participation
	<b>Absent</b>	0 Does not attend tutorial

Element	Description
<b>Knowledge</b>	Demonstrates knowledge of course material
<b>Insightfulness</b>	Demonstrates insightful and critical thinking
<b>Synergy</b>	Demonstrates positive and constructive interactions with peers

Your TA will also post a content-related question onto your tutorial's Avenue discussion board. Students who choose to answer all three discussion board posts within a marking period will receive a bonus mark (*i.e.* a mark of 8/10 would become 9/10).

**Note: students who regularly attend tutorials but make no contribution to class discussions cannot receive a grade higher than 6 out of 10.** Therefore, it is essential that you **actively participate** if you wish to earn a high participation grade. Your TA can help you with suggestions for demonstrating active participation.

### Avenue Quizzes (30%)

There are 11 weekly online Avenue Quizzes during the semester which will cover material from the assigned Web Modules, the in-person lectures, and assigned readings. For example, Quiz 1 will contain material covered from the Development 1 and 2 web modules, in-person lecture of the week, and Textbook Chapter 1. Each Quiz is "open book" and you may collaborate with your peers but you may NOT post quiz questions online. Avenue Quizzes are an opportunity to assess and consolidate your knowledge of the week's content in preparation for the Final Exam where you will be working independently and without access to supporting resources.

Each Quiz will cover the web module and readings from the same week as covered in tutorial. Each Avenue Quiz will consist of 10 multiple-choice questions. Avenue Quizzes will be made available online every Friday at 6AM and will promptly close on Saturday at 6AM. You will have 20 minutes to complete each quiz once you open it. After closing on Saturday, the Quiz will be reviewed and grades will be released on the following Tuesday. Quiz questions are designed to go beyond mere recall and challenge you to apply and demonstrate your comprehension. In other words, simply memorizing terms will not lead to a favourable grade. To help you

prepare and assess your study, you will have a **Pre-Quiz** each week (released on Monday) that will be graded immediately and will provide you with feedback on why your chosen option was correct/incorrect. You can review the completed Pre-Quiz under the Quizzes tab on Avenue. The Pre-Quiz serves as an excellent learning tool as it is drawn from the same question bank as your actual Friday Quiz, but does not officially count for grades. Note that the Pre-Quiz **MUST** be completed to gain access to the weekly Avenue Quiz.

**Internet Problems**

Internet issues can happen. We always recommend that you complete your quizzes on campus where a reliable Internet connection is guaranteed. While we do not accommodate for individual Internet issues, we can grade your quiz manually if you take screen shots. Please make sure that all photos have your name in the shot.

**Quiz Review**

Quiz scores are released on Avenue Tuesday mornings. They can be found in the Grades section under the Assessments tab. Feedback on your quizzes is available once the grades are released. To see the feedback, go to the quiz page and scroll down to the bottom. You will see all of your past quizzes. Click on the small triangle next to the quiz and select "submissions". This will bring you to a new page with your attempt on that quiz. Click on this attempt and you will be able to see your quiz. After each question you can also expand the feedback to get a more detailed reason why your answer was right or wrong. Students have one week after the quiz grades have been released to bring up any concerns related to a specific question. Please email a screenshot of the question to [intropsych@mcmaster.ca](mailto:intropsych@mcmaster.ca). Don't forget to provide a detailed explanation of your concern.

**Lecture i<clicker Bonus Points**

During your weekly in-class lectures you will be given the opportunity to earn i<clicker bonus points. Each week, you will have a short quiz during class. Each question will be worth a maximum of 2 points. You will receive 1 bonus point for answering the question individually and 1 additional point for answering correctly following collaboration.

All lecture bonus quizzes require an i<clicker remote or a subscription to Reef. Reef allows you to use your smartphone as your remote. These can be purchased at the campus store. We do not recommend purchasing the Reef subscription online as it is much cheaper from the Bookstore. You **must** bring your remote to every lecture if you wish to participate in these bonus opportunities. In addition, you can only earn i<clicker bonus points in your registered lecture section. At the end of the term, your total number of points will earn you the following rewards:

Points	Reward
20 and above	Drop lowest participation grade
30 and above	Drop lowest participation grade + lowest quiz grade
40 and above	Drop lowest participation grade + 2 lowest quiz grade

**Register your i<clicker**

To register your i<clicker please go to <https://app.reef-education.com>  
 You will need to create an account if this is your first time using i<clicker. You will need to use your MacID during your registration. This is what you use to login to Avenue/Mosaic. It is also the first part of your McMaster email address. Do NOT use your student number for this section.

Once you have created an account, you will need to add the course. You can search using Psych 1XX3 (or 1NN3 if you are a Conestoga student). You need to select the correct core section for your course. Failure to bring your remote to lecture or failure to register correctly will result in a zero being assigned to the relevant Lecture Bonus Point quiz.

**Avenue QuizTerm (5%)**

The QuizTerm will take the form of a longer Avenue Quiz. It will be 20 multiple choice questions and you will be

given 40 minutes to complete it. The QuizTerm will open on Friday February 15<sup>th</sup> at 6am and will close on Saturday February 16<sup>th</sup> at 6am. This is a cumulative assessment. It will contain information from Development, Evolution, Neuroscience 1, Neuroscience 2, and Vision. It will cover material presented in the web modules, in-person lecture, and assigned readings.

### **Final Exam (55%)**

A cumulative Final Exam will be written in April as scheduled by the Registrar's Office. If you choose to complete both the optional multiple choice question writing and the research participation option (see below), the weight of your final examination will be reduced from 55% to 42%. The Final Exam covers material presented in web modules, in-person lecture, tutorials, and assigned readings from the entire term.

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

### **What is it?**

This is a self-reporting tool that allows you to report absences for up to 3 days due to illness. You are limited to 1 per semester so use it wisely. The MSAF form should be filled out *immediately* upon your return to class and it is *your* responsibility to follow up with your instructor to discuss the nature of the accommodations. If you miss more than 3 days or exceed 1 request per semester, you must contact your Associate Dean's Office (Faculty Office). At this point, you may be required to provide additional supporting documentation.

**Please use [intropsych@mcmaster.ca](mailto:intropsych@mcmaster.ca) as the contact email on any submitted MSAF, including for tutorials.**

**NOTE:** It is *your* responsibility to catch up on missed work! It is a good idea to get peer contacts during the first week of classes so you can share notes and catch each other up.

### **Where do I go to fill this out?**

MSAF is available in MOSAIC Student Center in the drop down menu under Academics. You can also go to the McMaster website and either search MSAF or type in <http://www.mcmaster.ca/msaf/> in the search bar. At this point, read the page and click agree. From there you will be guided through the process in filling out the form.

### **Absences/Missed Quiz/Tutorial/Exam**

If you must miss a quiz or tutorial due to illness or other situations and you have already used your MSAF, the Course Coordinator requires the permission of your Associate Dean's office to excuse your absence. You may require documentation (e.g. doctor's note, wedding invitation). The Associate Dean's office will make a decision and forward the dates of any excused absence to the Course Coordinator without details of your illness/situation.

## Multiple-Choice Questions – PeerWise

You have the option to reduce the weight of your Final Exam by 5% by creating and answering multiple-choice questions on PeerWise ([https://peerwise.cs.auckland.ac.nz/at/?mcmaster\\_ca](https://peerwise.cs.auckland.ac.nz/at/?mcmaster_ca)). This year we are evaluating the effectiveness of participating on PeerWise. For this reason, you will be placed in one of two groups. Group 1 will need to write 6 multiple-choice questions before the QuizTerm. Group 2 will need to write 6 multiple-choice questions after the QuizTerm but before the final exam. Both groups need to answer 6 multiple-choice questions before the QuizTerm and answer another 6 after the QuizTerm but before the final. In other words all students need to **write 6 multiple-choice questions and answer 12 questions written by other students in the course**. We have divided the course by tutorial section for the two groups. Your TA will announce which group you are in and there is a list posted on Avenue in the Content section under Course Information.

	Before QuizTerm	Between QuizTerm and Final Exam
Group 1	Write 6 Questions Answer 6 Questions	Answer 6 Questions
Group 2	Answer 6 Questions	Write 6 Questions Answer 6 Questions

This is an all or none assignment. You will not receive partial points if you complete or answer less than the required number of questions or if you complete them after your group's deadline. The deadline for the first half is when the QuizTerm closes at 6am on Saturday February 16<sup>th</sup>.

Creating multiple-choice questions is a great way to study for the weekly quizzes and for the final exam. Writing questions requires you to reflect on what you learned in the course and explaining each option in the feedback section helps you to fully understand the concept. Writing plausible distractors is also trickier than you might think. You need to consider all the potential misconceptions and interpretations of a concept. Answering other students' questions may help you identify areas of weakness in your knowledge or view a topic from a perspective you hadn't thought about before.

To participate on PeerWise you must first create an account. You can do this by clicking the registration button in the bottom left corner of the website. You will need 2 things to complete your registration: The course ID and your identifier. **The course ID is: 18164 and your identifier is your MacID (NOT your student number)**. Your MacID is your login for Avenue/Mosaic. It is also the first part of your McMaster email address.

### Writing Questions

Once you have logged in, under the "Your Questions" section click on "View Questions" and you should be directed to a new page. When writing multiple-choice questions you will need to provide the question text as well as 4 options for each question. Make sure your question is very clear and not likely to be ambiguous. Use professional language and avoid slang or spelling mistakes. You will also be asked to provide "tags" for your question. Please use this to indicate the relevant web module(s).

You will also need to provide an explanation for your question. This is one of the criteria for how your question is rated by your fellow students. For this section you should create a list and provide an explanation corresponding to each of the options. Indicate why each answer is right or wrong. This is the same as your weekly quizzes where you receive specific feedback on your answer and not just why one answer is correct.

### Answering Questions

Once you have answered a question, you will be given feedback on the response you selected, and you will be shown an explanation of the answer. You will also be able to see how other students answered. You will then be given an opportunity to select the difficulty level you think best matches the question and to give the question a rating, which you should think about very carefully.

When rating a question, you should be judging two things:

- Whether you think the question is of a high enough quality that it could appear on an Avenue quiz.
- Whether you think the explanation provided with the question is sufficient so that if someone answered the question incorrectly the explanation would help them to understand what they have done wrong.

Other things to keep in mind:

- You should not rate questions differently based on their difficulty – an easy question can be just as useful as a hard question. Everyone is at different levels of understanding.
- Be fair with your ratings – you should justify a poor rating with a comment to the author of the question, or by agreement with a previously written comment.
- Make sure any comments you provide are constructive – you are rating questions written by your peers so provide the kind of feedback that you would find useful and encouraging yourself.
- To encourage everyone to participate equally, all activity on PeerWise is anonymous (however your instructor is able to track contributions).

## Research Participation Option – Sona

You have the option to reduce the weight of your Final Exam from 55% to 50% by completing and attaining **two credits** of research participation with the Department of Psychology, Neuroscience, and Behaviour. If you complete **three credits** you will reduce the weight of your final exam by 6.5%, making your exam worth 48.5%. If you complete **four credits** your exam will be worth 47% (8% reduction). In addition to providing you with extra credit, the research participation option allows you to take part in some of the exciting research at McMaster, and to observe how psychologists conduct their studies. The maximum reduction you can receive is 8%.

The system that the department uses to track research participation is called Sona, which can be accessed at **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 1XX3 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 your 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)**

## Completing Your Research Participation Credit

When you login to Sona for the first time, you will be asked to fill out a short survey. This information is used to 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 Study 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.

### Additional Notes

- You must complete two credits on Sona, and no less, if you wish to earn the 5% exam reweight.
- If you do not wish to participate as a research subject for any reason, you may still earn your research participation credit by *observing* two hours of experiments. If you would like to choose this option, please see the course coordinator at [intropsych@mcmaster.ca](mailto:intropsych@mcmaster.ca)
- **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.

# Welcome to Psychology 1XX3/1NN3

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Welcome to PSYCH 1XX3: Foundations of Psychology, Neuroscience & Behaviour, one of two IntroPsych courses offered at McMaster University (PSYCH 1X03 is offered in Term 1). Your IntroPsych course follows in the tradition of McMaster University's long-standing reputation of excellence in innovative teaching and learning. In this course, you will experience a unique blended learning model that combines online learning technology with traditional face-to-face instruction. On your way to the weekly Quizzes and Final Exam, there are several resources available to help you master the curriculum:

**Course Handbook:** Your course handbook contains valuable information regarding course structure, outlines, and guides for web modules and tutorials.

**Course Textbook:** Your course textbook can be purchased at the McMaster campus store and it contains required readings with testable material for the course.

**MacIntroPsych.com:** There are many supplementary resources that have been specially developed to complement the handbook at MacIntroPsych.com including practice tests, study aids, important links, information about course events, university's services, and tips for academic success. A portion of the proceeds from this courseware go toward the development and maintenance of MacIntroPsych.com

**Avenue to Learn:** Your primary course content will be delivered through the Avenue learning management system located at <http://Avenue.mcmaster.ca>. Avenue allows you access to weekly web modules, course announcements, discussion forums, and grade records. To access Avenue, use your MacID and password. Below are some of the features of Avenue.

**Web Modules:** The most unique feature of MacIntroPsych is the way you receive your primary course content—it's all online! You can access the web modules from the library, your room, or anywhere you have an internet connection. The interactive web modules feature audio, video animations, and vivid graphics. Check out the many advanced features that allow you to interact with the content according to your personal learning style. Use the navigation tools and integrated search function to move about the module. You can test your knowledge with checkpoints, participate in class polls, learn more about faculty related research, and check out interesting links in our media+ section. Be sure to view the assigned web modules **before** you arrive at your weekly lecture and tutorial to stay on schedule, gets points on the bonus quizzes, and actively participate.

**Discussion Boards:** More extended topic discussions are available on the Avenue Discussion Board. Join an existing discussion or start a new thread. Our discussion boards are consistently the most active in comparison to any other course on campus, so jump right in with your opinion!

**Tutorials:** You will join a small tutorial section (capped at 26 students) led by a Teaching Assistant (TA) who is enrolled in or has completed PSYCH 3TT3: Applied Educational Psychology, a course designed specifically to help TAs lead effective tutorials and guide you through MacIntroPsych. Each year, our TAs receive top ratings from students across campus so don't be shy to ask questions. If you think your TA is especially amazing, consider nominating them for the Kathy Steele Award, which honours the top TA of the year. Your TA will guide discussions, lead activities and demonstrations, and answer any questions you might have. Tutorials are updated each year by feedback from students and TAs.

**Lobby Hours:** Have a question or still confused about a specific concept? Need some one-on-one time? Want to meet TAs and students from outside your tutorial? Drop by the lobby of the psychology building (times posted on Avenue) to speak with TAs and students. Can't make it to campus? Drop by online at [appear.in/macintropsych](http://appear.in/macintropsych). If you have administrative questions please see Dr. Michelle Cadieux, the course coordinator, in PC 110. Her office hours are updated on Avenue weekly.



## **How to Use Google Scholar**

Google scholar is a great tool to find peer reviewed journal articles (a few of which will be assigned as your weekly reading). It is quick and simple. Below, we have outlined a few tips to make it even simpler.

### **How do I get there?**

Easy! Type in <http://scholar.google.ca>, or just type “scholar” into Google.

### **I can't seem to access any articles, what do I do?**

Most journals require you to purchase an article before you can access it. Luckily, McMaster has purchased these articles for us! All you have to do is click on “scholar preferences” at the top right of the window. Where it says “Library Links” enter “McMaster” then scroll to the bottom and save preferences. Simple!

### **I am trying to find articles about a general topic, what do I do?**

Use the search box to search articles by their journal, author(s), title, or topic. Another search option is to click on “advanced scholar search” beside the search box. This will allow you to search for specific journals, authors, and titles. You can even search for articles about a particular topic published within a particular time frame and published in a particular journal. Play around with it and get used to this tool. It will come in handy not just this semester, but for much of your university career.

## **Privacy and Conduct**

In this course we will be using AVENUE for the online portions of your course. Students should be aware that when they access the electronic components of this course, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course. The available information is dependent on the technology used. Continuation in this course will be deemed as consent to this disclosure. If you have any questions or concerns about such disclosure, please discuss this with the Course Coordinator.

All posts on discussion forums should be polite and refrain from derogatory and unacceptable language.

## **Changes During the Term**

The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes.

## **A Note About Note Taking**

Students often wonder (and worry) about how extensive their notes should be. This handbook provides outlines with key points and slides reproduced from the web modules to guide your own note taking. There really is no substitute for doing this yourself to learn the material. If, however, you can refer to your notes and answer the practice questions that follow the handbook outlines, you should find yourself in good shape for the weekly quizzes and the exam to come.

## A Note About Tests

With practice questions in this handbook, iclicker bonus point questions, Pre-Quiz and Quizzes, you might be wondering “why are there so many tests?!”. The simple answer is that testing has been shown to be the most effective way to learn information in the long term.

### *Retrieval-Enhanced Learning*

Many students likely view testing as a negative necessity of their courses and would prefer to have as few tests as possible. Thinking about testing this way is due to years of experiencing tests as a high-stakes assessment of learning. This is unfortunate given the fact that testing improves learning. Over the past hundred years, research on the characteristics of human learning and memory has demonstrated that practice testing enhances learning and retention of information (e.g., Dunlosky et al., 2013; Roediger & Karpicke, 2006a). Practice testing can take many forms. It can refer to practicing your recall of information by using flashcards, completing practice problems or questions in a textbook, or completing low-stakes tests as part of a course requirement. This principle was the primary motivation for redesigning the MacIntroPsych course to have weekly, low stakes quizzes.

An excellent example of the power of testing memory comes from a study by Roediger and Karpicke (2006b), wherein undergraduate students were presented with short, educationally relevant texts for initial study. Following initial study students either studied the material again, or took a practice test. A final test was taken after a short retention interval (5 minutes) or long retention interval (2 days). After a short retention interval restudying produced better recall than testing (81% vs. 75%). However, with the long retention interval testing produced significantly better recall than restudying (68% vs. 54%). Thus, after two days, performance declined 27% for students who restudied the material, but only 7% for students that practiced recall.

Interestingly, providing students with the correct answer feedback after a test enhances the positive effect of testing. With feedback, learners are able to correct errors, and maintain their correct responses. Moreover, taking a test and reviewing feedback can enhance future study sessions. Research shows that when a student takes a test before restudying material, they learn **more** from the restudying session than if they restudy without taking a test beforehand (e.g., Karpicke, 2009). This is called test-potentiated learning.

### *Why does testing improve retention of information and how can I use it?*

Explanations for the positive effects of testing focus on how the act of retrieval affects memory. Specifically, it is suggested that retrieving information leads to an elaboration of memory traces and the creation of additional retrieval paths. Together these changes to memory systems make it more likely that the information will be successfully retrieved again in the future. This suggests that testing is not just an assessment tool, but also an effective learning tool.

As a student in this course you can take advantage of retrieval enhanced learning each week in preparation for your weekly Quiz. This begins with studying web module content early in the week (e.g., Sunday or Monday). You can then engage in retrieval practice as a form of review after your initial study session. At this point you should be ready to complete the Pre-quiz and review the feedback (by Wednesday or Thursday). This gives you the opportunity to take advantage of test-potentiated learning when you review content again before completing your Quiz on Friday. This suggested schedule of studying, and incorporation of retrieval practice will help you learn and retain the course content. Engaging in this process each week enhances your long-term memory for course content and therefore advances your preparations for the final exam!

### Suggested further reading:

1. Dunlosky, et al., (2009). *Psychological Science in the Public Interest*, 14(1), 4-58.
2. Karpicke, J. D. (2009). *Journal of Experimental Psychology: General*, 138, 469–486.
3. Roediger, H. L., & Karpicke, J. D. (2006a). *Psychological Science*, 17, 249–255.
4. Roediger, H. L., & Karpicke, J. D. (2006b). *Perspectives on Psychological Science*, 1, 181–210.

## A Note About Multiple Choice Questions and Flashcards

Test questions can challenge you to demonstrate your mastery of course content through 3 levels of increasing difficulty:

1. To *remember* psychological terms, concepts, theories, and methods
2. To *understand* information that has been remembered
3. To *apply* understood information to novel situations (this is called *transfer* and demonstrates true mastery of learned material)

Let's take a look at an example of a psychological concept you will learn:

**Confounding Variable:** An extraneous variable whose presence affects the variables being studied so that the results do not reflect the actual relationship between the variables.

Here is a simple question that challenges your ability to *remember* the term:

1. Which of the following best describes a confounding variable?
  - a. A dependent variable whose absence affects the variables being studied so that the results do reflect the actual relationship between variables.
  - b. An independent variable whose absence affects the variables being studied so that the results do not reflect the actual relationship between variables.
  - c. An extraneous variable whose presence affects the variables being studied so that the results do reflect the actual relationship between variables.
  - d. An extraneous variable whose presence affects the variables being studied so that the results do not reflect the actual relationship between variables.

Here the correct answer is D and requires the ability to *remember* (or look up) a term that is a word-for-word definition of confounding variable taken directly from the course material

2. If a confounding variable is unnoticed, it can lead a researcher to:
  - a. Make a more accurate connection between an independent and dependent variable.
  - b. Make a more accurate connection between two independent variables.
  - c. Make an erroneous association between an independent and dependent variable.
  - d. Make an erroneous association between several confounding variables.

Here the correct answer is C and requires the ability to *understand* information that has been accurately remembered because you must be able to recognize a definition of confounding variable that is composed of different words from the original definition.

3. A researcher gives the same IQ test questions to a group of children and discovers that arm length is positively correlated with number of correct responses. He concludes that longer arms lead to increased intelligence. What confounding variable may account for this finding to weaken this conclusion?
  - a. Some children may have been purposely answering test questions incorrectly.
  - b. Arm length increases with age, so this study may demonstrate that older children outperform younger children.
  - c. IQ is a hypothetical construct that may not accurately reflect intelligence.
  - d. IQ test questions may lack validity and reliability.

Here the correct answer is B and requires the ability to *apply* understood information in a novel situation.

Using flashcards effectively can be a solid method for efficiently building your knowledge to prepare for the three types of test questions. On the back of each flashcard is a ready-prepared definition for the term to help you *remember*. When studying, you should try to rework this definition into your own words to help you *understand*. Finally, create an original example that illustrates the term to help you learn to *apply*.

To provide some additional help applying the knowledge of the flashcards, we have included an additional set of cards on the following page. These flashcards will require you to go deeper with the concepts thus increasing your understanding and retention.

Bonus tip: One of the most robust findings in research on the science of learning is the distributed practice effect, which shows the benefits of spreading out study sessions over time. Let's say Daksh and Sabrin both spend 4 hours studying the same material for a test. Daksh distributes his practice by studying 1 hour a day for 4 days and Sabrin crams all 4 of her study hours in one long study marathon the night before the test. Even with time-on-task equated, Daksh will show significantly improved long-term benefits.

**Describe a movie/television scene that depicts this concept**

MAC   
IntroPsych

**Pick two cards and make a connection between the concepts**

MAC   
IntroPsych

**Describe this concept without using any of the key words written on the flashcard**

MAC   
IntroPsych

**Draw this concept**

MAC   
IntroPsych

**How would you explain this concept to a child?**

MAC   
IntroPsych

**What is the opposite of this concept?**

MAC   
IntroPsych

**What situation in your life has depicted this concept?**

MAC   
IntroPsych

**Create a concept map with all of the cards from a module**

MAC   
IntroPsych

## Campus Resources

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The following are some of the resources available to McMaster University students. Read over each description and familiarize yourself with what is available!

### Student Accessibility Services

Student Accessibility Services offers various supports for students with disabilities. They work with full-time, part-time, and prospective students. SAS assists with academic and disability-related needs, including learning strategies, note-taking, assistive technologies, test & exam administration, accommodations for courses, groups, and events.

**Website:** <http://sas.mcmaster.ca/>

**Phone:** 905-525-9140 ext. 28652

**Teletypewriter (TTY):** 905-528-4307

**Email:** [sas@mcmaster.ca](mailto:sas@mcmaster.ca)

**Office:** McMaster University Student Centre (MUSC) - Basement, Room B107

### Student Wellness Centre

The Student Wellness Centre offers medical & health services, personal counselling, and mental health services.

**Medical & Health:** The Student Wellness Centre provides a wide range of health services for students and will act as their personal health care provider throughout their studies at McMaster. Appointment bookings should be made ahead of time.

**Personal Counselling & Mental Health:** At some point, almost everyone experiences major concerns that may interfere with their success, happiness, and satisfaction at university. Common concerns are relationships, mood disorders, learning disabilities, body image, anxiety, and depression. The Student Wellness Centre provides experienced counsellors for bookings and emergency appointments.

**Website:** <http://wellness.mcmaster.ca/>

**Phone:** 905-525-9140 ext. 27700

**Email:** [wellness@mcmaster.ca](mailto:wellness@mcmaster.ca)

**Office:** MUSC B101

### Emergency First Response Team (EFRT)

The McMaster Students Union Emergency First Response Team (EFRT) is a group of approximately 30 student volunteers who provide emergency medical services to the McMaster Campus, with an average response time of 2-3 minutes. All responders are certified Emergency Medical Responders, with more senior members being trained in International Trauma Life Support (ITLS), and Advanced Medical Life Support (AMLS). The EFRT is available 24/7 throughout the academic year except Thanksgiving, Easter, the Holiday Break, and both Reading Weeks.

**Website:** <https://www.msumcmaster.ca/services-directory/7-emergency-first-response-team-efrt>

**Phone:** "88" from any campus phone or 905-522-4135 on any cell phone

### McMaster Institute for Innovation and Excellence in Teaching and Learning (MIETL)

This institute is designed to enable success in teaching and learning. Their activities include both general and discipline-specific approaches to the promotion of successful learning in all its forms and contexts.

**Website:** [miietl.mcmaster.ca](http://miietl.mcmaster.ca)

**Phone:** 905-525-9140 ext. 24540

**Office:** Mills Library L504

## **Academic Advising in PNB**

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Ann Hollingshead is the academic advisor for anyone in the PNB department at McMaster. She has a lot of knowledge about upper-year courses and can help you make the best decisions about what courses to take. Ann is available Monday – Friday 9:00am-5:00pm for drop-in help or by appointment.

**Email:** [hollings@mcmaster.ca](mailto:hollings@mcmaster.ca)

**Phone:** 905-525-9140 ext. 23005

**Office:** PC 109

Note: For academic advising for other departments, visit your faculty's website (Social Science, Science, Engineering, etc.) for more information.

## **Academic Honesty**

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Academic dishonesty consists of misrepresentation by deception or by other fraudulent means and can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: Grade of F assigned for academic dishonesty), and/or suspension or expulsion from the university. It is the student's responsibility to understand what constitutes academic dishonesty. For information on the various kinds of academic dishonesty please refer to the Academic Integrity Policy, specifically Appendix 3 at: <http://www.mcmaster.ca/univsec/policy/AcademicIntegrity.pdf>

The following illustrates only three forms of academic dishonesty:

- Plagiarism, e.g. the submission of work that is not one's own or for which other credit has been sought or obtained;
- Improper collaboration; or,
- Copying or using unauthorized aids in tests or examinations.

## A Note from Dr. Joe Kim

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We have many talented and passionate members of the Instructional Staff and Development Team that work hard to bring you an outstanding course experience. MacIntroPsych was honoured with the 2010 President's Award for Excellence in Course and Resource Design. Our unique IntroPsych Program has been the topic of academic study and received widespread media attention in the Toronto Star, Globe and Mail, CHCH News, and Maclean's (not to mention Mac's own Daily News). Importantly, the continual development of the MacIntroPsych Blended Learning Environment model is supported by ongoing research. As the Director of the Applied Cognition in Education Lab, I am actively interested in teaching, learning and technology from both an academic and a practical perspective. For more information, visit <http://www.science.mcmaster.ca/acelab/> or follow my twitter feed: @ProfJoeKim

University can sometimes seem like an impersonal and strange place, especially for Level 1 students who are dealing with many adjustments. I hope that in exploring the course resources, you will not forget that there is a real live faculty member responsible for the MacIntroPsych Program—me! I have regular office hours (posted weekly on Avenue) set aside solely to give me a chance to meet and talk with you. If you have a question, comment, complaint, concern, or just want to see and chat with a live faculty member, do come. Many students are reluctant to talk to a faculty member outside of class. Don't give in to the feeling! I have had many great conversations with students that have started off with a supposedly “silly” question.

As a Teaching Professor, my primary responsibilities are teaching and interacting with students; even my area of research interest concerns pedagogy—the formal study of teaching and learning. My goal is to help you understand and appreciate some of the really interesting and important things that we know (or think we know) about human thought and behaviour. In most fields—and as you will see, certainly in psychology—the simplest questions are often the most important and difficult to answer.

One last piece of advice—get involved in the course! MacIntroPsych is a fascinating world waiting to be explored by you! Keep up with the web modules, actively participate in tutorials, join the discussion forums, and attend the monthly Discover Psychology talks on Fridays. It really will make all the difference. Following each web module, I would also encourage you to participate in the feedback surveys. Many of the most popular interactive features were suggested by students just like you. I really do read every single comment and they have contributed enormously to minor and major changes made to all aspects of the course, and this includes the very course handbook you hold in your hands.

On behalf of all the wonderful people that work hard on the frontlines and behind the scenes, best of luck and have a great year!

Dr. Joe Kim



# Web Modules: Interactive and Easy to Navigate

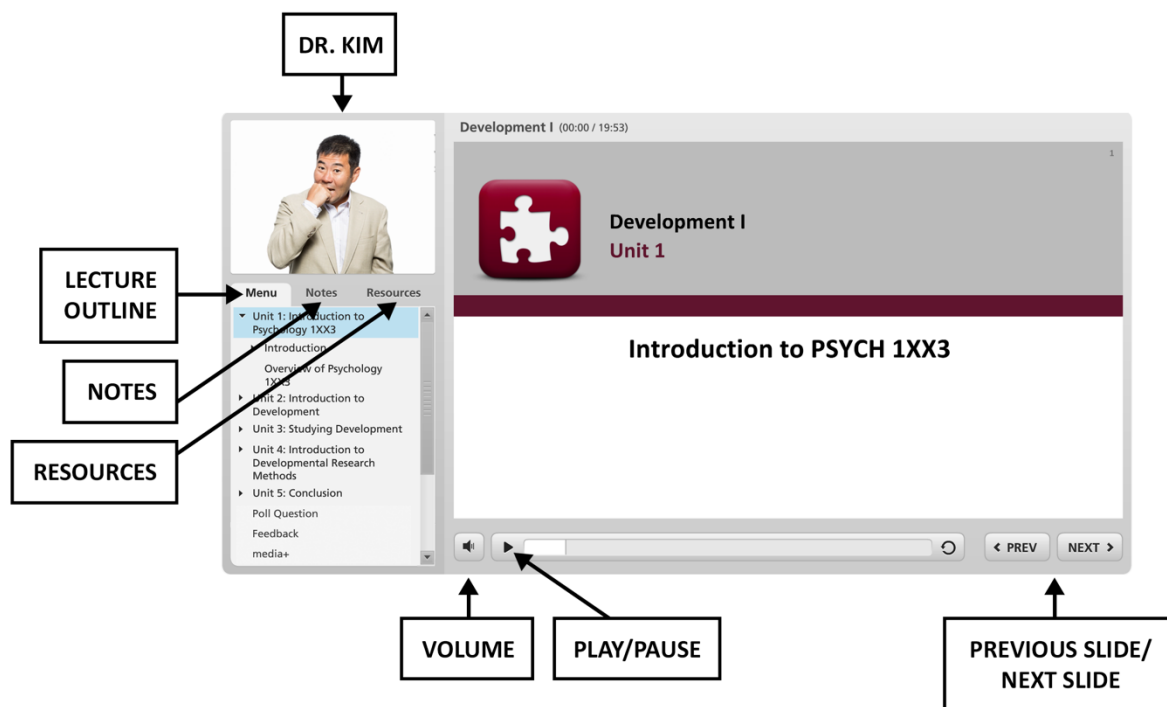
**Navigation:** You can pause, skip, and review each web module whenever you want. Tip: You can use the spacebar to quickly toggle between pause/play.

**Viewing Options:** You can view your web Modules with on an **outline** of the subtopics or view **notes** for a full transcript of Dr. Kim's narration.

**Checkpoints:** Throughout the Modules you will find checkpoint questions designed to assess your understanding.

**Polls:** Share your opinion on topical questions related to the Module.

**Resources & Media+:** Watch videos and find documents related to the web module. This is the place to learn more about topics you enjoyed.



## Course Content Schedule for Psychology 1XX3/1NN3 – Winter 2019

The general schedule for this course content is given below. Any changes to this structure will be announced on Avenue. It is your responsibility to keep up-to-date with any schedule changes.

Week of	Web Module Topics	Chapter Readings	Note
Jan 7	Development 1 & 2	1	Quiz 1
Jan 14	Evolution 1 & 2	2	Quiz 2
Jan 21	Neuroscience 1	3	Quiz 3
Jan 28	Neuroscience 2	4	Quiz 4
Feb 4	Vision	5	Quiz 5
Feb 11	Review Week		QuizTerm
Feb. 18	<b>READING WEEK</b>		<b>NO CLASSES</b>
Feb 25	Colour Perception	6	Quiz 6
Mar 4	Form Perception 1 & 2	7	Quiz 7
Mar 11	Audition	8	Quiz 8
Mar 18	Hunger and the Chemical Senses	Journal Article	Quiz 9
Mar 25	Psychological Disorders 1 & 2	9	Quiz 10
April 1	No Web Module	10	Quiz 11
April 8	---	---	Final In-Person Lecture No Tutorial

**Avenue Quizzes open each week on Friday at 6am and close promptly on Saturday at 6am**