

**Course Details**

Instructor

Dr. Ayesha Khan  
Office Hours & Location: See details on *Avenue to Learn*  
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**Please include the course code (Psych 2GG3) in the subject of all E-mails.**

Course Description

This course surveys principles of learning theories and habit formation along with measurement and assessment of behaviour through theoretical, experimental, and real-world applications in humans and in animals.

Students first understand Learning Theory from a historical perspective by exploring how philosophers such as Aristotle and Plato explained learning in human and non-human organisms and how earlier constructs have shaped later approaches and ethical practices in human and/or animal research and husbandry. Next, a deeper understanding of theoretical concepts and experimental data are studied by understanding the works of key figures, not limited to but including E.L. Thorndike (often called the founder of Learning Theory), B.F. Skinner and J. B. Watson (Operant Conditioning), I. P. Pavlov (Classical Conditioning), and A. Bandura (Social Learning Theory). Students also explore psychological measurement and assessment of behaviour in humans and animals as these apply in a real world setting including the effects of punishment and reward, assessment of stress in laboratory and zoo animals, and through the understanding of methodological concepts in psychological testing such as reliability and validity.

**Course Objectives:** By the end of this course, students are able to [1] explain the precursors of modern learning theories, [2] understand the role of ethics in human and animal research, [3] provide descriptions of theory and research related to learning principles from leading thinkers including Thorndike, Skinner, Watson, Pavlov, and Bandura, [4] further understand how classical conditioning, operant conditioning, and social learning theory are used in real-world settings (e.g., parenting, animal training, marketing and advertisement), [5] explain the methodological and technical principles of behavioural and psychological testing (i.e., observational methods, ethograms, test scores and norms, reliability, validity and some practice in test construction) and, [6] describe how habits are created, maintained, and how they might be changed.

**Tutorials:** Students read a popular press book by Pulitzer prize-winning author Charles Duhigg, investigative reporter from The New York Times, “The Power of Habit: Why We Do What We Do in Life and Business.” This book contains information from research in psychology and neuroscience on habit formation and behaviour change. Tutorials require student teams (roughly 3-4 persons per team) to develop a 15-to-20-minute interactive workshop (also known as a *Learning Lab*) with the purpose of engaging others in an experience that is directly related to book readings for that week. A major aim of each Learning Lab is to deepen understanding of book concepts through an experiential exercise. Each team is required to meet with their Teaching Assistant (TA) one week prior to delivery of the Learning Lab with a final (written and timed) plan that must also contain a title for the lab.

The purpose of Learning Labs is to help students think about the habit book in a meaningful manner so that LEARNING can occur by DOING. This is a student-centered experiential learning opportunity where students get the chance to create a valuable experience for others by partnering with TAs to create tutorial experiences that allow for them to be innovative, creative, and assume responsibility for their learning along with the learning of their peers.

**Online quizzes:** Quizzes are administered online via *Avenue to Learn*.

**Midterm & Final Exam:** There is one midterm and one final exam. The final exam is cumulative in nature and covers all course content.

Lecture, guest lectures, and textbook readings are tested equally on both exams.

Lectures (three hours); one term

Prerequisite(s): One of ISCI 1A24, PSYCH 1F03, 1N03, 1X03 and registration in Level II or above; or registration in Level II or above of an Arts & Science or B.H.Sc. (Honours) program

Required Materials

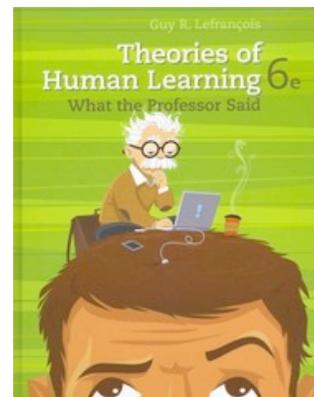
**Textbooks by other authors OR older editions of the Lefrançois text are not acceptable for this course.**

1. Theories of Human Learning: What the Professor Said  
6th Edition

Author(s): Lefrançois, G.R.  
Publisher: Cengage Learning  
Copyright year: © 2012 Pages: 464

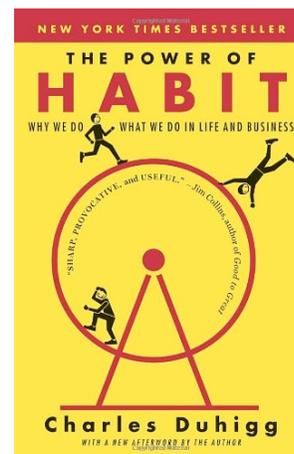
eText: ISBN-13 9781133323853 | ISBN-10 1133323855  
Print: ISBN-10 1111829748 | ISBN-13 9781111829742

Information about alternative forms of this text can be found online:  
<http://www.nelsonbrain.com/shop/ISBN/9781111829742?cid=APL1>



2. The Power of Habit: Why We Do What We Do in Life and Business

Author: Duhigg, C  
Publisher: Random House Publishing Group  
Copyright year: © 2012 Pages: 416  
Print: ISBN-13 9780812981605



Evaluation

Final course grade will be based on:

1. Midterm (20%)
2. Learning Plan & Lab (20%)
3. Tutorial Participation (10%)
4. Quizzes (Best 8 out of 9, 10%)
5. Cumulative Final exam (40%) to be scheduled by the Office of the Registrar

It is not possible to change the weight associated with each course component.

Your final course grade is calculated based on the course components listed above. It is not possible to add bonus marks (even in the form of a few decimal points).

|                                      |   |
|--------------------------------------|---|
| Midterm, Quizzes, & Final Exam       | <p>Online quizzes are held throughout the semester.</p> <p>The purpose of the quizzes is to encourage the reading of the assigned texts and the review of lecture material and to think about course content through critical analysis.</p> <p>Information presented via guest speakers, video or audio format is testable on quizzes, the midterm, and the final exam.</p> <p>Due to copyright issues, it may not be possible to post videos/audio recordings presented in class on <i>Avenue to Learn</i>. If you miss a class, please ask a fellow classmate for lecture notes.</p> <p>The midterm exam will be two hours in duration covering questions from all chapters, lecture notes, and audio/video/guest speaker presentations.</p> <p>The final exam will be 2.5 hours in duration and cumulative, covering questions from all chapters, lecture notes, guest speakers, and audio/video presentations from throughout the semester.</p> <p>Readings from the Duhigg book are not tested on the midterm or the final exam.</p> |
| Web Postings                         | <p>In this course we will be using <i>Avenue to Learn (Avenue)</i>.</p> <p>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 <i>may</i> 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 consent to this disclosure. If you have any questions or concerns about such disclosure please discuss this with the course instructor.</p>  |
| <b>Course Policies</b>               |   |
| Missed Tests & Quizzes               | <p><b>Please read this section carefully: No make-up quizzes are offered for this course.</b> If you miss a quiz you will receive a mark of zero for that quiz. We simply don't have the person-power to create permutations associated with final grade calculations. <b>To keep it simple, you have the option to miss ONE quiz without penalty (regardless of MSAF submission).</b></p> <p><b>If you miss the midterm you MUST write a make-up test.</b></p>   |
| McMaster Student Absence Form (MSAF) | <p>If you are absent from the university for a minor medical reason, lasting fewer than 5 days, you may report your absence, <b>once per term</b>, without documentation, using the MSAF (<a href="http://www.mcmaster.ca/msaf/">http://www.mcmaster.ca/msaf/</a>). Absences for a longer duration or for other reasons must be reported to your Faculty/Program office, with documentation, and relief from term work may not necessarily be granted.</p> <p><b>When using the MSAF, report your absence to <a href="mailto:msaf.2gg3@gmail.com">msaf.2gg3@gmail.com</a></b></p>   |
| Other Academic Matters               | <p>If you require a specific grade in this course, please make sure that you create a schedule for yourself that will allow for you to: (1) complete all readings and course requirements, (2) attend all class meetings, (3) create a realistic study schedule, and (4) visit the Instructor during office hours for additional help. If you are struggling with course material, ask for help <u>early</u>!</p>   |
| Bonus Marks                          | <p>Your final course grade will be calculated based on the course components listed on the second page. It is not possible to add bonus marks.</p>  |

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|-------------------|--|
| Learning Lab Plan | <p>All written work is marked on creativity, grammar, clarity of writing, and organization. Your Learning Lab Plan should be no less than two pages double-spaced and a maximum of five pages double-spaced (depending on the complexity of the lab). The plan should contain the following major components:</p> <ol style="list-style-type: none"> <li>1. Title of the Learning Lab</li> <li>2. Two/three Learning Goals/Objectives: What do you hope for participants to gain from this lab?<br/>Each learning objective must clearly connect with chapter content. Be sure to explicitly state what part(s) of the chapter is/are the focus of your workshop and how each learning objective ties with your chosen content and workshop activity.</li> <li>3. Knowledge Gained: How will you assess if participants are meeting your learning objectives?</li> <li>4. Learning lab details with specific references to the amount of time spent on each part of the lab.</li> </ol> <p>You may choose any style of referencing (e.g., APA or MLA) depending on your familiarity. It is preferred that you select a citation style typically used in the sciences, social sciences, or medical sciences. Once you have selected a citation style, please continue to use that specific style throughout the report.</p> <p>Each group must meet with their TA, one week prior to their Learning Lab. During this meeting, the group will present a final draft of the lab plan. If the plan is not complete, 25% will be deducted from the learning lab grade. The final plan is submitted only after feedback from the TA.</p> |
| Turnitin.com      | <p>In this course we will be using a web-based service (Turnitin.com) to reveal plagiarism. Students will be expected to submit their work electronically to Turnitin.com so that it can be checked for academic dishonesty. Students who do not wish to submit their work to Turnitin.com must still submit a copy to the instructor. No penalty will be assigned to a student who does not submit work to Turnitin.com. All submitted work is subject to normal verification that standards of academic integrity have been upheld (e.g., on-line search, etc.). To see the Turnitin.com Policy, please go to: <a href="http://www.mcmaster.ca/academicintegrity">http://www.mcmaster.ca/academicintegrity</a> Students are encouraged to visit the Centre for Student Development to improve their writing skills (MUSC B107 at x:24711). For information about the Writing Clinic and other services, visit the Centre's website: <a href="http://studentsuccess.mcmaster.ca/academic-skills/writing-support-services.html">http://studentsuccess.mcmaster.ca/academic-skills/writing-support-services.html</a></p>  |
| Penalties         | <p><b>All Learning Lab plans must be submitted via Dropbox in Microsoft® WORD</b>, on the evening before each LAB (before 11PM).<br/>Do not submit lab plans by email and do not slide them under the instructor's door.</p> <p>Late assignments are penalized 5% a day.<br/>This 5% penalty also applies to the use of additional pages to complete the lesson plan.</p>  |
| Plagiarism        | <p>Honesty and fairness are considered fundamental to the university's mission, and, as a result, all those who violate those principles are dealt with as if they were damaging the integrity of the university itself.</p> <p>When students are suspected of cheating or a similar academic offence, they are typically surprised at how formally and seriously the matter is dealt with and how severe the consequences can be if it is determined that cheating did occur.</p> <p>You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity.</p>  |

Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behaviour 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 your responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the Academic Integrity Policy, located at <http://www.mcmaster.ca/academicintegrity>

The following illustrates only three forms of academic dishonesty:

1. Plagiarism, e.g. the submission of work that is not one’s own or for which other credit has been obtained.
2. Improper collaboration in-group work.
3. Copying or using unauthorized aids in tests and examinations.

McMaster University  
Grading Scale

| Grade | Equivalent Grade Point | Equivalent Percentages |
|-------|------------------------|------------------------|
| A+    | 12                     | 90-100                 |
| A     | 11                     | 85-89                  |
| A-    | 10                     | 80-84                  |
| B+    | 9                      | 77-79                  |
| B     | 8                      | 73-76                  |
| B-    | 7                      | 70-72                  |
| C+    | 6                      | 67-69                  |
| C     | 5                      | 63-66                  |
| C-    | 4                      | 60-62                  |
| D+    | 3                      | 57-59                  |
| D     | 2                      | 53-56                  |
| D-    | 1                      | 50-52                  |
| F     | 0                      | 0-49                   |

Document Submission

Any claims of documents submitted to locations/persons apart from those indicated in this course syllabus will NOT be accepted.

Course News

You are also responsible for checking *Avenue* on a regular basis (on the morning of each class meeting at minimum) to ensure that you are up-to-date on important announcements related to this course.

Accessibility Services

McMaster University Student Centre (MUSC) Basement, Room B107, or telephone 905-525-9140 at x:28652  
<http://sas.mcmaster.ca/>

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| Changes to the Course Outline | <p>At certain points in the course it may make good sense to modify the schedule outlined.</p> <p>The instructor reserves the right to modify elements of the course and will notify students accordingly, both in class and on <i>Avenue</i>.</p> <p>Posted changes take precedence over this course outline.</p> <p>The University may change the dates and deadlines for any or all courses in extreme circumstances.</p> <p>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.</p> |
| Lecture Recordings            | <p>Students may make audio recordings of the lectures, for personal use only and not to be posted online, emailed, distributed or otherwise shared.</p> <p>Video recordings are prohibited.</p> <p>Students should inform the instructor in advance if they wish to make an audio recording.</p>  |

### Course Schedule

| Date          | Topic   | Associated Readings |
|---------------|---|---------------------|
| January 9th   | Human Learning  | Chapter 1           |
| January 16th  | Early Behaviorism: Pavlov, Watson, and Guthrie                      | Chapter 2           |
| January 23rd  | The Effects of Behaviour: Thorndike and Hull                        | Chapter 3           |
| January 30th  | Operant Conditioning: Skinner's Radical Behaviourism                | Chapter 4           |
| February 6th  | Evolutionary Psychology, Learning, Biology, and the Brain           | Chapter 5           |
| February 13th | Psychopharmacology  | Lecture Notes Only  |
| February 20th | <b>Reading Week (No Class)</b>                                      |                     |
| February 27th | <b>Midterm 7:00 – 9:00PM<br/>(Chapters 1 – 5 inclusive)</b>         |                     |
| March 6th     | Transition to Modern Cognitivism: Hebb, Tolman, and the Gestaltists | Chapter 6           |
| March 13th    | Three Cognitive Theories: Bruner, Piaget, Vygotsky                  | Chapter 7           |
| March 20th    | Motivation  | Chapter 10          |
| March 27th    | (Psychological) Assessment  | Lecture Notes Only  |
| April 3rd     | Social Learning   | Chapter 11          |

| <b>Quizzes</b><br>You must complete each quiz in ONE sitting and within one hour. That is, once a quiz is launched, you must answer all questions at one time and within one hour. You cannot exit the quiz then return to it at a later time. | <b>Dates</b><br>Each quiz is released at 5PM on a Friday until 5PM the following Friday.<br>If you submit a MSAF, we do not have the capacity to create make-up quizzes. Best 8 quizzes will count out of 9 for the final course grade. |
|--|---|
| Quiz 1   | January 19  |
| Quiz 2 & 3   | January 26, February 2nd  |
| Quiz 4, 5, & 6   | February 9th, February 16th, March 9th  |
| Quiz 7   | March 16th  |
| Quiz 8, 9  | March 23rd, March 30th  |

| <b>Tutorials &amp; Learning Labs</b>   | <b>Due Dates</b><br>*All Learning Lab Plans are to be completed ONE WEEK prior to the Lab. Each plan is to be submitted to AVENUE the evening prior each Lab (before 11PM). Please submit to the DROPBOX folder created for your tutorial section. |
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| No Tutorial  | Week of January 8th  |
| Tutorials Begin<br><br>Meet & Greet With TAs and tutorial members<br><i>Learning Lab Topic Selection</i><br><br>The Habit Loop: How Habits Work<br>Read Chapter 1 from Duhigg to prepare for tutorial<br>TA Advising During Tutorial | Week of January 15th   |
| The Craving Brain: How to Create New Habits<br><i>Learning Labs begin</i><br>Read Chapter 2 to prepare for tutorial  | Week of January 22nd   |
| The Golden Rule of Habit Change: Why Transformations Occur<br>Read Chapter 3 to prepare for tutorial   | Week of January 29th   |
| Keystone Habits: Which Habits Matter Most<br>Read Chapter 4 to prepare for tutorial  | Week of February 5th   |
| No Tutorial  | Week of February 12th  |
| Starbucks and the Habit of Success: When Willpower Becomes Automatic<br>Read Chapter 5 to prepare for tutorial   | Week of February 26th  |
| The Power of a Crisis: How Leaders Create Habits Through Accidents and Design<br>Read Chapter 6 to prepare for tutorial  | Week of March 5th  |
| The Power of a Crisis: How Leaders Create Habits Through Accidents and Design<br>Read Chapter 6 to prepare for tutorial  | Week of March 12th   |
| How Target Knows What You Want Before You Do: When Companies Predict (and Manipulate) Habits<br>Saddle<br>Read Chapter 7 to prepare for tutorial   | Week of March 19th   |
| The Neurology of Free Will: Are We Responsible for Our Habits?<br>Read <b>Chapter 9</b> to prepare for tutorial  | Week of March 26th   |