SOCSCI 2UA3: Principles of Applied Behaviour Analysis 1

# Course information:

* Date: Tuesdays 19:00-22:00 (September 7-December 7, 2022)
* Instructor: Monica Hughes
* Classroom: ABB 136
* Office hours: By appointment
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# Course Overview

## Course Description:

This course presents an introductory examination of the principles of applied behavior analysis and how they can be applied to clinical populations, such as persons with autism.

## Course Objectives:

Upon completion of this course, students will be able to:

1. State the underlying principles of Applied Behaviour Analysis.
2. Explain the differences between various models within behavioural psychology.
3. Identify various principles of Applied Behaviour Analysis and state how they can be applied to problems of social importance.
4. Explain how treatment effectiveness is determined through data collection, graphing and analysis.

## Course Format

Information will be presented through online video lectures, case study analyses and discussion.

For approximately one-third of the class time, information will be given in a lecture-discussion format. This information will focus on a selected theoretical framework as applied within Applied Behaviour Analysis practice with individuals.

## Required Texts:

1. Behaviour Analysis for Lasting Change, Fourth Edition. Mayer, G. Roy; Sulzer-Azaroff, Beth; Wallace, Michele (2014). Sloan Publishing. ISBN 13: 978-1-59738-085-0.

## Additional Reading (will be posted on Avenue to Learn):

1. Baer, Wolf, Risley (1968) Some Current Dimensions of Applied Behavior Analysis, Journal of Applied Behaviour Analysis, Vol 1 (91-97). <http://seab.envmed.rochester.edu/jaba/articles/1968/jaba-01-01-0091.pdf>

# Course Requirements/Assignments

## Requirements Overview and Deadlines

1. Weekly Online Quizzes (10 x 3% = 30%) – See course schedule for due dates
2. Case Study Discussions (4 x 5% = 20%) – See course schedule for due dates
3. Case Study Group Assignment (4 x 5% = 20%) – See course schedule for due dates
4. Final Exam: Cumulative (30%) –as per exam details below

## Requirement/Assignment Details

1. Weekly Quizzes:
* Quizzes will be available on Tuesday of each week and close on Friday at 11:59 pm (starting week 2). Content for the quizzes will be derived from online lectures, readings and case study discussions. These quizzes are not cumulative. Quizzes will be first submission only and a time limit of 30 minutes.
1. Online Case Study Discussions:
* Online case study discussions will take place 4/12 weeks (see course schedule below). The case study will be posted every Monday and discussions will close every Friday at 11:59 pm. Students will be expected to read the case study and make one original post plus comment on at least 3 other student’s posts.
1. Case Study Group Assignment:
* In small groups students will be required to analyze a case study, and complete mini-assignments related to the concepts and principles of ABA. Components of the case study will be due throughout the semester (see course schedule below).
	+ Operational Definition (5%): Create an operational definition for the behaviours in your case study. Include all of the relevant problem behaviours. If you can also come up with a “replacement” behaviour for your problem behaviour, add in an operational definition for that.
	+ Data Collection (5%): Describe what type of data collection measures you will be using to measure your problem behaviours. Create a data sheet you could use to track this behaviour and create hypothetical baseline data in an excel graph.
	+ Preference Assessment (5%): Conduct a forced-choice preference assessment and a multiple stimulus without replacement assessment. Select items to use in the assessment based on the profile discussed in your case study. Use the same stimuli in each assessment and compare the results across assessments. Write up a summary including a graph for each of the assessments.
	+ Behaviour Program (5%): Using the principles of applied behaviour analysis that you have learned about in class, develop a program that teaches a novel skill and plans for generalization and maintenance.
1. Final Exam (30%):
* The final exam will be cumulative and will include content covered in lectures, case study discussions and readings over the course of the semester. There will be a time limit of 2 hours for the final exam. The final exam review will be available one week before the exam.

# Assignment Submission and Grading

## Form and Style

Written assignments must be typed and double-spaced and submitted with a front page containing the title, student’s name, student number, and the date. Number all pages (except title page).

## Avenue to Learn

In this course we will be using Avenue to Learn. 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 consent to this disclosure. If you have any questions or concerns about such disclosure please discuss with the course instructor.

## Submitting Assignments & Grading

Assignments and quizzes must be completed and submitted online by Friday at 11:59 pm the week they are due. Grades will be uploaded the following week for weekly assignments/quizzes. A late penalty of 5 percentage points per day will apply after the due date (weekends included).

## Privacy Protection

In accordance with regulations set out by the Freedom of Information and Privacy Protection Act, the University will not allow return of graded materials by placing them in boxes in departmental offices or classrooms so that students may retrieve their papers themselves; tests and assignments must be returned directly to the student. Similarly, grades for assignments for courses may only be posted using the last 5 digits of the student number as the identifying data.

## Extreme Circumstances

The University reserves the right to change the dates and deadlines for any or all courses in extreme circumstances (e.g., severe weather, labour disruptions, etc.). Changes will be communicated through regular McMaster communication channels, such as McMaster Daily News, A2L and/or McMaster email.

# Student Responsibilities

* Students are expected to contribute to the creation of a respectful and constructive learning environment. Students should read material before viewing the online lecture material and completing weekly assignments.

## Conduct Expectations

As a McMaster student, you have the right to experience, and the responsibility to demonstrate, respectful and dignified interactions within all of our living, learning and working communities. These expectations are described in the [Code of Student Rights & Responsibilities](https://secretariat.mcmaster.ca/app/uploads/Code-of-Student-Rights-and-Responsibilities.pdf) (the “Code”). All students share the responsibility of maintaining a positive environment for the academic and personal growth of all McMaster community members, whether in person or online.

It is essential that students be mindful of their interactions online, as the Code remains in effect in virtual learning environments. The Code applies to any interactions that adversely affect, disrupt, or interfere with reasonable participation in University activities. Student disruptions or behaviours that interfere with university functions on online platforms (e.g. use of Avenue 2 Learn, WebEx or Zoom for delivery), will be taken very seriously and will be investigated. Outcomes may include restriction or removal of the involved students’ access to these platforms

## Academic Integrity

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. **It is your responsibility to understand what constitutes academic dishonesty.**

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](http://www.mcmaster.ca/academicintegrity.).

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 obtained.
* Improper collaboration in group work.
* Copying or using unauthorized aids in tests and examinations.

## Authenticity/Plagiarism Detection

Some courses may use a web-based service (Turnitin.com) to reveal authenticity and ownership of student submitted work. For courses using such software, students will be expected to submit their work electronically either directly to Turnitin.com or via an online learning platform (e.g. A2L, etc.) using plagiarism detection (a service supported by Turnitin.com) so it can be checked for academic dishonesty. Students who do not wish their work to be submitted through the plagiarism detection software must inform the Instructor before the assignment is due. No penalty will be assigned to a student who does not submit work to the plagiarism detection software. All submitted work is subject to normal verification that standards of academic integrity have been upheld (e.g., on-line search, other software, etc.). For more details about McMaster’s use of Turnitin.com please go to [www.mcmaster.ca/academicintegrity](http://www.mcmaster.ca/academicintegrity)

## Courses with an On-line Element

Some courses may use on-line elements (e.g. e-mail, Avenue to Learn (A2L), LearnLink, web pages, capa, Moodle, ThinkingCap, etc.). Students should be aware that, when they access the electronic components of a course using these elements, 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 a course that uses on-line elements will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure please discuss this with the course instructor.

## Copyright and Recording

Students are advised that lectures, demonstrations, performances, and any other course material provided by an instructor include copyright protected works. The Copyright Act and copyright law protect every original literary, dramatic, musical and artistic work, including lectures by University instructors The recording of lectures, tutorials, or other methods of instruction may occur during a course. Recording may be done by either the instructor for the purpose of authorized distribution, or by a student for the purpose of personal study. Students should be aware that their voice and/or image may be recorded by others during the class. Please speak with the instructor if this is a concern for you.

## Online Proctoring

Some courses may use online proctoring software for tests and exams. This software may require students to turn on their video camera, present identification, monitor and record their computer activities, and/or lock/restrict their browser or other applications/software during tests or exams. This software may be required to be installed before the test/exam begins

## Academic Accommodation of Students with Disabilities

Students with disabilities who require academic accommodation must contact [Student Accessibility Services](https://sas.mcmaster.ca/) (SAS) to make arrangements with a Program Coordinator. Student Accessibility Services can be contacted by phone 905-525-9140 ext. 28652 or e-mail sas@mcmaster.ca for further information, consult McMaster University’s [Academic Accommodation of Students with Disabilities](https://www.mcmaster.ca/policy/Students-AcademicStudies/AcademicAccommodation-StudentsWithDisabilities.pdf) policy.

## Academic Accommodation for Religious, Indigenous and Spiritual Observances (RISO)

Students requiring academic accommodation based on religious, indigenous or spiritual observances should follow the procedures set out in the [RISO](https://secretariat.mcmaster.ca/app/uploads/2019/02/Academic-Accommodation-for-Religious-Indigenous-and-Spiritual-Observances-Policy-on.pdf) policy. Students requiring a RISO accommodation should submit their request to their Faculty Office normally within 10 working days of the beginning of term in which they anticipate a need for accommodation or to the Registrar’s Office prior to their examinations. Students should also contact their instructors as soon as possible to make alternative arrangements for classes, assignments, and tests.

Please review the [RISO information for students in the Faculty of Social Sciences](https://socialsciences.mcmaster.ca/current-students/riso) about how to request accommodation.

## 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”.

## E-mail Communication Policy

Effective September 1, 2010, it is the policy of the Faculty of Social Sciences that all e-mail communication sent from students to instructors (including TAs), and from students to staff, must originate from the student’s own McMaster University e-mail account. This policy protects confidentiality and confirms the identity of the student. It is the student’s responsibility to ensure that communication is sent to the university from a McMaster account. If an instructor becomes aware that a communication has come from an alternate address, they may not reply.

## Extreme Circumstances

The University reserves the right to change the dates and deadlines for any or all courses in extreme circumstances (e.g., severe weather, labour disruptions, etc.). Changes will be communicated through regular McMaster communication channels, such as McMaster Daily News, A2L and/or McMaster email.

# Course Weekly Topics and Readings

## Week 1: September 6-9 (Asynchronous Online Lecture)

Topics:

* Introduction to course and course requirements

Assignments/Quiz Due:

* NONE

Readings:

* Chapter 1: Achieving Lasting Change Through Behaviour Analysis
* Chapter 2: Designing Effective Strategies of Change – Essential Building Blocks

## Week 2: Sept 13

Topics:

* Introduction and history of ABA
* Dimensions of behaviour
* Setting up for success
* Goal Setting, choosing your target for behaviour change

Assignments/Quiz Due:

* + Quiz 1 (Sept 16)

Readings:

* + Chapter 3: Preparing an Environment Supportive of Behaviour Change
	+ Chapter 4: Sharpening the Focus by Refining Goals and Objectives
	+ Baer, Wolf, Risley (1968). Some current dimensions of applied behaviour analysis. *Journal of Applied Behaviour Analysis, 1*, 91-97. (posted on Avenue to Learn)

## Week 3: Sept 20

Topics:

* + Data collection
	+ Graphing and analyzing data

Assignments/Quiz Due:

* + Quiz 2 (Sept 23)
	+ Case Study Group Assignment: Operational Definition (Sept 23)

Readings:

* + Chapter 7: Organizing for Behaviour Change by Collecting Useful Data
	+ Chapter 8: Optimizing Client Progress by Monitoring Behaviour Change: Recording, Graphing, and Analyzing Patterns of Change

## Week 4: Sept 27

Topics:

* + Positive and negative reinforcement
	+ Preference assessments

Assignments/Quiz Due:

* Case Study Discussion 1 (Sept 30)
* Quiz 3 (Sept 30)

Readings:

* + Chapter 5: Fueling Behaviour Change with Reinforcement
	+ Chapter 6: Increasing Behaviour by Developing and Selecting Powerful Reinforcers

## Week 5: Oct 4

Topics:

* + Implementing reinforcement effectively
	+ Ratio and interval schedules of reinforcement

Assignments/Quiz Due:

* + Quiz 4 (Oct 7)
	+ Case Study Group Assignment: Data Collection (Oct 7)

Readings:

* + Chapter 11: Rapidly Attaining Positive Change: Implementing Reinforcement Effectively
	+ Chapter 22: Maintaining Behaviour: Ratio and Related Schedules of Reinforcement
	+ Chapter 23: Maintaining Behaviour by Arranging Time Based Schedules of Reinforcement

MIDTERM BREAK (Oct 10-14)

## Week 6: Oct 18

Topics:

* Group reinforcement contingencies
* Differential reinforcement procedures

Assignments/Quiz Due:

* Quiz 5 (Oct 21)
* Case Study Discussion 2 (Oct 21)

Readings:

* Chapter 12: Promoting and Supporting Group Change: Programs and Packages
* Chapter 29: Constructively Preventing and Reducing Behaviour: Differential Reinforcement Procedures

## Week 7: Oct 25

Topics:

* Antecedent strategies for reducing behaviour
* Prompting and prompt fading strategies

Assignments/Quiz Due:

* Quiz 6 (Oct 28)
* Case Study Group Assignment: Preference Assessment (Oct 28)

Readings:

* Chapter 27: Preventing Unwanted Behaviour: Antecedent Methods
* Chapter 18: Prompting Procedures and Instructional Programs
* Chapter 20: Promoting Independence: Shifting and Expanding Stimulus Control

## Week 8: Nov 1

Topics:

* Teaching a new behaviour using shaping and chaining
* Verbal behaviour operants

Assignments/Quiz Due:

* Quiz 7 (Nov 4)
* Case Study Discussion 3 (Nov 4)

Readings:

* Chapter 13: Teaching New Behaviour-Shaping
* Chapter 14: Teaching Complex Behaviour
* Chapter 19: Teaching, Expanding and Refining Verbal Behaviour

## Week 9: Nov 8

Topics:

* Positive and negative punishment
* Extinction procedure

Assignments/Quiz Due:

* Quiz 8 (Nov 11)

Readings:

* Chapter 28: Reducing Unwanted Behaviour: Extinction
* Chapter 30: Reducing Behaviour with Negative Punishment: Response Cost and Timeout
* Chapter 31: Reducing Behaviour with Positive Punishment while Minimizing Coercion

## Week 10: Nov 15

Topics:

* + Introduction to stimulus control
	+ Promoting stimulus control in teaching

Assignments/Quiz Due:

* + Quiz 9 (Nov 18)
	+ Case Study Discussion 4 (Nov 18)

Readings:

* + Chapter 15: Attaining Complex Behaviour by Promoting and Supporting Antecedent Control
	+ Chapter 16: Selecting and Applying Methods for Promoting Stimulus Control
	+ Chapter 17: Achieving Stimulus Control

## Week 11: Nov 22

Topics:

* + Generalization and maintenance of skills
	+ Ethics of behaviour analysis

Assignments/Quiz Due:

* + Quiz 10 (Nov 25)

Readings:

* + Chapter 21: Generalization: Expanding Stimulus Control
	+ Chapter 32: Achieving Lasting Change Responsibly
	+ BACB Code of Ethics (posted on Avenue to Learn)

## Week 12: Nov 29

Topics:

* + Writing a behaviour program
	+ Final exam review

Assignments/Quiz Due:

* + Case Study Group Assignment: Behaviour Program (Dec 2)

Final Exam

* To be scheduled during exam period