

Faculty of Health
Department of Psychology
PSYC 4180 6.0 Section H: CRITICAL THINKING IN PSYCHOLOGY
Online via Zoom
Fall/Winter, 2022-2023

Instructor and T.A. Information

Instructor	Michaela Hynie
Email	mhynie@yorku.ca
Office Hours	W 11:30 -12:30 or by appt
T.A.	Tal Davidson
Email	tald12@yorku.ca
Office Hours	By appt

Course Prerequisite(s): Course prerequisites are strictly enforced

- HH/PSYC 1010 6.00 (Introduction to Psychology), with a minimum grade of C.
- HH/PSYC 2020 6.00 (Statistical Methods I and II) or substitute
- HH/PSYC 2030 3.00 (Introduction to Research Methods) or substitutes
- Students must be in an Honours program in Psychology and have completed at least 84 credits (excluding (EDUC) education courses)

Course Credit Exclusions

Please refer to [York Courses Website](#) for a listing of any course credit exclusions.

Course website: [eClass](#)

All course materials will be available on the course eClass site, unless otherwise indicated by the instructor. The site will be your central access point for course materials including academic papers, podcasts, on-line videos and other media sources.

Course Description

In this course, students will develop and practice critical thinking skills required to become responsible and analytical consumers of research in psychology. This course will include lectures, discussion, peer review sessions, and student presentations. This course will be offered entirely on-line for the full academic year, using synchronous (live and simultaneous) lectures and discussions in combination with some asynchronous (recorded and/or accessed at different times) activities.

Program Learning Outcomes

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

1. Demonstrate ability to think critically about applications of psychological findings reported in the media.

2. Demonstrate knowledge of variety of ways to express psychological findings in everyday life.
3. Critically identify myths or stereotypes in common discourse.
4. Recognize limits of conclusions based on inferential statistics.

Specific Learning Objectives

Demonstrate the ability to describe, understand, and think critically about research questions, results and inference, and how they are communicated in both scientific journals and in the media.

Demonstrate the ability to interpret, evaluate and integrate research from distinct (and sometimes conflicting) sources to arrive at an informed opinion.

Effectively communicate scientific research and informed conclusions on research in a range of communication media for a general public audience understanding level.

Demonstrate understanding of the strengths and limitations of different communication media and use this understanding to communicate science within them.

Demonstrate the ability to evaluate credibility of evidence using reason and logic.

Required Text

Chambers, C. (2017). *The seven deadly sins of psychology: A manifesto for reforming the culture of scientific practice*. Princeton: Princeton University Press.

Additional required and optional readings and materials are posted in eClass each week

Course Requirements and Assessment:

Assessment	Date of Evaluation	Weighting
Assessment 1: Where is the evidence?	September 28/October 2	10%
Assessment 2: Who is left out? (group assignment)	November 2	10%
Assessment 3: Statistics gone wrong	December 7	15%
Assessment 4: Qualitative bias	February 8	10%
Assessment 5: Tell me that in tweets	March 8	10%
Assessment 6: Describe the debate	April 5	25%
Group Discussion Facilitation	Date varies	5%
Group Participation (5% per term)	Throughout	10%
Class Participation	Throughout	5%
Total		100%

Description of Assignments

Assessment 1: Where is the evidence? (10 marks, due Sept 28/Oct 2)

When a new study comes out, it is often picked up by the media and then reported on in ways to make it more exciting and relevant to the audience. But how often do they get these claims

right? In this assignment, you are locating a bold new scientific finding from psychology, and then going to the original article and assessing whether the media is interpreting the findings correctly. What does the evidence actually say? Have the media accurately reported the findings, and are their conclusions about the meaning of the study justified? Why or why not? You will present the claim, the study, and your analysis of the accuracy of reporting in a brief powerpoint presentation in small groups (3 to 4 people per group). In order to fit you all in (and ensure we can see all of them), the presentations are divided over 2 classes.

Assessment 2: Who is left out? (10 marks—group assignment, due November 2)

In this assignment we tackle “WEIRD” science. There have been claims that psychology is now becoming more inclusive. Is that true? You will be divided into groups based on which area of psychology you want to focus. For this assignment, you will each find a recent paper published in one of the American Psychological Association’s (APA) journals and prepare a brief, informal, presentation to your group indicating what the study was focused on and its main findings and then detail who the sample was. What information is presented about the sample? What information is missing? As a group, discuss your papers and come up with a brief summary of what the “typical” sample is for research in your area, in the form of one or two powerpoint slides. How representative do samples seem to be in this area, given the studies your group members have reviewed?

Assessment 3: Statistics gone wrong (15 marks, due December 7)

Psychology has a history of questionable practices, particularly with respect to how we use statistics. In this assignment, we will be bad scientists... what happens when you go fishing for a significant result? Is it possible to get a significant effect, even when the finding you seek is actually impossible? You will be given a data set and asked to try to make the impossible possible, by manipulating the data in search of a significant finding...(don’t ever do this in real life!!)

Assessment 4: Qualitative bias (10 marks, due February 8)

The first term really focuses on questionable practices in quantitative research methods, but how do we assess the quality and rigour of qualitative data? In this assignment you will identify a qualitative study and describe how the authors ensure and report on the rigour of the research methods.

Assessment 5: Tell me that in tweets (10 marks, due March 8)

Increasingly, information is being communicated through social media. Twitter has become a useful source of scientific information, using short statements in series of connected tweets (threads). This is an excellent way of practicing clear and concise communication about research findings. Describe the main findings of a psychology study and explain why these

findings are important or relevant using a twitter thread. Use simple and clear language and keep it short! No more than 12 tweets in the thread....

Assessment 6: Describe the debate (due April 5, 25 marks)

There continue to be a number of issues in psychology about which researchers disagree, and studies are available that support both sides. Sometimes they argue about the presence or absence of a phenomenon, sometimes they argue about the direction of an effect or relationship. Select a debate and present the evidence for both sides using an engaging format intended for a non-psychology audience. It can be a podcast, game show, musical, graphic novel, interactive website....have fun! Describe the issue and why it is important. Then describe and assess the quality of 2 to 3 academic papers supporting each side of the debate. In the end, where does the evidence lie? Which side has more support and why?

Group Discussions:

There will be 6 formal group discussions in class, where you will be asked to get together to talk about the course readings. Participation in these discussions is about both showing us that you have done the readings, and discussing their content with your group. Each discussion will have 2 discussion questions to help you guide your conversation. These questions will be provided by the group facilitator(s). In preparation for this, you will submit a brief (100 word) response to each question that reflects on the question but is grounded in the readings. If you cannot participate that week for some reason, let your facilitators (and me) know, and make your contribution in writing to the discussion forum.

Group Discussion Facilitation:

Each of you will facilitate one discussion. There will be one to two facilitators per session. The facilitators will post two questions on the Sunday night before class, drawn from the readings of that week, and the week before. You can each post one question, or collaborate on the two questions. Select a question(s) that clearly draws from the readings and will motivate people to reflect. The facilitator(s) then facilitates the discussion. Afterwards you will quickly rate the participation of your group members (did they contribute and offer things you can actually write about in your summary?) and write a short summary of the discussion. What were the main issues on which people agreed and/or disagreed? Were interesting challenges raised to the readings or lecture materials?

Class Format and Attendance Policy

Attendance and participation are expected but you can request asynchronous participation if you need to miss a class. Please contact us about that. Participation is evaluated based on participation in group discussions as well as in class using ratings of contributions to group discussions and the eClass attendance function.

Grading as per Senate Policy

The grading scheme for the course conforms to the 9-point grading system used in undergraduate programs at York (e.g., A+ = 9, A = 8, B+ = 7, C+ = 5, etc.). Assignments and tests* will bear either a letter grade designation or a corresponding number grade (e.g. A+ = 90 to 100, A = 80 to 89, B+ = 75 to 79, etc.)

For a full description of York grading system see the York University Undergraduate Calendar – [Grading Scheme for 2022-23](#)

Late Assignments

For any late assignment, students must contact the instructor in advance. An extension is possible for assignments but must be negotiated with the instructor. If an extension is not requested then a late penalty of 5% per 24 hours will apply

Add/Drop Deadlines

For a list of all important dates please refer to: [Fall/Winter 2022-23 Important Dates](#)

	Fall (Term F)	Year (Term Y)	Winter (Term W)
Last date to add a course without permission of instructor (also see Financial Deadlines)	Sept. 20	Sept. 20	Jan. 22
Last date to add a course with permission of instructor (also see Financial Deadlines)	Oct. 4	Oct. 25	Feb. 6
Drop deadline: Last date to drop a course without receiving a grade (also see Financial Deadlines)	Nov. 11	Feb. 10	Mar. 17
Course Withdrawal Period (withdraw from a course and receive a grade of "W" on transcript – see note below)	Nov. 12 - Dec. 7	Feb. 11 - April 11	March 18 - April 11
Course Withdrawal Period (withdraw from a course and receive a grade of "W" on transcript – see note below)	Nov. 13 - Dec. 7	Feb. 12 - April 10	March 19 - April 10

Add and Drop Deadline Information

There are deadlines for adding and dropping courses, both academic and financial. Since, for the most part, the dates are **different**, be sure to read the information carefully so that you understand the differences between the sessional dates below and the [Refund Tables](#).

You are strongly advised to pay close attention to the "Last date to enrol without permission of course instructor" deadlines. These deadlines represent the last date students have unrestricted access to the registration and enrolment system.

After that date, you must contact the professor/department offering the course to arrange permission.

You can drop courses using the registration and enrolment system up until the last date to drop a course without receiving a grade (drop deadline).

You may [withdraw from a course](#) using the registration and enrolment system after the drop deadline until the last day of class for the term associated with the course. When you withdraw from a course, the course remains on your transcript without a grade and is notated as 'W'. The withdrawal will not affect your grade point average or count towards the credits required for your degree.

Electronic Device Policy

This course will be delivered in an online format and therefore electronic devices (e.g., tablets, laptops) are permitted during class time for course-related purposes.

Academic Integrity for Students

York University takes academic integrity very seriously; please familiarize yourself with [Information about the Senate Policy on Academic Honesty](#).

It is recommended that you review Academic Integrity by completing the [Academic Integrity Tutorial](#) and [Academic Honesty Quiz](#)

Academic Accommodation for Students with Disabilities

While all individuals are expected to satisfy the requirements of their program of study and to aspire to do so at a level of excellence, the university recognizes that persons with disabilities may require reasonable accommodation to enable them to do so. The university encourages students with disabilities to register with Student Accessibility Services (SAS) to discuss their accommodation needs as early as possible in the term to establish the recommended academic accommodations that will be communicated to Course Directors as necessary. Please let me know as early as possible in the term if you anticipate requiring academic accommodation so that we can discuss how to consider your accommodation needs within the context of this course.

<https://accessibility.students.yorku.ca/>

Excerpt from Senate Policy on Academic Accommodation for Students with Disabilities

1. Pursuant to its commitment to sustaining an inclusive, equitable community in which all members are treated with respect and dignity, and consistent with applicable accessibility legislation, York University shall make reasonable and appropriate accommodations in order to promote the ability of students with disabilities to fulfill the academic requirements of their programs. This policy aims to eliminate systemic barriers to participation in academic activities by students with disabilities.

All students are expected to satisfy the essential learning outcomes of courses. Accommodations shall be consistent with, support and preserve the academic integrity of the curriculum and the academic standards of courses and programs. For further information please refer to: [York University Academic Accommodation for Students with Disabilities Policy](#).

Course Materials Copyright Information

These course materials are designed for use as part of the PSYC4180 course at York University and are the property of the instructor unless otherwise stated. Third party copyrighted materials (such as book chapters, journal articles, music, videos, etc.) have either been licensed for use in this course or fall under an exception or limitation in Canadian Copyright law.

Copying this material for distribution (e.g. uploading material to a commercial third-party website) may lead to a violation of Copyright law. [Intellectual Property Rights Statement](#).

Course Schedule

The course schedule is provided on eClass