PSYC23: Developmental Psychobiology

SYLLABUS Fall 2023

Course Instructor David Haley (d.haley@utoronto.ca)

Class Meetings Fridays, 9:00–11:00 am (Room MW 170)

Delivery Modes In person

Office Hours (online) Thursdays, 1–2 pm

See Quercus course Home Page for Zoom link

Course format

Our class meetings will be used primarily to stimulate discussion and foster student presentation skills. Most of our weekly lecture content will be made available as pre-recorded clips and slides that you can watch prior to our class meetings.

Course accessibility

To maximize accessibility, I will livestream our in-class meetings over Zoom (https://utoronto.zoom.us/my/davidhaley). This will create a synchronous hybrid learning environment, and you may attend class in person or remotely. Regardless of which option you choose, we will communicate using audio, video, and chat along with polls and breakout rooms in Zoom. This means that whether you attend in person or remotely, you will need a device (smartphone, tablet, or computer) to participate in our class meetings. (If you face any barriers to bringing a device, please let me know and we will accommodate you.) I will also record the class meetings and upload the recordings to Quercus. (For information on AccessAbility Services, please see p. 10 below.)

Course description

This course examines developmental psychobiology across the lifespan, from infants and children to adults. We focus on the interplay of psychosocial and biological processes on attachment, stress, and parenting, with a focus on social adversities. Applied topics are discussed throughout the course (e.g., spanking, cry-it-out sleep training, racism in utero, child poverty, parent incarceration, stress in university, reparations for slavery, universal basic income), with an emphasis on how science can inform practices and policy decisions that have an impact on human development.

Learning objectives

Upon successful completion of this course, you should be able to:

- Understand:
 - o the development of dyadic regulation and attachment in infancy
 - o the biology of adversity and prosocial behavior across the lifespan

- the role of stress, epigenetics, and telomeres in mental health across the lifespan and from one generation to the next
- Relate and link the effects of:
 - o socialization and parenting on human development
 - o social practices and social policies on human development
- Articulate, evaluate, and propose:
 - novel research hypotheses
 - o science-based arguments, opinions, and practices

Teaching Team and Communication Policies

Who is my instructor?

David Haley, Associate Professor, Department of Psychology, UTSC I'm a developmental psychologist with research interests in stress, parenting, and child development, with a focus on social and cognitive neuroscience in children and in parents. I love this course in part because it addresses aspects of social development that are rooted in the latest science, with an eye to how society and individuals shape human development.

Who are my TAs?

Mikayla Samuel, PhD candidate, Department of Psychology

Mikayla's research interests include the study of perceptual and motor development across infancy and the influence of auditory input on aspects of locomotion such as walking cadence. She is interested in studying how infants navigate and perceive the spatial layouts of the world around them.

Where do I send emails to ask questions?

For all communications about the course, including inquiries addressed to the Instructor and TAs, please send a message to our class email address: PSYC23.fall23@gmail.com. All emails should include "PSYC23" in the subject line.

Email policy

Students are encouraged to email regarding questions about course content or to arrange virtual meetings. Please attend office hours for more complicated questions. Emails should originate from students' designated UToronto email accounts. We will endeavour to respond to emails within 48 hours, excluding weekends and holidays.

When are office hours?

I will hold office hours by over Zoom on Thursdays from 1 to 2 pm (see Quercus Home Page Virtual Office Hours for Zoom link). If you need to talk to a TA, please send your request by email, and they will schedule a Zoom call with you.

Course Prerequisite

Prerequisites

The course builds on material learned in PSYB20, which is the prerequisite for the course. Enrollment in this course is restricted to students in the Specialists and Major programs in Psychology and Mental Health Studies. Students in the Minor program in Psychology will be admitted if space permits.

Can I take this course without the prerequisite?

The Psychology department is strict about prerequisites. If you do not have the prerequisite course (PSYB20), you will be removed from the course several weeks after the semester begins—which is when the psychology office conducts course checks for prerequisites. Being removed from of the course could be a real problem, as it would likely be difficult for you to find a substitute course to enroll in several weeks into the semester. So please don't stay enrolled in this course if you know you don't have the prerequisite. Thank you!

Assignments and Grading

Pre-class discussion boards	10%
Project: Group presentation + facilitated discussion (10%), Op-ed article (10%)	20%
Term Tests: Test 1 (20%), Test 2 (20%)	40%
Final paper (20%) + 3-minute oral presentation (10%)	30%

Pre-class discussion boards (10%)

<u>Pre-class discussion boards</u> will help set the stage for the in-class discussions and will be due on Quercus *every Tuesday night* by 11:59 pm (i.e., several days before class). There will be 2 discussion boards for most weeks that are each worth up to 2 points and will be evaluated on a 3-point scale (0, 1, or 2). Each contribution must include a link to a supporting newspaper or research article. There is a 50-word maximum limit per contribution—not including the link to supporting evidence. There will be a total of 20 discussion boards. To receive credit for this component, you must complete 15 discussion boards out of 20 (i.e., 75%).

Project: Group presentation + facilitated discussion (10%) + Op-ed article (20%)

- Group presentation + facilitated discussion (10%): The group presentation and facilitated discussion consists of a short, small-group slide presentation to the class (8–10 minutes) followed by a structured, small-group-facilitated class discussion (12–15 minutes).
 - Each group's slide presentation should include background information and present 2-3 sources of evidence supporting at least two differing or opposing perspectives on an assigned topic.
 - The facilitated discussion should be structured: Structures you may choose to guide the class discussion can include question prompts, Zoom polls, and/or breakout groups with assigned topics/questions.
 - Students will sign up for groups and discussion topics on Quercus by the second week of the semester (the weekly discussion topics are listed in Lecture/Discussion Topics on Quercus)
 - Each group will be graded based on a detailed rubric that is available on Quercus.
 - Each discussion group will be asked to submit their presentation slides as a PDF on Quercus by 11:59 pm on the day of their presentation (i.e., after their presentation). I will make these PDFs available to all class members.
- <u>Op-ed article</u> (10%): The Op-ed article is a writing assignment related to the group presentation and discussion. Each member of the group will submit a 500-word opinion piece that summarizes and draws upon scientific evidence to argue for one of the two differing or opposing perspectives presented and discussed by their group in class. Information about this assignment is on Quercus under Assignments. Op-ed articles are due **1** week after your group presentation and discussion.

Term tests: Term Test 1 (20%) + **Term Test 2** (20%)

There will be <u>two term tests</u>. These will be open-book and based primarily on conceptual application of the ideas presented in class rather than on rote memorization.

- <u>Term Test 1 (20%):</u> This exam will be based on the lectures, assigned readings, and weekly discussions and will consist of true/false questions, multiple-choice questions, and short-answer questions. This test will cover materials from *weeks 1 to 5*.
- <u>Term Test 2 (20%):</u> This exam will be based on the lectures, assigned readings, and weekly discussions and will consist of true/false questions, multiple-choice questions, and short-answer questions. The exam will cover *weeks 1 to 11* with an emphasis on *weeks 7-11*. Check Ouercus for more details.

Final paper (20%) + 3-minute oral presentation (10%)

Instead of a final exam, you will have a <u>final paper</u> with a related <u>3-minute oral presentation</u> to help you explore and consolidate course-related material into a meaningful written narrative and to improve your scientific thinking, writing, and presentation skills. The final paper will be due during final exams (TBD).

The <u>final paper</u> consists of a research proposal abstract. This abstract (a short summary) should include the most essential elements of your proposal (background, hypothesis, methods, discussion) in no more than 500 words (not including references or title). Every word counts!

The <u>oral presentation</u> will be in 3-minute Thesis format, which is fun and challenging. The presentation will be on the topic or thesis of the final paper. See course schedule for timing of the presentations and Quercus for instructions.

Course Materials

<u>Quercus</u>: All of your course materials (lecture clips, pre-class activities, and assignments) are available on the course website. You can access the course website on Quercus (https://q.utoronto.ca) using your UTORID. The course website will be organized by modules. Your weekly lecture videos and slides will be in your weekly Lecture module. Your activities will be in your Activities module.

Required Readings/Viewings: One of the goals of this course is to give you a rich and diverse view of developmental psychobiology. This will enable you to become familiar with the work of some of the leading scientists in the field and with some major topics of study. You will dig deeper into the data than you might normally do in your other textbook courses. In addition, we want to explore real-world issues and discuss some of the social implications of the science we are studying. Accordingly, the readings are a mixture of science review articles, original research papers, and documentaries.

Lecture, Readings, and Test/Assignment Due Dates

Week	Dates	Lecture	Readings	Discussi on Topic #s	Tests & Assignment Due Dates	
1	Sep 8	Introduction				
2	Sep 15	Sleep	Sadeh et al (2009)	1 & 2	Group presentations begin (2 presentations each week)	
3	Sep 22	Early Regulatory Difficulties	Bilgin & Wolke (2020) Van den Boom (1995)	3 & 4	Group presentations (2)	
4	Sep 29	Attachment	Poehlmann et al (2010) Szenczy et al (2021)	5 & 6	Group presentations (2)	
5	Oct 6	Parenting	Rilling & Young (2014) Lavner et al (2012)	7 & 8	Test 1 during class time No group presentations	
6	Oct 13	No Class Reading Week Oct 7 - 13				
7	Oct 20	Sociality	Whedon et al (2018) Suzuki et al (2020)	9 & 10	Group presentations (2)	
8	Oct 27	Gene by Environment	Boyce & Kober, 2015	11 & 12	Group presentations (2)	
9	Nov 3	Biology of Adversity	Schonkoff et al (2021)	13 & 14	Group presentations (2)	
10	Nov 10	Biology of Social Inequality and Racism	Rentscher (2020) Sapolsky (2021)	15 & 16	Group presentations (2)	
11	Nov 17	Childhood Poverty and Racism	Evans & Kim (2013)	17 & 18	Test 2 during class time No group presentations	
12	Nov 24	Self-Control	Adler (2015)	19 & 20	3-min thesis presentations (22)	
13	Dec 1	No lecture			3-min thesis presentations (22)	

Readings

Week 1 Course Introduction – No reading

Week 2 Sleep

1. Sadeh, Tikotzky, & Scher (2010). Parenting and infant sleep. Sleep Medicine, 14, 89-96.

Week 3 Early Regulatory Difficulties

- 2. Bilgin & Wolke (2020) Infant crying problems and symptoms of sleeping problems predict attachment disorganization at 18 months. Attachment & Human Development, 22, 367-391.
- 3. van den Boom (1995). Do First-Year Intervention Effects Endure? Follow-Up during Toddlerhood of a Sample of Dutch Irritable Infants. Child Development, 66, 1798-1816.

Week 4 Attachment

- 4. Poehlmann, Dallaire, Loper, & Shear (2010). Children's contact with their incarcerated parents: research findings and recommendations. *The American psychologist*, 65(6), 575–598.
- 5. Szenczy, Bernard, Raby, Garnett, & Dozier (2021). Foster parent responsiveness and young children's diurnal cortisol production. Developmental Psychobiology, 63, 1626–1634.

Week 5 Parenting

- 6. Rilling & Young (2014). The biology of mammalian parenting and its effect on offspring social development. Science, 345, 771–776.
- 7. Lavner, Waterman, & Peplau. (2012). Can gay and lesbian parents promote healthy development in high-risk children adopted from foster care? American Journal of Orthopsychiatry, 82, 465-472

Week 6 No class (Reading Week)

Week 7 **Sociality**

8. Whedon, Perry, Calkins, & Bell (2018). Cardiac vagal regulation in infancy predicts executive function and social competence in preschool: Indirect effects through language. Developmental Psychobiology, 60, 595–607.

Week 8 Gene x Environment

9. Boyce & Kober (2015). Development and the epigenome: the 'synapse' of gene–environment interplay. Developmental Science, 18, 1–23

Week 9 Biology of Adversity

10. Schonkoff et al (2021). Early Childhood Adversity, Toxic Stress, and the Impacts of Racism on the Foundations of Health. Annual Review of Public Health.

Week 10 Biology of Social Inequality and Racism

- 11. Rentscher (2020). Psychosocial Stressors and Telomere Length: A Current Review of the Science. Annu. Rev. Public Health, 41, 223–45.
- 12. Sapolsky (2021). The health-wealth gap: The growing gulf between rich and poor inflicts biological damage on bodies and brains. Scientific American, 49-53.

Week 11 Childhood Poverty and Racism

13. Evans B, Kim P (2013) Childhood poverty, chronic stress, self-regulation, and coping. Child Dev Perspect 7(1):43–48.

Week 12 **Self-Control**

14. Adler, N. E. (2015). Disadvantage, self-control, and health. PNAS, 112 (33) 10078-10079.

Policies

Communication Expectations

If you have any questions about your participation (e.g., discussion board questions), lecture, assignments, or tests, please email us at PSYC23.winter23@gmail.com. We will endeavor to respond within 48 hours, not including weekends or holidays. Please don't expect replies less than 48 hours before a test or assignment is due.

Announcements, Changes or Clarifications

I will make all announcements in class. I will consult with students about any potential change or clarification that may be needed in the syllabus. In accordance with university policy, if there is any substantial change, we will vote on it. After making or adopting any minor or major changes/clarifications affecting the syllabus, I will upload a copy of the revised syllabus to our Quercus web site.

Late Work Policy

Late work is not accepted in PSYC23. Any work submitted after the due date and time will receive a score of 0%. For work missed due to extenuating circumstances, please see the *Psychology Department Missed Term Work Policy* below.

AccessAbility Services

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability or health consideration that may require accommodation, please feel free to approach the instructor and/or the AccessAbility Services Office (in SW-302) as soon as possible. You instructor will work with you and AccessAbility Services to ensure you can achieve your learning goals in this course. Enquiries are confidential. The UTSC AccessAbility Services staff members are available by appointment to assess specific needs, provide referrals, and arrange appropriate accommodations.

AccessAbility Services contact information:

Phone: (416) 287-7560

Email: ability@utsc.utoronto.ca

Academic Integrity

The University treats cases of cheating and plagiarism very seriously. The University of Toronto's Code of Behaviour on Academic Matters

(http://www.governingcouncil.utoronto.ca/policies/behaveac.htm) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences. Potential offences in papers and assignments include using someone else's ideas or words without appropriate acknowledgement, submitting your own work in more than one course without the permission of the instructor, making up sources or facts, obtaining or providing unauthorized assistance on any assignment.

On tests and exams, cheating includes using or possessing unauthorized aids, looking at someone else's answers during an exam or test, misrepresenting your identity, or falsifying or altering any documentation required by the University.

Equity, Diversity and Inclusion

The University of Toronto is committed to equity, human rights and respect for diversity. All members of the learning environment in this course should strive to create an atmosphere of mutual respect where all members of our community can express themselves, engage with each other, and respect one another's differences. U of T does not condone discrimination or harassment against any persons or communities.

The University of Toronto is a richly diverse community and as such is committed to providing an environment free of any form of harassment, misconduct, or discrimination. In this course, I seek to foster a civil, respectful, and open-minded climate in which we can all work together to develop a better understanding of key questions and debates through meaningful dialogue. As such, I expect all involved with this course to refrain from actions or behaviours that intimidate, humiliate, or demean persons or groups or that undermine their security or self-esteem based on traits related to race, religion, ancestry, place of origin, colour, ethnic origin, citizenship, creed, sex, sexual orientation, gender identity, gender expression, age, marital status, family status, disability, receipt of public assistance or record of offences.

University Land Acknowledgement

I wish to acknowledge this land on which the University of Toronto operates. For thousands of years, it has been the traditional land of the Huron-Wendat, the Seneca, and the Mississaugas of the Credit. Today, this meeting place is still the home to many Indigenous people from across Turtle Island and we are grateful to have the opportunity to work on this land.

Accommodations

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach me and/or the AccessAbility Services Office as soon as possible.

AccessAbility Services staff (located in Rm AA142, Arts and Administration Building) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations 416-287-7560 or email ability.utsc@utoronto.ca. The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.

Use of Generative Artificial Intelligence Tools

Students may use artificial intelligence tools, including generative AI, in this course as learning aids or to help produce assignments. However, students are ultimately accountable for the work they submit.

Students may not use artificial intelligence tools for taking tests, writing research papers, creating computer code, or completing major course assignments. However, these tools may be useful when gathering information from across sources and assimilating it for understanding.

The knowing use of generative artificial intelligence tools, including ChatGPT and other Al writing and coding assistants, for the completion of, or to support the completion of, an examination, term test, assignment, or any other form of academic assessment, may be considered an academic offense in this course.

Recording of Classroom Material by Students

Recording or photographing any aspect of a university course - lecture, tutorial, seminar, lab, studio, practice session, field trip etc. – without prior approval of all involved and with written approval from the instructor is not permitted.

DEPARTMENT OF PSYCHOLOGY POLICIES

Note: These policies are NOT built into the Syllabus Builder tool in CIS.

Masks in the Classroom (OPTIONAL)

While the mask mandate has been paused as of 1 July 2022, the use of medical masks continues to be strongly encouraged at U of T Scarborough in indoor settings where physical distancing is not possible. We ask everyone to respect each other's decisions, comfort levels, and health needs. Masks are available at all building entrances at U of T Scarborough and in all classrooms.

Missed Term Work Policy (OPTIONAL, IF YOU HAVE YOUR OWN ALTERNATE VERSION)

Using the Missed Term Work policy below is **optional**. You may prefer to develop your own system (ex. you could create your own online form instead of using our MTW form), but you must account for the following:

- If there are legitimate, documented reasons beyond a student's control for missed work, they should be accommodated **without academic penalty** (as per the Academic Handbook, 6.6)
- Students who miss a term test for an acceptable reason (e.g. illness or bereavement) **should be offered a make-up test**. For some courses it may be appropriate to allocate the value of the missed test to another test, or other piece(s) of term work, but this is **strongly discouraged** (as per the <u>Academic Handbook</u>, 7.3)
- For a **first absence** in a course, students may simply **declare their absence on ACORN**. They can declare absence only once per term, for a period of up to 7 days.
 ACORN absence declarations should be considered sufficient documentation for missed work.
- If a student is **away more than once** in the term, they cannot declare additional absences on ACORN. In these cases, you have the **option to request proof** of their second+ absence, for example:
 - o A University approved Verification of Illness (VOI) form
 - A death certificate, funeral announcement, or other supporting document for bereavement
 - A note from a university staff member (advisor, coach, residence staff, etc.)
 who can substantiate the student's claims, sent directly to the instructor by email

Department of Psychology Missed Term Work Policy

For missed term work (assignments and term tests) due to illness, emergency, or other mitigating circumstances, please follow the procedure outlined below.

Procedure:

- 1. Complete the Request for Missed Term Work Accommodations Form ("MTW Form").
- 2. Email **BOTH** your MTW Form and Supporting Documentation to <course email> according to the instructions specified below.

Supporting Documentation Requirements and Deadlines:

Reason for Missed Work	Documentation required for a first absence in the term	Documentation required for subsequent absences in the term	Deadline for submitting MTW form and supporting documentation
Illness or Injury	ACORN Absence Declaration	UofT Verification of Illness Form	within 2 business days of the missed work
Bereavement	ACORN Absence Declaration	A death certificate or funeral announcement	within 2 business days of the missed work
University-sponsored athletic or artistic obligation at the varsity/provincial/national level	ACORN Absence Declaration	A note from a university staff member (advisor, coach, residence staff, etc.) who can substantiate the obligation, sent directly to the course email	10 business days IN ADVANCE of the missed deadline
Disability-related reasons for students registered with AccessAbility Services	For missed TERM TESTS, - Contact your AccessAbility consultant and have them write to the course email detailing the accommodations needed. For missed ASSIGNMENTS, - If your desired accommodation is within the scope of your Accommodation Letter (e.g. your letter includes "extensions of up to 7 days" and you need 3 days), send your Accommodation Letter to the course email and specify how many days extension you are requesting If your desired accommodation is outside the scope of your Accommodation Letter (e.g. your letter includes "extensions of up to		PREFERABLY IN ADVANCE of the missed work, or as soon as possible

	7 days" but you need more time than that), contact your AccessAbility consultant and have them write to the course email detailing the accommodations needed.	
Academic Conflict (e.g. two midterms at the same time)	Screenshot from Quercus demonstrating the conflict.	10 business days IN ADVANCE of
Religious Conflict	None required	the missed work

Notes:

- The following reasons are not considered sufficient for missed term work: social activities, recreational travel, technological issues, avoidance of assessments or deadlines, work commitments
- Missed Final Exams are handled by the Registrar's Office and should be declared on eService.
- For ACORN absence declarations, the date you declare the absence is required to fall within the seven-day declaration period (i.e.) the absence cannot be submitted proactively or retroactively.
- Instructors cannot accept term work any later than five business days after the last day of class. Beyond this date, accommodations are only possible via the Registrar's Office petition process.
- If you are unable to submit your request within the specified number of business days, you must still email your instructor within that window to explain the nature of the delay. Exceptions to the deadlines are made only under exceptional circumstances.
- Multiple assignments due on the same day are <u>not</u> considered academic conflicts. Students are expected to manage their time effectively to meet assignment deadlines.
- Back-to-back tests/quizzes are <u>not</u> considered academic conflicts. Only overlapping activities are conflicts.
- Students are responsible for keeping their course timetables conflict-free. Students who
 register in two courses with overlapping lecture/tutorial/lab schedules will not be
 accommodated.

Next Steps:

After submitting your documentation, you will receive a response from your instructor or TA. The course instructor reserves the right to decide what accommodations will be made. Failure to adhere to any aspect of this policy may result in a denial of your request. **You are responsible for checking your official U of T email and Quercus course announcements daily**, as accommodations may be time-critical.

For missed assignments, **do not wait for the instructor's response to resume work on your assignment.** Extensions may be as short as one business day, depending on the nature of the illness/emergency. Complete your assignment as soon as you're able, and email it to your instructor.

If an accommodation is granted but a continued illness/emergency prevents you from meeting its requirements, you must <u>repeat</u> the missed term work procedure to request additional accommodations. **Please make it clear in your subject line that you are requesting a second accommodation.** Examples: If you were granted an extension for a paper but are still unable to meet the new deadline, or if you miss a <u>make-up</u> term test, you must submit *another* MTW form and supply documentation according to the "subsequent absences" column in the chart above. *Note: In the case of a missed make-up test, an opportunity to write a second make-up test may not necessarily be provided.