Psychology
UNIVERSITY OF TORONTO

PSY312H: Cognitive Development

Winter 2023 (January 9 – April 6)

Location: SS1088		**Time:** M 6pm–9pm
Course Instructor: Rebekah Gelpí	**Office Hours:** During weekly discussion	**Email:** rebekah.gelpi@mail.utoronto.ca
Teaching assistant: Nichole Bouffard	**Office Hours:** TBA	**Email:** nichole.bouffard@mail.utoronto.ca

Practical Matters

Course Materials: There is no textbook for the course. Weekly reading materials will be provided on Quercus.

Prerequisites: The following courses are required to register:

- One of PSY201H1/ ECO220Y1/ EEB225H1/ GGR270H1/ POL222H1/ SOC202H1/ STA220H1/ STA238H1/ STA248H1/ STA288H1/ PSY201H5/ STA215H5/ STA220H5/ PSYB07H3/ STAB22H3/ STAB23H3/ STAB57H3
- One of PSY210H1/ PSY210H5/ PSYB20H3
- One of PSY270H1/ PSY270H5/ PSYB57H3/ COG250Y1

It is your responsibility to ensure that you have met all prerequisites listed in the Psychology section of the A&S Calendar for this course. If you lack any prerequisites, you will be removed from the course. No waivers will be granted.

Course communication:

- **General inquiries related to the course content, policies, or assessments** should first be posted on the Quercus discussion board. Before you post, make sure that your question has not been answered by existing discussion posts or announcements. The TAs and instructor will monitor the board, but feel free to answer and support your peers as well if you know the answer to a question.
- **Office Hours**: The last ~30 minutes of class every week will be devoted to office hours. This is a great opportunity to ask questions about course content. The TA's office hours will be focused on helping you prepare for assignments and will be a great place to ask specific questions about your assignments. TA hours will be announced in class and on Quercus at least one week in advance.
- **Scheduling appointments for exam viewing or additional content review** should be emailed directly to the TA.
- **Personal questions related to illness, accessibility, accommodations, or course concerns** should be emailed to the instructor at rebekah.gelpi@mail.utoronto.ca.
- **All emails must include the term 'PSY312' in the subject line** as well as a description of the topic of the email. We will try to respond to your email within 2 business days during normal working hours.

Course Description and Goals

Welcome to PSY312H: **Cognitive Development**! This course is designed to give you an overview of what we know about the development of knowledge in important and fundamental cognitive domains like object perception, number, language, theory of mind, and other social domains. Using classic and contemporary experimental findings, we will explore major theories of cognitive development, and how they address age-old debates about the nature of human knowledge.

The primary objective of this course is to foster critical thinking about the topic of cognitive development, and to give you a deeper understanding of the field. We will do so by discussing some of the major influential theories in cognitive development, and we will attempt to evaluate those theories using data from developmental psychology. You will be pushed to think critically about methods, results, conclusions, and theories in the field, and you should expect to gain an understanding of why and how we conduct this research.

By successfully completing this course, you will be able to…

Goal One: Understand different theories of cognitive development

- Describe and classify them in terms of their shared and distinct features and predictions
- Relate and interpret the results of experiments in terms of theories
- Evaluate the evidence for and against major theories

Goal Two: Understand the common methods and designs from this research area

- Evaluate the evidence provided by these methods
- Discover open questions in the field
- Apply your understanding of the methods to propose new experimental designs to contribute to the field's existing knowledge.

Goal Three: Employ your knowledge of children's cognitive capacities in the future

- Practice writing about cognitive development in order to communicate with both a scientific and public audience
- Understand the implications of what we know in the context of future coursework, research, or applied work

Course Outline/Schedule		
Week	**Topic**	**Assignment**
January 9 (Week 1)	Welcome to the course Theories: Piaget	Gallotti pp. 18–45 **Complete entry survey**
January 16 (Week 2)	Theories: Post-Piaget	Newcombe (2013) Spelke & Kinzler (2007); Gopnik & Wellman (2012) **Discussion Board Q&A #1**
January 23 (Week 3)	Perception and Object Knowledge	Flavell pp. 29–62 Bremner et al. (2015) **Discussion Board Q&A #2**
January 30 (Week 4)	Statistical Learning and Language Acquisition	Saffran et al. (1996) Werker & Yeung (2005) **Discussion Board Q&A #3**
February 6 (Week 5)	Categories and Conceptual Development	Gelman (2009) Sloutsky & Fisher (2011) Gelman & Roberts (2017) **Discussion Board Q&A #4**
February 13 (Week 6)	***Term Test (in class)***	
February 20 (Week 7)	***No classes – Reading week***	
February 27 (Week 8)	Causal Reasoning	Muentener & Bonawitz (2018) Bonawitz et al. (2019) **Topic Proposal Due Feb. 25** **Peer Feedback Due Feb. 27**
March 6 (Week 9)	Teaching and Social Learning **Guest Lecture**	Csibra & Gergely (2009) TBA (reading on active learning) **Discussion Board Q&A #5**
March 13 (Week 10)	Social Cognition and Theory of Mind	Sommerville (in press) Poulin-Dubois & Yott, 2018 **Discussion Board Q&A #6**
March 20 (Week 11)	Memory	Goswami pp. 251–269 **Paper Rough Draft Due**
March 27 (Week 12)	Cognitive Control and Executive Function	Goswami pp. 295–317 **Peer Feedback Due** **Discussion Board Q&A #7**
April 3 (Week 13)	Catch-up/Open Science and Contemporary Controversies	Kominsky et al. (2022) ManyBabies (2020) **Discussion Board Q&A #8**
April 10 (*Finals*)	***Final Papers due April 10 at 11:59pm*** ***Final Exam (date TBA)***	

Assignments and Marking Scheme

Your grade in this class will be composed of four major components:

- **Discussion Board Q&A (10%)**
- **Term Test (25%) and Final Exam (25%)**
- **Paper Proposal, Rough Draft, and Peer Feedback (10%)**
- **Original Research Project Paper (30%)**

Discussion Board Questions and Answers (10%)

Most weeks, you will be assigned to write a short (~100-200 words) response to at least one of the week's readings on a dedicated Quercus discussion board. The response should highlight a particular element of the readings that you found interesting, confusing, or even something you disagreed with, and include a question or problem that you pose to the rest of the class. A few examples of questions to pose:

- Pointing out a contradiction between a theory and experimental results
- Asking for clarification about an experiment, theory, or capacity
- Questioning how a finding would be explained by a different theory

In addition, you will be asked to respond to another student's question, giving your thoughts about an answer to the question or what kind of information we might need to answer the question. Don't worry about getting it exactly right—this assignment is just intended to get you to think about the readings in a few different ways. Questions are due by 11:59pm on the Sunday before class, and responses no later than 4pm the day of class. Each segment is worth 50% of a week's grade, and will be graded as credit/no credit. Late responses will not be accepted, but your lowest score will be dropped, so you can skip one week of responses without penalty.

Term Test (25%) and Final Exam (25%)

There is one term test and one final exam. The term test (*25%*) will cover material from Weeks 1–5, while the final exam (*25%*) will cover material from Weeks 8–13. The final exam is not designed to be cumulative, but because many findings in cognitive development build upon one another, remembering theories and concepts from the first half of the course will help you on the final exam!

Both the test and the exam will contain multiple choice questions, short answer questions, and a longer essay. A week before both the term test and the final exam, I will publish a study guide containing possible essay questions. Each will always include one of the essay questions from the study guide.

Original Research Project Paper (40%)

The goal of this paper will be to incorporate theory and empirical data by proposing your own developmental experiment. You will find an empirical article published between 2020 and 2023 (in press is OK) on a topic in cognitive development and propose your own study to further the research endeavor.

Assignments and Marking Scheme, cont.

Topic Proposal and Discussion (5%)

You will submit a 1-page description of your proposed topic and study, due **February 27th**. You may propose an experiment on any topic in cognitive development that interests you and is covered in the course (if you would like to propose a topic in cognitive development not covered in the course, please speak with me or the TA first). During class, you will discuss your project idea along with other students in class. Your description should be sufficiently developed that (1) you are comfortable presenting it and having it discussed by your peers, and (2) it forms a useful basis for developing an experiment. Your topic paper must include a citation for the empirical article your proposed experiment will build on.

You will have a short workshopping discussion of your proposals in class, and each student will be asked to review and offer feedback on topic proposals written by ~2 other students. This will serve two goals: (1) provide direct feedback to the proposal writer on the strengths and areas of improvement in their proposal, (2) provide reviewers with insight into how to critically evaluate research proposals, which they can utilize when writing and revising their own final paper.

Rough Draft and Peer Assessment (5%)

You will submit a complete draft of your paper on **March 27th**, in order to participate in a peer assessment exercise, allowing you to receive formative feedback from your workshop group. We will then discuss drafts of your paper with your workshop group in-class.

Final Paper (30%)

1. An abstract. This should be similar to the abstract of an empirical article, and does not count towards your page limit. The abstract should be 250 words or less.
2. A 3-4 page literature review of your topic, summarizing the experiments and arguments made in your chosen article as well as other relevant articles, and ending with the specific question you'd like to address and an explanation of its connection to the literature. The format should be APA style and comparable to the Introduction/Background of a journal article.
3. A 2-3 page description of your proposed experiment. The experiment should specify the population to be tested, the materials and procedure you will use, and the conditions you hope to test. The format should be comparable to the Methods/Procedures section of a journal article.
4. A 2-3 page discussion section. This section should discuss the conclusions you would draw if your hypothesized results were confirmed. It should also discuss alternative results and conclusions you might draw from those. Finally, it should anticipate possible objections to your approach and suggest areas for further study. The format and tone should be comparable to the Discussion and General Discussion sections of a journal article.
5. A reference section (APA style; not counted in 10-page limit).

Please keep this between 8-10 pages (Times, 12-font, double-spaced, 1 inch margins). The final paper will be due **April 10th** (the first day of the exam period).

Course Policies

Cell phones and laptop usage
Technology can support student learning, but it can also become a distraction. Research indicates that multi-tasking (texting, surfing the Internet, using social networks) during class time can have a negative impact on learning (Clapp, Rubens, Sabharwal & Gazzaley, 2011; Ellis, Daniels, Jauregui, 2010; Hembrooke & Gay, 2003). Out of respect for your fellow learners in this class, please refrain from using laptops or mobile phones for entertainment during class and do not display any material on a laptop which may be distracting or offensive to your fellow students. Laptops should be used only for legitimate classroom purposes, such as taking notes, downloading course information from Quercus, or working on an assigned in-class exercise.

Use of course material
Students are free to use all lecture video, slides, and other materials for their own use. Students are, however, **not** permitted to share lecture slides or recordings with others not enrolled in this course. **Only the instructor** has permission to record and post lectures. Uploading course materials to an external website or shared server is expressly prohibited. Lectures are the intellectual property of the instructor, and the slides and recordings should be respected thus. Posting them to third-party websites without permission is a violation of intellectual property and of student privacy rights. If you would like to make your own recordings of class, please speak to me in person first.

Regrading Requests
The TA and I work hard to grade assignments fairly. If you believe an assignment has been graded incorrectly or unfairly, you may submit an appeal a **minimum** of 24 hours and a **maximum** of 2 weeks after the assignment has been returned. Please write a brief cover letter indicating your concern and deliver it to the instructor by email along with a copy of the original assignment. Please note that regraded assignments will be regraded in their entirety, so you may receive a higher mark, lower mark, or the same mark as before.

Academic Integrity and Plagiarism
The University of Toronto expects all of its students, faculty, and staff to abide by the Code of Behaviour on Academic Matters (found here). For students, this means ensuring that the work you submit represents your honest efforts and cites source material that you draw from appropriately. Academic misconduct will not be tolerated in any form. Academic misconduct includes, but is not limited to:

- Submitting the work of another (whether in part or in whole) as your own. This includes putting your name on group work that you did not contribute to, as well as using someone else's writing without providing quotation or citation of the material.
- Possessing prohibited materials while writing tests and exams.
- Providing or receiving assistance from another student unless explicitly permitted to do so by the instructor. In this class, this means that unless explicitly stated, all homework, problem sets, and writing submitted for a grade must be done independently. You are, however, encouraged to study and practice with peers.

If you are unclear on whether a particular action constitutes an academic offence, **please see me first**. Don't risk your grade—ignorance of the policy is not a defence for violating it!

Course Policies, cont.

Writing and English Language Help

Part of this course involves being able to communicate and write clearly and effectively. The University of Toronto has several resources available for students who wish to improve their skills:

- English Language Learners (ELL) has a number of programs and workshops aimed at students who wish to improve their reading, listening, speaking and writing skills in English. This includes a short mini-course in March on professional writing. If you are interested in this program, visit https://www.artsci.utoronto.ca/current/academic-advising-and-support/english-language-learning for more information.
- Each college and campus has a Writing Centre that offers workshops and programs as well as **one-on-one counselling** to help you improve your writing and develop your skills through **personalized feedback**. If you are interested in taking advantage of this resource, I recommend you schedule appointments sooner rather than later, as appointment slots fill up very quickly. Learn more at https://writing.utoronto.ca/writing-centres/.

Make-Up Exams and Extensions

If you miss the term test or require a short extension, you must submit documentation that demonstrates your inability to complete that assessment (i.e., the ACORN illness self-declaration tool or an email from your college registrar or accessibility counselor). Documentation must be submitted to me via email within 7 calendar days of the missed test. If you do not provide appropriate documentation, you will receive a 0 for the missed test.

As a rule, makeup tests will not be issued. If you miss the term test, your remaining term test will be reweighted to make up the missing chunk of your grade at 45% of your total grade, with an additional 5% allocated to the final paper. If you miss the final exam, you will need to contact your College Registrar to file a petition for late term work (https://www.artsci.utoronto.ca/current/faculty-registrar/petitions) or work out an alternative plan.

Because there will be in-class peer feedback sessions related to the original research project assignment, if you have an extension for work related to the final paper approved, your grade for the paper will be reweighted accordingly, with points for the peer feedback component assigned to other components of your grade.

Ongoing Learning Disability or Accommodation Requirement

Students with diverse learning styles and needs are welcome in this course. If you have an ongoing disability issue or accommodation need, you should register with Accessibility Services (AS) (https://accessibility.utoronto.ca) at the beginning of the academic year. Without registration, you will not be able to verify your situation with your instructors, and instructors will not be advised about your accommodation needs. AS will then assess your medical situation, develop an accommodation plan with you, and support you in requesting accommodation for your course work. Remember that the process of accommodation is private: AS will not share details of your condition with any instructor, and your instructors will not reveal that you are registered with AS.

Course Policies, cont.

COVID-19 Policies
For many reasons, people can be especially vulnerable to COVID-19, flu, and other diseases. This could be true of you or a close family member. For this reason, I will be wearing a mask throughout the course, and I request and strongly recommend that you do the same. University policies strongly recommend that you wear a mask, and you are required to wear a mask if you are displaying symptoms or have been recently exposed to someone who has tested positive.

Religious Observance Accommodations
As a student at the University of Toronto, you are part of a diverse community that welcomes and includes students and faculty from a wide range of backgrounds, cultural traditions, and spiritual beliefs. For my part, I will make every reasonable effort to avoid scheduling tests, examinations, or other compulsory activities on religious holy days not captured by statutory holidays. Further to University Policy, if you anticipate missing a major course assessment due to a religious observance, please let me know as early in the course as possible, and with sufficient notice (at least two to three weeks), so that we can work together to make alternate arrangements.

Personal Accommodations
Sometimes issues can be more complex than the situations above lay out, e.g. long-term illness, family emergencies, and other unforeseen situations. I want to support you and see you succeed, so if something of this nature occurs and interferes with your ability to complete the course content, please reach out to me via email and I will do what I can to try to help you obtain accommodations when they are reasonable and feasible. In this situation, I will also ask you to speak to your College Registrar, as they are able to support you in requesting extensions or other accommodations and put you in touch with resources on campus that will be able to help in your situation.