



## Cognitive Development

PSY 312S • Summer 2023 • SS 1088 M/W • 2-5pm

This course will provide a foundational understanding of key issues in cognitive development, including language development, statistical and causal learning, social cognition, categories and concepts, and memory and executive function. In this class, students will have opportunities to learn from lectures, but also to read and discuss both classical and recent empirical and theoretical work on these topics. The course covers infancy through the early school years. Major theories of cognitive development will be explored. Emphasis is placed on thinking critically about experimental findings, generalizability, and on how empirical findings and theories address centuries-old debates surrounding the origin and nature of human knowledge.



### **Instructor**

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### **Teaching Assistant**

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## Admin

### 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.

### Lecture Videos and Slides:

I will post my lecture video, and a pdf of my lecture slides on Quercus. In most cases videos and slides will be posted before lecture. In addition, my lecture slides may be missing text or missing key graphs, because research has found that this facilitates critical thinking. I will expect you to understand material beyond what is presented on the slides.

## Communication

### Content Questions:

The best place to ask questions about the assignments, course material, or developmental research in general is during class. Every class period will include plenty of time for questions both by raising your hand and submitting your questions anonymously. Asking your questions in class helps others with similar questions.

### Course Admin Questions:

Email the TA for administrative matters (e.g., missed deadlines, technical problems, remark requests). Please reach out to the TA first, and they will forward your question to me if they cannot answer it. ***Before you email, please check to see if your question is answered on this syllabus!***

### Announcements:

Important course updates will be sent out via the Announcements tool on Quercus. It is your responsibility to regularly check course announcements.

### Office Hours:

We will not hold regular office hours. Instead, reach out to us over email if you would like to schedule a meeting – we're happy to meet if you have a question that can't be covered during class time or over email!

## Readings

*There is no official textbook for this course.* I will assign a combination of empirical and theoretical articles that you can find on Quercus. In addition, in creating your final projects you will need to identify and read papers outside of the required readings to gain detailed knowledge of the topic of your choice and develop your ideas.

## Schedule

<i>Date</i>	<i>Topic &amp; Activities</i>	<i>Readings</i>	<i>Due</i>
July 5	<b><i>Introduction &amp; Piaget</i></b>	Gallotti pp. 18–45	Survey (July 7)
	Introduce constraints on generality statements		
July 10	<b><i>Theories Post-Piaget &amp; Methods</i></b>	Gauvain et al. 2011; Newcombe (2013); Westermann et al. (2007);	
	Group activity differentiating theories		
July 12	<b><i>Perception and Object Knowledge</i></b>	Flavell pp. 29–62; Stahl & Feigenson (2015)	
	Article discussion, complete empirical reading		
July 17	<b><i>Statistical Learning and Language Acquisition</i></b>	Aslin & Newport (2012); Gervain & Mehler (2010); Snedeker et al. (2007)	Project Proposal (July 17)
	Coworking time for feedback on proposals		
July 19	<b><i>Categories and Conceptual Development</i></b>	Dunham & Olson (2017); Gelman & Roberts (2017); Waxman et al. (2007)	
	Article discussion, complete all readings		
July 24	<b><i>Term Test 1</i></b>		
July 26	<b><i>Thinking about and Learning from Others</i></b>	Csibra & Gergely (2009); Jara-Ettinger et al. (2016); Sommerville (in press)	
	Coworking time for constraints lit review		
July 31	<b><i>Causal Reasoning &amp; Active Learning</i></b>	Muentener & Bonawitz (2017); Ronfard et al. (2021)	Constraints Statement (Aug 1)
	Group activity summarizing learning tradeoffs		
Aug 2	<b><i>Attention &amp; Memory</i></b>	TBD	
	Guest lecture from Bailey Agard		
Aug 9	<b><i>Self-Regulation &amp; Executive Function</i></b>	Barker et al. (2014); Goswami pp. 295-317; Lucca et al. (2020)	
	Article discussion, complete all readings		
Aug 14	<b><i>Class Decides!</i></b>	TBD – nothing that will be tested	
	Vote in Background Survey!		
Aug 15	<b><i>Term Test 2</i></b>		
			Final Project (Aug 22)

## Evaluation

There is no final exam for this class. Instead, we will have two term tests taken in class.

Assessment	Due Date	Grade %
Background Survey	July 7	2
Science Communication Project		
1. Project proposal	July 17	9
2. Constraints on generality statement	August 1	9
3. Final project & explanation	August 22	30
Term Test 1	July 24	25
Term Test 2	August 15	25

*Assignments are always due by 11:59PM ET on the date listed above. Except for term tests, assignments will be turned in virtually through Quercus, and exact deadlines and rubrics will be also listed for each assignment on Quercus.*

### **Class Participation:**

There are *no graded participation or attendance* components for this course. That said, to make attending lecture more rewarding than reviewing materials asynchronously, most weeks will include either a class activity or class discussion of assigned article(s). Each class, there will be ungraded pre- and post-tests from Mentimeter in the same format as term test questions, and forms to submit lingering content questions. Students will get points for completing these activities throughout the semester, and whoever has the most points can choose a celebratory baked good for the entire class for the last day.

### **Background Survey (2%):**

To be able to teach effectively, I will ask you to provide background information about your knowledge, experience, and interests in psychology. I will also ask for information about how I can modify the delivery of the course to better suit your needs and have a few components that students can vote on to decide course material.

### **Term Tests (25% each; 50% total):**

There will be two term tests. The first term test will focus on material covered in the first half of the semester, and the second term test will focus on material presented in the second half of the semester. The second term test 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 tests will contain multiple choice and short answer questions, as well as one short essay.

### **Science Communication Project (48% total):**

The project focuses on translating findings to non-scientific audiences, while the constraints on generality statement is a practice in communication to scientific audiences. The final project can take whatever format you think would be effective. For example, you could make brochures or blog posts, children's books, songs, cartoons, or board games (don't feel limited to these options!) Some of you may choose to create products for

children to enhance cognitive development based on the literature you have read (e.g., using studies of language development to inspire a song that scaffolds word learning, using knowledge of active learning and exploration to write a story that encourages active reflection to learn new concepts). Other assignments may be targeted towards caregivers, and explain complex findings using accessible formats (e.g., engaging articles, brochures).

Your assignment will not be graded based on artistry, rather your ability to create an *accessible, interesting, and well-thought-out* product that clearly connects to your topic. For example, students may create an interesting project through a unique format (e.g., an architectural design for a playground), but traditional formats (e.g., blog post) can be just as interesting! For example, you could write a creative and accessible blog post by integrating storytelling or intuitive analogies to help readers understand your concepts.

#### *Project Proposal (9%)*

You will submit a 2-page (double-spaced) project plan containing information about the aspect of children's cognitive development you have chosen to focus on, a brief description of the format your project will take, whether it is designed for children or adults, and justification for these choices based on empirical literature. You should include at least three peer-reviewed journal articles to inform your decisions (one of these articles can be drawn from class readings or lecture).

#### *Constraints on Generality Statement (9%)*

Most developmental psychological research has been done with upper-middle class samples from North America and Europe. Thus, the insights this work offers are limited. The goal of constraints on generality statements is to acknowledge these limitations and propose meaningful follow-ups to understand how variability or structural dynamics may influence studied phenomenon. You will choose one empirical article you're using to develop your project and write a detailed constraints statement for that article (~300 words). You should reference at least three themes and 7 peer-reviewed articles in your statement.

#### *Final Project & Explanation (30%)*

You will submit your final assignment with a short explanation (~1000 words) of how your project reflects concepts in cognitive development. Your explanation should include no fewer than 8 peer-reviewed journal articles that helped you design your materials. The goal of these assignments is not to be long or wordy, but to communicate understanding of topic in the most efficient terms possible.

## Land Acknowledgement

I wish to acknowledge the 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. We recognize a legacy of broken treaties and covenants and the need to strive to make right with all our relations. For a map of the treaties, territories, and languages represented on this land, you can visit: <https://native-land.ca/>

## Course Materials and Intellectual Property

Please keep in mind that all course materials (lecture slides, lecture recordings, assignments, etc.) are intellectual property. They are not to be posted anywhere (including social media, such as student created course Facebook pages) or sold to a third party. We work hard to create course content for you and sharing our intellectual property without permission is theft. Please don't do it.

## File Submissions

For ease of grading, accepted file types have been restricted to .PDF and Microsoft files (e.g., .PPTX, .DOCX). Standardizing the file format ensures that Ouriginal (see below) can proof your submissions and that there are no broken or unopenable files. The full suite of Microsoft products is free to you through UofT Libraries, please see the website to download: <https://onesearch.library.utoronto.ca/ic/microsoft-365-personal-workstations>

## Grading Policies

### Re-Grade Requests

The TA and I work very hard to grade assignments fairly and thoughtfully. If you believe an assignment has received a grade in error, you may submit an appeal. Write a brief cover letter explaining your concern and email it to the TA and the professor along with the original assignment. Please submit appeals within 14 days after the graded assignment is made available to students. Documents submitted for an appeal will be re-graded in their entirety. As a result, your grade may increase, but it may also decrease.

### Ouriginal (Plagiarism Detection Tool)

Normally, students will be required to submit their course essays to the University's plagiarism detection tool for a review of textual similarity and detection of possible plagiarism. In doing so, students allow their essays to be included as source documents in the tool's reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of this tool are described on the Centre for Teaching Support & Innovation website (<https://uoft.me/pdt-faq>).

### Late and Missed Assignments

Without contacting me to arrange an extension, late assignments will have 5% deducted from the final score (per day). **However, I want to work with you as much as possible and I do not like docking points for lateness because I strongly believe your grade should reflect the *quality* of your work, so *please consult me immediately* if you need an extension or think you might need an extension.** If there is a legitimate reason you can't meet a deadline and submitting late won't adversely affect class time or your ability to complete the course, I always approve extensions. Your reasons are legitimate even if they are personal and non-medical.



The sooner you let me know, the better the outcome will probably be, but *please* email me even if it is a few hours before the assignment is due! Don't be shy or question whether your reason is legitimate, please get in touch with me as soon as you are worried, and we will figure it out together!

### **Specific Medical and Personal Circumstances**

Students who are absent from academic participation for any reason (e.g., COVID, cold, flu and other illness or injury, family situation) and who require consideration for missed academic work should report their absence through the online absence declaration. The declaration is available on [ACORN](#) under the Profile and Settings menu. Students should also email me and the TA right away.

If an absence extends beyond 7 consecutive days, or if you have a non-medical personal situation preventing you from completing your academic work, you should connect with your College Registrar. They can provide advice and assistance reaching out to instructors on your behalf. If you get a concussion, break your hand, or suffer some other acute injury, you should register with Accessibility Services as soon as possible.

### **Religious & Cultural Accommodations**

As a student at the University of Toronto, you are part of a diverse community that welcomes and includes students and faculty with a wide range of cultural and religious traditions. 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 being absent from class or missing a major course activity (like a test or in-class assignment) 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. I'll ask for this information proactively in the "Individual Background" (A1) survey. In such circumstances, we will evaluate whether offering an extension, assigning a makeup assignment, or reweighting remaining assignments is the most appropriate path.

## **Other Resources**

### **Feedback Form**

We want the course to work for you as much as possible! There will be some things we can't change, but there will be other things we can change (e.g., interactive activities, the timing of class breaks, language used in the course). If there's something we can do to make the course more inclusive, you can leave an *anonymous* comment here and I will check the form before each class meeting: <https://forms.gle/9z4wcSsEPYd8QnNn8>

### **Accessibility Needs**

Students with diverse learning styles and needs are welcome in this course. If you have an acute or ongoing disability issue or accommodation need, you should register with Accessibility Services (AS) at the beginning of the academic year by visiting <http://www.studentlife.utoronto.ca/as/new-registration>. 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 assess your 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 needs or condition with any instructor, and your instructors will not reveal that you are registered with AS.

If you would like to request informal accommodations outside of those covered by accessibility services (e.g., class policies about break timing, behaviors that are overstimulating to you), you can privately let me know about this in the "Individual Background" (A1) survey or you use the anonymous feedback form at any time.

### **Privacy**

Personal information is collected pursuant to section 2(14) of the University of Toronto Act, 1971 and at all times it will be protected in accordance with the Freedom of Information and Protection of Privacy Act. For more information, please refer to <http://www.utoronto.ca/privacy> Please note that I will record my lectures, so some of your questions/answers may be captured but not your face. I will edit recordings before posting so that class activities are not included, only my lectures. These recordings will be for the exclusive use of enrolled students, for their personal learning. For the privacy of your peers and respect for my intellectual property, lecture recordings are not to be shared in any way beyond enrolled students.

### **Writing**

As a student here at the University of Toronto, you are provided with several resources to help you achieve high-quality writing. For more information on campus writing centres and writing courses, please visit <http://www.writing.utoronto.ca/>

### **Academic Integrity and Plagiarism**

All students, faculty and staff are expected to follow the University's guidelines and policies on academic integrity. For students, this means following the standards of academic honesty when writing assignments, collaborating with fellow students, and writing tests and exams. Ensure that the work you submit for grading represents your own honest efforts. Plagiarism – representing someone else's work as your own or submitting work that you have previously submitted for marks in another class or program – is a serious offence that can result in sanctions. Speak to me or your TA for advice on anything that you find unclear. To learn more about how to cite and use source material appropriately and for other writing support, see the U of T writing support website at [www.writing.utoronto.ca/](http://www.writing.utoronto.ca/). Consult the Code of Behaviour on Academic Matters for a complete outline of the University's policy and expectations. For more information, please see <http://www.artsci.utoronto.ca/osai> and <http://academicintegrity.utoronto.ca/>

### **Other Resources**

Student Life Programs and Services (<http://www.studentlife.utoronto.ca/>)

Academic Success Services (<http://www.studentlife.utoronto.ca/asc>)

Counselling and Psychological Services (<http://www.studentlife.utoronto.ca/hwc>)

Support When You are Feeling Distressed (<https://studentlife.utoronto.ca/task/support-when-you-feel-distressed>)