

# Syllabus

## **PSYC22: Infancy** **Department of Psychology, University of Toronto** **Winter Term 2024**

*Prerequisite:* PSYB20, a PSYB-level methods course (PSYB01, PSYB04, or PSYB70) and a B-level stats course (PSYB07, STAB22, or STAB23)

*Exclusion:* PSY316H1, PSY316H5

Duration of classes: Jan 8<sup>th</sup> to April 8<sup>th</sup>

Reading week: February 17<sup>th</sup> to February 23<sup>rd</sup>

Location: MW170

### **Course Description**

Infants must learn to navigate their complex social worlds as their bodies and brains undergo incredible changes. This course explores physical and neural maturation, and the development of perception, cognition, language, and social-emotional understanding in infants prenatally until preschool.

### **Learning Objectives**

By the end of the term, you will be able to:

1. Explain how physical maturation, perception, cognition, language and social-emotional behavior changes from before birth to age four.
2. Understand the methodologies used in research with infants and very young children and how to apply these methods to new research ideas.
3. Examine how culture and context shape development, and how both biology and experience interact with and shape development.
4. Critically evaluate empirical research in developmental psychology.
5. Contribute to the development of a parent survey and perform simple analyses/visualizations with these data.
6. Communicate these findings effectively, integrating them into developmental psychology theories and existing research and considering future directions.
7. Connect concepts learned in class with experiences in everyday life.

## Our Instructional Team

### Instructor



**Dr. Laura Cirelli** (she/her)

Email: [laura.cirelli@utoronto.ca](mailto:laura.cirelli@utoronto.ca) (include PSYC22 in the subject line)

Office hours by appointment

I am an Assistant Professor, Research Stream in the Department of Psychology. I teach undergraduate courses in developmental psychology, and direct the TEMPO lab at UTSC. In the TEMPO Lab, we explore how babies and young children engage with music. I'm really interested in exploring how everyday musical experiences shape perception, emotional responses and social development.

### Teaching Assistants



**Nayani Ramakrishnan** (she/her)

Email: [nayani.ramakrishnan@mail.utoronto.ca](mailto:nayani.ramakrishnan@mail.utoronto.ca)

I am a final year PhD student in Experimental Psychology supervised by Dr. Suzanne Erb and Dr. Abby Goldstein. I also completed by undergrad at UTSC with a double major in Neuroscience and English. My research focuses on investigating the relationship between childhood adversity and substance use problems in emerging adulthood. Some of the factors I explore in my work include reward processes, impulsive behaviour, and emotion dysregulation.



**Luna Li** (she/her)

Email: [ruoyan.li@mail.utoronto.ca](mailto:ruoyan.li@mail.utoronto.ca)

I have recently completed my Master of Education (MEd) in Developmental Psychology and Education at OISE/UofT. While studying, I was part of the Psychology of Emerging Adulthood Research Lab (PEARL) focused on the perception of adulthood among emerging adults and their parents. This is my second time TAing this course, and I have also TAed PSYC28 Emotional Development before.

**Email Policy:** Please feel free to email the instructor or TAs whenever you have questions or concerns or to set up a virtual meeting. E-mail must originate from your designated UToronto e-mail account. We will try our best to respond to emails within 48 hours, excluding weekends/holidays.

**Please include “PSYC22” in the subject line of your email.**

**Q and A sessions:** We will schedule drop in Q and A/Term Test review sessions with Dr. Cirelli and the TAs throughout the term (especially right before midterms). Pay attention to Quercus for scheduling.

## Course Materials and Lecture

### Assigned Readings

In lieu of a required textbook, this course will use assigned readings. There are usually 2 readings a week. Readings may detail empirical research or review the literature on a specific topic. These peer-reviewed readings are the way that infancy researchers communicate with each other and stay up to date on the most current findings, but they may be difficult to get through if you aren't used to reading academic papers. That's ok! It is a skill that you build with practice. I recommend reading them through twice, and making a few point form notes about the purpose, hypotheses, methods, results and implications. Be sure to read the assigned readings before lecture each week so that we can discuss them in more depth. The readings will **NOT** be posted on Quercus. **You will need to use your U of T library access to find these papers.** You can search for the article through the library website (<https://onesearch.library.utoronto.ca/>) and use your UTORid for access. See the list of readings below.

### Quercus

All registered students for the course have access to Quercus. This will serve as the class website, where all lecture slides and course-related materials will be posted. This will also be the site where the assignments will be submitted, and marks will be made available. You are expected to check this website with regularity. **Important announcements will be made here.** Check that you have enabled Quercus to email you when announcements and updates are made. Use of the website's **discussion boards** is strongly encouraged for non-private inquiries (e.g., questions about course content and the running of this course, but *not* emails reporting illness or other private matters). Students are also encouraged to answer peer questions on the discussion board, which is a great learning opportunity for everyone.

### Lectures

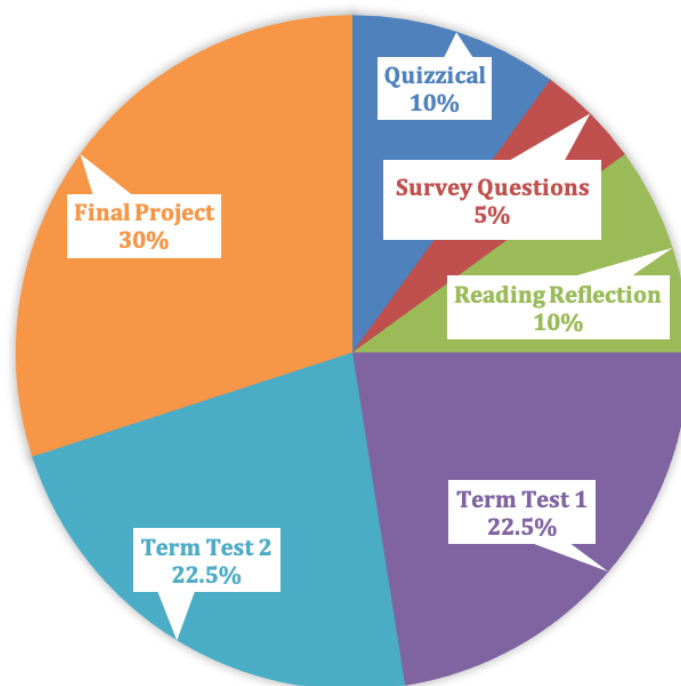
Lectures will be delivered in person. In person attendance is highly recommended. This course, including your participation, will be **recorded** on video and will be available to students in the course for viewing remotely and after each session.

Course videos and materials belong to your instructor, the University, and/or other sources depending on the specific facts of each situation, and are protected by

copyright. In this course, you are permitted to download session videos and materials for your own academic use, but you should not copy, share, or use them for any other purpose without the explicit permission of the instructor.

For questions about recording and use of videos in which you appear please contact your instructor.

## Course Assessments and Grading



### Quizzical: 10%

Quizzical is an educational software designed to help students engage more deeply with course materials. You can access it via Quercus. [You will be assigned to write two multiple-choice questions](#), which will be graded and count for 6% of your grade. You will also be expected to [complete a weekly quiz](#) within 14 days of lecture for lectures 1 to 8 for the remaining 4%. To get full participation credit, at least 10 questions must be completed, and the average grade on all questions must be **at least 70%**. More detailed instructions will be available on Quercus.

### Survey Questions: 5%

For the Final Project, we will be creating a Parent Questionnaire together and collect data online. For this assignment, you will develop a research question, outline your

hypotheses, and write 2 or 3 survey questions that you would like included on the questionnaire. You will use parent responses to these questions later in your Final Project. [This assignment will be due via Quercus](#) at 11:59pm on **Monday January 22nd**.

### **Reading Reflection: 10%**

Select one of the 18 assigned readings for the course. This brief reflection should be between 500 and 600 words. You will be expected to briefly summarize the reading, critique it, and explore questions for future directions. A full rubric and details will be available in Quercus. This assignment will be due via Quercus at 11:59pm on **Monday February 26th**.

### **Term Tests: 45% total (22.5% per test)**

There will be two non-cumulative term tests (22.5% each) that will be written in class during class time.

**Term Test 1:** This test will cover **lecture and readings** from **Lecture Topics 1 to 4**.

**Term Test 2:** This test will cover **lecture and readings** from **Lecture Topics 5 to 8**.

### **Final Project: 30%**

The final project will be your opportunity to apply what you have learned in this course to new data that we will have collected together as a class using our Parent Questionnaire. You have two options:

- Written Research Report for a scientific audience
- Science Podcast for a general audience (audio or audiovisual)

With both formats, you will be expected to introduce your research question, outline your hypotheses and methods of data collection, report the results, and discuss implications, real world applications, and future directions. You will also be expected to submit a written reference section and graphical representation of your results (we will discuss this in detail during Lecture 9). When choosing between the two formats, consider which exercise might be more useful in your future career path. Rubrics and more details about the assignment will be available on Quercus.

This project will be due on Quercus by 11:59pm on **Friday April 5th**.

### **Parent Questionnaire Timeline**

We will be building a survey together and asking Canadian parents of 0 to 4-year-old children to fill it out online. You will analyze and report on actual parent responses to a few questions in your Final Project. Here is an overview of the timeline:

**Early January**

Demographic questions that will be included on the survey will be posted on Quercus

**January 22nd**

Your **“Survey Questions” assignment is due**, where you will propose additional questions to be added to the survey. **Students should determine the format (written report or podcast) they plan to use for the final project.**

**Early February**

We will compile all the questions into one large questionnaire and submit for Ethical Approval. **Students should start working on their intro/method sections.**

**Late February/Early March**

We will collect data! We will advertise our questionnaire via the UTS Research Database and on social media. **Students should continue working on their intro/method, plan analyses, and draft discussions.**

**Late March**

I will distribute the raw data to the class and host a workshop on analyzing variables of interest. Plug this into your project and finalize everything.

**April 5th**

Final Project (written report or podcast) is due.

## Course Schedule

Please read each week’s readings before attending or viewing lectures.

Date	Lecture Week #	Topic	Readings
Jan 8	1	<a href="#">Prenatal Development</a>	Kisilevsky et al., 2003 Dudek et al., 2020*
Jan 15	2	<a href="#">Perceptual Narrowing</a>	Hwang et al., 2020 Maurer & Werker, 2014

Jan 22	3	<a href="#">Motor Development</a> <b>Survey Questions Assignment Due</b>	Han & Adolph, 2020 Hym et al., 2020
Jan 29	4	<a href="#">Cognitive Development</a>	Dunn & Bremner 2020 Stahl et al., 2015
Feb 5		<b>TERM TEST 1</b>	
Feb 12	5	<a href="#">Communication and Language</a>	Donnellan et al., 2020 Kandhadai et al., 2014*
Feb 19		<b>READING WEEK</b>	
Feb 26	6	<a href="#">Emotion and Temperament</a> <b>Reading Reflection Assignment Due</b>	Tang et al., 2020 Addabbo et al., 2020
Mar 4	7	<a href="#">Social Development</a>	Nagy et al., 2013 Lucca et al., 2018
Mar 11	8	<a href="#">Babies and Technology</a>	Przybylski & Weinstein, 2019 Myers et al., 2017



Mar 18		<b>TERM TEST 2</b> , in class	Covers lectures and readings 5 to 8
Mar 25	9	<a href="#">Final Project stats workshop</a>	Resources TBD
Apr 1	10	<a href="#">Current Events and Infancy</a>	TBD

**FINAL PROJECT DUE** on Quercus by 11:59pm on April 5th

Please note: The class schedule is subject to change due to unforeseen circumstances.

\* UTSC authors!

## Readings

### Lecture 1: Prenatal Development

Kisilevsky, B. S., Hains, S. M., Lee, K., Xie, X., Huang, H., Ye, H. H., ... & Wang, Z. (2003). Effects of experience on fetal voice recognition. *Psychological Science*, *14*(3), 220–224. <https://doi.org/10.1111/1467-9280.02435>.

Dudek, J., Colasante, T., Zuffianò, A., & Haley, D. W. (2020). Changes in cortical sensitivity to infant facial cues from pregnancy to motherhood predict mother–infant bonding. *Child Development*, *91*(1), e198-e217. <https://doi.org/10.1111/cdev.13182>

### Lecture 2: Perceptual Narrowing

Hwang, H. G., Debnath, R., Meyer, M., Salo, V. C., Fox, N. A., & Woodward, A. (2020). Neighborhood racial demographics predict infants' neural responses to people of different races. *Developmental Science*, Article e13070. <https://doi.org/10.1111/desc.13070>

Maurer, D., & Werker, J. F. (2014). Perceptual narrowing during infancy: A comparison of language and faces. *Developmental Psychobiology*, *56*(2), 154–178. <https://doi.org/10.1002/dev.21177>

### Lecture 3: Motor Development

Han, D., & Adolph, K. E. (2020). The impact of errors in infant development: Falling like a baby. *Developmental Science*, Article e13069. <https://doi.org/10.1111/desc.13069>

Hym, C., Forma, V., Anderson, D. I., Provasi, J., Granjon, L., Huet, V., ... & Barbu-Roth, M. (2020). Newborn crawling and rooting in response to maternal breast odor. *Developmental Science*, Article e13061. <https://doi.org/10.1111/desc.13061>

## Lecture 4: Cognitive Development

Dunn, K., & Bremner, J. G. (2020). Investigating the social environment of the A-not-B search task. *Developmental Science*, 23(3), Article e12921. <https://doi.org/10.1111/desc.12921>

Stahl, A. E., & Feigenson, L. (2015). Observing the unexpected enhances infants' learning and exploration. *Science*, 348(6230), 91-94. <https://doi.org/10.1126/science.aaa3799>

## Lecture 5: Communication and Language

Donnellan, E., Bannard, C., McGillion, M. L., Slocombe, K. E., & Matthews, D. (2020). Infants' intentionally communicative vocalizations elicit responses from caregivers and are the best predictors of the transition to language: A longitudinal investigation of infants' vocalizations, gestures and word production. *Developmental Science*, 23(1), Article e12843. <https://doi.org/10.1111/desc.12843>

Kandhadai, P., Danielson, D. K., & Werker, J. F. (2014). Culture as a binder for bilingual acquisition. *Trends in Neuroscience and Education*, 3(1), 24–27. <https://doi.org/10.1016/j.tine.2014.02.001>

## Lecture 6: Emotions and Temperament

Tang, A., Crawford, H., Morales, S., Degnan, K. A., Pine, D. S., & Fox, N. A. (2020). Infant behavioral inhibition predicts personality and social outcomes three decades later. *Proceedings of the National Academy of Sciences*, 117(18), 9800-9807. <https://doi.org/10.1073/pnas.1917376117>[Links to an external site.](#)

Wu, Y., Merrick, M., & Gweon, H. (in revision). Infants use others' surprise as vicarious prediction error. <https://doi.org/10.31234/osf.io/8whuv>[Links to an external site.](#)

## Lecture 7: Social and Moral Development

Nagy, E., Pilling, K., Orvos, H., & Molnar, P. (2013). Imitation of tongue protrusion in human neonates: Specificity of the response in a large sample. *Developmental Psychology*, 49(9), 1628–1638. <https://doi.org/10.1037/a0031127>

Lucca, K., Pospisil, J., & Sommerville, J. A. (2018). Fairness informs social decision making in infancy. *PLoS One*, *13*(2), e0192848. <https://doi.org/10.1371/journal.pone.0192848>

## Lecture 8: Babies and Technology

Przybylski, A. K., & Weinstein, N. (2019). Digital screen time limits and young children's psychological well-being: evidence from a population-based study. *Child Development*, *90*(1), e56-e65. <https://doi.org/10.1111/cdev.13007>

Myers, L. J., LeWitt, R. B., Gallo, R. E., & Maselli, N. M. (2017). Baby FaceTime: Can toddlers learn from online video chat?. *Developmental Science*, *20*(4), e12430. <https://doi.org/10.1111/desc.12430>

## Lecture 9: Final Project Workshop

Resources for workshop TBD – pay attention to class announcements

## Lecture 10: Current Events and Infancy

TBD

# Policies

## Land Acknowledgement

For over 15,000 years Toronto has been a gathering site for humans. This sacred land is the territory of the Huron-Wendat and Petun First Nations, the Seneca, and the Mississauga's of the Credit River. The territory was the subject of the Dish with One Spoon Wampum Belt Covenant, a coming together of the Iroquois and Ojibwe Confederacies and other allied nations to peaceably share and care for the resources around the Great Lakes. Today, Toronto is still a meeting place for Indigenous people from across Turtle Island, and immigrants, both new and old, from across the world. We are grateful to have the opportunity to work in the community, and on this territory. As we learn more about developmental psychology together on this gathering site, I encourage you to reflect on the responsibilities that we, as members of the UTSC community, have to treaties, Indigenous peoples, and to the land.

## Plagiarism Detection Tools

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 will 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 web site (<https://uoft.me/pdt-faq>)

## 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.

## Centre for Teaching and Learning

The Centre for Teaching and Learning (CTL) is available to support you in your writing, English language, math and stats, and professional development needs. It offers online tutoring and consultations and has a variety of helpful online resources. For more information, please visit CTL's Academic Learning Support site at <http://uoft.me/AcademicLearningSupport>.

## Late Work Policy

Late work is not accepted in PSYC22. 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 Missed Term Work Policy below.

## Accommodations

Students with disabilities: The University provides academic accommodations for students with disabilities in accordance with the terms of the Ontario Human Rights Code. This occurs through a collaborative process that acknowledges a collective obligation to develop an accessible learning environment that both meets the needs of students and preserves the essential academic requirements of the University's courses and programs.

Students with diverse learning styles and needs are welcome in this course. If you have a disability that may require accommodations, please feel free to approach me and/or the Accessibility Services office (416-287-7560 or email [ability@utsc.utoronto.ca](mailto:ability@utsc.utoronto.ca))

Religious observances: The University provides reasonable accommodation of the needs of students who observe religious holy days other than those already accommodated by ordinary scheduling and statutory holidays. Students have a

responsibility to alert members of the teaching staff in a timely fashion to upcoming religious observances and anticipated absences and instructors will make every reasonable effort to avoid scheduling tests, examinations or other compulsory activities at these times.

Please reach out to me as early as possible to communicate any anticipated absences related to religious observances, and to discuss any possible related implications for course work.

Family care responsibilities: The University of Toronto strives to provide a family-friendly environment. You may wish to inform me if you are a student with family responsibilities. If you are a student parent or have family responsibilities, you also may wish to visit the Family Care Office website at [familycare.utoronto.ca](http://familycare.utoronto.ca).

## Academic Integrity

Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Toronto is a strong signal of each student's individual academic achievement. As a result, the University treats cases of cheating and plagiarism very seriously. The [University of Toronto's Code of Behaviour on Academic Matters](#) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences. Potential offences include, but are not limited to:

### In papers and assignments:

- 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 in all relevant courses
- Making up sources or facts
- Obtaining or providing unauthorized assistance on any assignment

### On tests and exams:

- Using or possessing unauthorized aids
- Looking at someone else's answers during an exam or test
- Misrepresenting your identity

### In academic work:

- Falsifying institutional documents or grades
- Falsifying or altering any documentation required by the University, including (but not limited to) doctor's notes

A note on Generative Artificial Intelligence (i.e. ChatGPT): 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.

## Psychology Department Missed Term Work Policy

### 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.

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#### Procedure:

1. Complete the [Request for Missed Term Work Accommodations Form](#) ("MTW Form").
2. Email **BOTH** your MTW Form and Supporting Documentation to Dr. Cirelli according to the instructions specified below.

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#### Supporting Documentation Requirements and Deadlines:

Reason for Missed Work	Documentation required for a <i>first absence</i> in the term	Documentation required for <i>subsequent absences</i> in the term	Deadline for submitting MTW form and supporting documentation
Illness or Injury	<a href="#">ACORN</a> Absence Declaration	<a href="#">UofT Verification of Illness Form</a>	<b><u>within 2 business days</u></b> of the missed work
Bereavement	<a href="#">ACORN</a> Absence Declaration	A death certificate or funeral announcement	<b><u>within 2 business days</u></b> of the missed work
University-sponsored athletic or artistic obligation at the	<a href="#">ACORN</a> Absence Declaration	A note from a university staff member (advisor,	<b><u>10 business days IN ADVANCE</u></b> of

varsity/provincial/national level

coach, residence staff, etc.) who can substantiate the obligation, sent directly to the course email

the missed deadline

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.

**PREFERABLY IN ADVANCE of the missed work, or as soon as possible**

Disability-related reasons for students registered with AccessAbility Services

- If your desired accommodation is **outside the scope** of your Accommodation Letter (e.g. your letter includes “extensions of up to 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 the missed work

Religious Conflict

None required

**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 not considered academic conflicts. Students are expected to manage their time effectively to meet assignment deadlines.
- Back-to-back tests/quizzes are not 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 repeat 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 make-up 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.

## Grade Scale

Numerical Marks	Letter Grade	Grade Point Value
90 – 100%	A+	4.0
85 – 89%	A	4.0
80 – 84%	A-	3.7
77 – 79%	B+	3.3
73 – 76%	B	3.0
70 – 72%	B-	2.7
67 – 69%	C+	2.3
63 – 66%	C	2.0
60 – 62%	C-	1.7
57 – 59%	D+	1.3
53 – 56%	D	1.0
50 – 52%	D-	0.7
0 – 49%	F	0.0