

PSY384H5S – Speech Perception and Production

IN-PERSON

LEC 9101: Monday 3:00 pm – 5:00 pm ROOM: DH 2070
PRA 9101: Tuesday 3:00pm – 4:00pm ROOM: CC 2140
PRA 9102: Tuesday 4:00pm – 5:00pm ROOM: CC 2140

Course Delivery

Winter 2022 Return to Campus Update: In order to curb the spread of COVID-19 amid the emergence of the Omicron variant, most in-person learning has been **delayed until Jan 31, 2022**. Keep in mind this date is subject to change as per the Universities need to monitor any new developments and will be keeping with the latest evidence and public health guidelines.

Delivery Method until January 31, 2022

ONLINE VIA Zoom: Please see the Quercus website for the course to find out how to attend the Zoom lectures which will be offered on the days and times specified above. Course materials can be accessed on the course website (<https://q.utoronto.ca>)

- **Learn Anywhere Guide for Students**
<https://library.utm.utoronto.ca/students/quercus/learn-anywhere>
- **University of Toronto tech requirements for online learning**

Delivery Method after January 31, 2022

IN-PERSON (see above for locations)

Contact Information

Course Instructor

Dr. Thomas St. Pierre (Tom, he/him)
Office hours: Virtual via Zoom (view link on Quercus)
Wednesdays 10am to 11am
(or by appointment)
thomas.stpierre@utoronto.ca

Teaching Assistants:

Madeleine Yu - Grader
madeleine.yu@mail.utoronto.ca

Priscilla Fung – Practical TA
priscilla.fung@mail.utoronto.ca

Expect email responses within 48 (business day) hours.

Course Description

Imagine an animal species where one creature can generate thoughts in other creatures' minds simply by causing the air molecules around them to vibrate. Although this sounds exotic, it is what we as humans do every time we speak and listen. In this course, we will explore the production and perception of spoken language from an interdisciplinary

perspective. Sample topics will include perceptual and cognitive aspects of speech communication, speech signal acoustics, audio-visual speech integration, speech sound articulation, artificial speech recognition, multilingualism, and contextual influences on speech communication. Hands-on experience reading spectrograms and carrying out acoustic analyses will be provided

Prerequisite: PSY201H5 (or equivalent) and (PSY270H5 or PSY274H5 or PSY280H5 or PSY374H5 or LIN288H5)

Learning Outcomes

This course will focus on integrating content knowledge and skills. This means that in addition to learning the content of the course, we will also spend time developing writing, presentation, research and technical skills.

Content Outcomes

- Describing various aspects of speech perception and production (e.g., categorical perception, phonetic convergence, talker recognition, etc.)
- Reading spectrograms
- Transcribing words in IPA

Skills Outcomes

- Writing skills (summarizing, synthesizing, organization)
- Presentation skills
- Research skills
- Technical skills (Praat, OpenSesame, Excel)

Reading Material

There is no assigned textbook for the course. Readings will be posted on Quercus and/or be made available through the library.

Course Evaluation

Practical Assignments (20%): The practicals will focus on learning skills and applying knowledge. You will be assigned short, interesting exercises to complete throughout the semester, giving you hands-on research experience. These exercises will include (1) creating stimuli for experiments, (2) programming an experiment, (3) analyzing data, (4) writing effectively, etc. More details will be provided in class.

Article Discussion (15%): There is no textbook for the course. Instead, we will mostly be reading primary research articles about various topics related to speech perception and production. Students will work in groups of 3-4 to present on (and facilitate a discussion of) one of the assigned articles. This may include (1) preparing questions and activities that are likely to generate discussion, (2) bringing in additional materials that might be useful for adding context to the article, (3) making connections to other material discussed in the class, etc. Part of your grade for this assignment will include how much you participate in discussions when you are not presenting. More details will be provided in class.

Final Report (25%): Throughout the semester, you will conduct your own research project (with the help of fellow classmates). This will involve (1) researching your topic, (2) designing and programming an experiment, (3) collecting data, (4) analyzing the data, and (5) writing everything up in a final report. You will work in groups to complete steps 2-4, but each student will submit their own final report. More details will be provided in class.

Poster Presentation (15%): At the end of the semester, there will be a poster session in which each group (see Final Report above) presents a poster of their study (like in a conference). More details will be provided in class.

Final Term Test (25%)

Course Webpage

The website associated with this course is accessible via <http://q.utoronto.ca>

Note: You don't need to create a new login for Canvas; it already knows who you are. You just need your UTORid and password. This is the same login that gets you onto the wireless network with your laptop, and the same one that you use to check your email. If you're confused about your UTORid or don't remember your password, go to: <https://www.utorid.utoronto.ca/>

IMPORTANT COURSE POLICIES ****PLEASE READ****

Missed Test Special Consideration Request Process

Students who miss a test due to circumstances beyond their control (e.g. illness or an accident) can request that the Department grant them special consideration. Students must present their case to the Department (NOT the Instructor) by submitting a request via the online Special Consideration Request form at: <https://utmapp.utm.utoronto.ca/SpecialRequest>.

Important note: Once the test/exam is available online and you're unable to write or have an approved request to miss, **DO NOT** at any point attempt to access the test/exam. If at any time you access the test/exam, you will **NOT** be able to submit a special consideration and/or your request will be refused.

If your request is approved by the department, you will be provided with a makeup test. You will receive an email when a make-up date has been arranged. The department will try to give 2-3 days notice of make-up date; however, this is sometimes not possible. **Be prepared for the make-up.**

Extension of Time Special Consideration Request Process

Students who seek to be granted more time to complete their term work beyond the due date without penalty, owing to circumstances beyond their control (e.g., illness, or an accident), must do so by submitting a request **directly to the Instructor** for the period up to and including the last day of the term. The decision as to whether or not to apply a penalty for the specified period rests with the Instructor.

Students who seek to be granted more time to complete term work beyond the last day of the term must submit their request directly to the Department. This request covers the period following the last day of classes and ends the last day of the exam period. This is done by submitting a request via the online Special Consideration Request form at <https://utmapp.utm.utoronto.ca/SpecialRequest>. You are advised to seek advising by the departmental Undergraduate Counsellor prior to the deadline.

Supporting Documentation

The University is temporarily suspending the need for a doctor's note or medical certificate for any absence from academic participation. However, you are required to use the Absence Declaration tool on ACORN found in the Profile and Settings menu to formally declare an absence from academic participation. The tool is to be used if you require consideration for missed academic work based on the procedures specific to our campus/department.

Missed Final Exam or Extension of Time beyond exam period

Missed final exams or for extensions of time beyond the examination period you must submit a petition through the Office of the Registrar. <http://www.utm.utoronto.ca/registrar/current-students/petitions> and follow their procedures.

Penalties for Lateness

A penalty of 10% per calendar day (i.e., including week-ends and holidays, during which students are not able to submit term work) up to and including the last day of classes, will be applied by the Instructor. After the last day of classes, the

penalty of 10% per calendar day will be applied by the Undergraduate Counsellor on behalf of the Department. No penalty will be assigned if request for special consideration, described above, was successful.

Academic Guidelines

It is your responsibility to ensure that you have met all prerequisites listed in the UTM Calendar for this course. If you lack any prerequisites you WILL BE REMOVED from the course up until the last day to add a course. Further information about academic regulations, course withdrawal dates and credits can be found in the University of Toronto Mississauga Calendar at: <http://www.erin.utoronto.ca/regcal/>.

You are encouraged to read this material. If you run into trouble and need advice about studying, preparing for exams, note taking or time management, free workshops and advice are available from the Robert Gillespie Academic Skills Centre at 905-828-5406.

UTM Accessibility Services

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 requiring academic accommodations for learning, physical, sensory, or mental health disabilities or medical conditions should contact the Accessibility Office (2037B Davis Building), 905-828-3847. <http://www.utm.utoronto.ca/accessibility/>

Privacy and Copyright Disclaimer

Notice of video recording and sharing (Download permissible; re-use prohibited)

While online, 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 source 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.

Lectures and course materials prepared by the instructor are considered by the University to be an instructor's intellectual property covered by the Copyright Act, RSC 1985, c C-42. Course materials such as PowerPoint slides and lecture recordings are made available to you for your own study purposes. These materials cannot be shared outside of the class or "published" in any way. Posting recordings or slides to other websites without the express permission of the instructor will constitute copyright infringement.

Academic Honesty and Plagiarism

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 Mississauga is a strong signal of each student's individual academic achievement. As a result, UTM treats cases of cheating and plagiarism very seriously.

The University of Toronto's Code of Behaviour on Academic Matters outlines behaviours that constitute academic dishonesty and the process for addressing academic offences. Potential offences include, but are not limited to:

In papers and assignments:

1. Using someone else's ideas or words without appropriate acknowledgement.
2. Submitting your own work in more than one course without the permission of the instructor.
3. Making up sources or facts.
4. Obtaining or providing unauthorized assistance on any assignment.

On tests and exams:

1. Using or possessing unauthorized aids.
2. Looking at someone else's answers during an exam or test.
3. Misrepresenting your identity.

In academic work:

1. Falsifying institutional documents or grades.
2. Falsifying or altering any documentation required, including (but not limited to) doctor's notes.

With regard to remote learning and online courses, UTM wishes to remind students that they are expected to adhere to **the Code of Behaviour on Academic Matters** regardless of the course delivery method. By offering students the opportunity to learn remotely, UTM expects that students will maintain the same academic honesty and integrity that they would in a classroom setting. Potential academic offences in a digital context include, but are not limited to:

Remote assessments:

1. Accessing unauthorized resources (search engines, chat rooms, Reddit, etc.) for assessments.
2. Using technological aids (e.g. software) beyond what is listed as permitted in an assessment.
3. Posting test, essay, or exam questions to message boards or social media.
4. Creating, accessing, and sharing assessment questions and answers in virtual "course groups."
5. Working collaboratively, in-person or online, with others on assessments that are expected to be completed individually.

All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters. If you have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, you are expected to seek out additional information on academic integrity from your instructor or from other institutional resources.

Normally, students will be required to submit their final report 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>). If a student wishes to opt out of this, they should notify the instructor by email within a month before the due date of the final report. They can submit their paper directly to the instructor, who will review the essay and may reach out to the student with additional questions.

Academic Rights

You, as a student at UTM, have the right to:

- Receive a syllabus by the first day of class.
- Rely upon a syllabus once a course is started. An instructor may only change marks' assignments by following the University Assessment and Grading Practices Policy provision 1.3.
- Refuse to use turnitin.com (you must be offered an alternative form of submission).
- Have access to your instructor for consultation during a course or follow up with the department chair if the instructor is unavailable.
- Ask the person who marked your term work for a re-evaluation if you feel it was not fairly graded. You have up to one month from the date of return of the item to inquire about the mark. If you are not satisfied with a re-evaluation, you may appeal to the instructor in charge of the course if the instructor did not mark the work. If your work is remarked, you must accept the resulting mark. You may only appeal a mark beyond the instructor if

the term work was worth at least 20% of the course mark.

- Receive at least one significant mark (15% for H courses, 25% for Y courses) before the last day you can drop a course for H courses, and the last day of classes in the first week of January for Y courses taught in the Fall/Winter terms.
- Submit handwritten essays so long as they are neatly written.
- Have no assignment worth 100% of your final grade.
- Not have a term test worth more than 25% in the last two weeks of class.
- Retain intellectual property rights to your research.
- Receive all your assignments once graded.
- View your final exams. To see a final exam, you must submit an online Exam Reproduction Request within 6 months of the exam. There is a small non-refundable fee.
- Privacy of your final grades.
- Arrange for representation from Downtown Legal Services (DLS), a representative from the UTM Students' Union (UTMSU), and/or other forms of support if you are charged with an academic offence.

Equity Statement

The University of Toronto is committed to equity and respect for diversity. All members of the learning environment in this course should strive to create an atmosphere of mutual respect. As a course instructor, I will neither condone nor tolerate behaviour that undermines the dignity or self-esteem of any individual in this course and wish to be alerted to any attempt to create an intimidating or hostile environment. It is our collective responsibility to create a space that is inclusive and welcomes discussion. Discrimination, harassment and hate speech will not be tolerated. If you have any questions, comments, or concerns you may contact the UTM Equity and Diversity officer at edo.utm@utoronto.ca or the University of Toronto Mississauga Students' Union Vice President Equity at vpequity@utmsu.ca.

Please note that this outline is subject to change depending on the needs of the class (we may need additional time to cover a topic). Assignment due dates might be adjusted accordingly (due dates extended), and assigned readings may be adjusted.

Tentative Course Outline

Date	Readings	New Topic	Assignments and readings (submit on Quercus)
Week 1 January 10		Course overview; Introduction; Speech sounds	
Week 2 January 17	Byrd & Mintz (2010) 23-64	The physics of speech; Recording and visualizing speech	
Week 3 January 24	Byrd & Mintz (2010) 114-159	Speech perception	Practical Exercise 1 due Jan. 24
Week 4 January 31	Byrd & Mintz (2010) 159-182	Word recognition; Top-down knowledge	
In-person instruction after this point (subject to change)			
Week 5 February 7	Casasanto (2008) Hall-Lew (2008)	Socio-phonetics; Language and Identity	Practical Exercise 2 due February 7
Week 6 February 14	Kinzler et al. (2007) Lev-Ari & Keysar (2010)	Language Attitudes	
Reading Week February 21		Reading Week (No Lecture or Practical)	
Week 7 February 28	TBD TBD	Multilingualism	Practical Exercise 3 due
Week 8 March 7	Baese-Berk et al. (2013) Pardo et al (2012)	Adaptation and Convergence	
Week 9 March 14	Yu et al. (2021) Xie & Myers (2015)	Talker recognition	
Week 10 March 21	TBD TBD	Speech development	Practical Exercise 4 due
Week 11 March 28		Poster presentations	
Week 12 April 4		FINAL TERM TEST (in-person unless stated otherwise)	Final project due Friday, April 8 11:59 EST

* The schedule is tentative and may change depending on the pace of the class. The readings may also be adjusted.