PSYC56: MUSIC COGNITION
UNIVERSITY OF TORONTO SCARBOROUGH

WINTER 2023 SYLLABUS – IN-PERSON
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Instructor: Olivia Podolak Lewandowska, PhD
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Please use your university email for all contact with the instructor and TAs.

Lecture: Wednesdays from 7:00 – 9:00 p.m. in MW-140. Not recorded.
Office Hours: By appointment over Zoom.

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Course Description, Prerequisites & Objectives

<u>From the UTSC Course Calendar:</u> Studies the perceptual and cognitive processing involved in musical perception and performance. The class acquaints students with the basic concepts and issues involved in the understanding of musical passages. Topics will include discussion of the physical and psychological dimensions of sound, elementary music theory, pitch perception and melodic organization, the perception of rhythm and time, musical memory, musical performance, and emotion and meaning in music.

Additionally, the course will focus on refining practical academic skills, which include:
(a) learning to read and critically analyze original, peer-reviewed research articles, and
(b) collaborating with your peers on a research project (on an approved topic of your choosing) to hone your reading, writing, critical thinking and presentation skills.

<u>Prerequisites:</u> [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and [PSYB51H3 or PSYB55H3 or PSYB57H3]

*Note: Acorn **does not** check whether a student has completed the prerequisites for any course. It is the student's responsibility to check this. If you have an issue with your prerequisites or if you have any further questions, please contact the instructor and the Department of Psychology.*

<u>Enrolment Limits:</u> Restricted to students in the Specialist/Specialist Co-op and Major programs in Psychology and Mental Health Studies. Students in the Minor in Psychology will be admitted if space permits.

<u>Breadth Requirements:</u> Natural Sciences

Learning Outcomes

By the end of the course, students will be able to:

1. Draw from behavioural and neurophysiological perspectives to understand core topics in music cognition, as well as their connection to other areas of cognitive science such as perception, learning, performance, language and development.

2. Understand how theories of musical processing are applied in the development of music therapies for various neuropsychological, auditory and/or musical disorders (e.g., stroke, dementia, autism, amusia, etc.).

3. Draw relevant information from primary research articles, synthesize information across studies, and communicate this information effectively. Students will be assessed on the application of these skills through an annotated bibliography and a research poster project.

4. Understand the importance of the peer review process, and meaningfully revise their work based on feedback given from others. The research proposal project in this course will utilized a "scaffolded" approach, where students will be provided feedback from the instructor, and will be expected to address the critiques and comments in subsequent revisions.

Musical Background

Knowledge of music theory is **not** required for this course but will be useful for certain topics covered in this course. Therefore, the first half of the course will focus on explaining the acoustic properties of sound and music, as well as the neurological structures and processes involved in hearing sound and listening to music to help get all students on the same level of understanding. However, you are strongly encouraged to seek further clarification from either the instructor or the teaching assistants if you feel that you still have gaps in your understanding of the material.

For students who do not possess a background in music or music theory, here is a good YouTube video by Andrew Huang that goes over the basics in sufficient depth for this course: *https://www.youtube.com/watch?v=rgaTLrZGlk0*

Required Course Readings

This course will NOT use a textbook. The primary reason for this (other than saving you some money, of course!) is that we will be prioritizing your ability to extract information from original research, as opposed to memorizing content from a textbook that has already done that service for you. This is part of the process of becoming a more critical consumer of information, which is an invaluable skill in a world so inundated with information.

Every week, you will be assigned peer-reviewed scientific articles that must be read *before* coming to lecture - see the course outline section below for a list of the articles. The purpose of these articles is to increase the depth of your knowledge about the topic of that week. There will also be reading checks (worth 5% each) that will ensure that you are: (1) keeping up with your readings, and (2) extracting the relevant information from the articles (more details on this below).

All required readings will be available to download through the University of Toronto Libraries system.

Course Webpage

Quercus will contain important course-related announcements, lecture slides (to be posted prior to each lecture), discussion boards to connect you with fellow classmates, and course marks. You should check it regularly for course updates.

Course Assessments

1. READING CHECKS [Top 6 checks worth 5% each = 30%]

To build your ability to consume primary research, we will have 7 reading checks on the assigned readings throughout the course (see the schedule below). The top 6 of these reading checks will be counted towards your final grade. Reading checks will be conducted to: (1) ensure that you are up-to-date on your readings, (2) prepare you to successfully navigate the research project and (3) prepare you for the final exam.

The reading checks will be administered as online "quizzes" which will be available 36 hours prior to lecture (i.e., 6 a.m. on Tuesdays) will be due one hour before lecture (i.e., 6 p.m. on Wednesdays). The reading checks should take about 15-20 minutes to do, but you will be given an hour each to complete them. For the most part, the reading checks will consist of short answer questions which will test your understanding of the articles, including the rationale for the study, reasonable (i.e., not nitpicky) features of the methods, understanding and interpreting the results, as well as thinking about future avenues for research. Our second and third lectures will help prepare you for the reading checks. There are no make-ups for online quizzes, even with appropriate documentation. Reading checks are to be completed individually.

2. RESEARCH PROPOSAL POSTER [Multiple parts worth 35% in total]

a. Topic proposal (2.5% of course grade):

Together with two partners of your choosing, you will be asked to conduct a research project (literature review) to further explore current research in a topic associated with music cognition. You will be provided with a separate handout that further details this assignment but, in short, your group will research a minimum of nine references (3 per group member) and detail what you have learned into a scientific poster that your group will present in a conference-like format at the end of the course.

A one-page document that states the topic of your group research project, what motivated its selection (from an academic and real-world perspective), what you hope to examine more specifically, and what you hope to learn from it (i.e., why does this matter).

b. Revised proposal & annotated bibliography (10% of course grade):

This component has two parts:

(1) You must first revisit your 'Topic Proposal' based on the feedback you received. You must thoughtfully address the feedback you have received, either making changes as appropriate or carefully defending an idea/proposal with more support.

(2) You must create an annotated bibliography, which should include a list of APA-formatted references meeting the minimum threshold of nine, and a brief paragraph explaining the goals/value for each research article chosen.

When the marker reads the revised 'Topic Proposal' and annotated bibliography, they should have a crystal-clear understanding of what you want to study, why it matters, and how your chosen articles help in pursuit of your goal.

c. Instructor/TA Evaluation of your poster and presentation (20% of course grade):

There will be two days for poster presentations. On the day that you are scheduled to present, you and your group will be present a research poster to present the findings from your literature search. You will use this poster as a tool to deliver a **maximum** 10-minute talk that equitably splits the work across group members. Your instructor and/or TA will evaluate your presentation based on a detailed rubric. You will be expected to give your research talk multiple times to make space for all of your peer-reviewers (see below), but your instructor/TA will only evaluate your talk once.

d. Peer Evaluation (2.5% of course grade):

There will be two days for poster presentations. On the day that you are not scheduled to present, you will be evaluating the work of your peers using a rubric provided to you. Your mark will be determined based on the detail and thoughtfulness of feedback you provide to the presenters.

3. FINAL EXAM [35%]

The final exam is cumulative and will test all material covered in lectures and all readings, excluding the supplementary readings and any content that is unique to students' poster presentations. The date of the final is not announced by the University until the middle of the term. You should **not** make travel plans until you learn the date of your final exams. The date and time of the final exam will be arranged by the Registrar's Office, and **the exam must be written as scheduled**. In case of illness or extreme emergency at the time of the exam, you should petition for an exam deferral through eService:
(https://www.utsc.utoronto.ca/registrar/deferred-exams).

Extensions & Late Penalties

Short extensions may be granted for good reasons, such as illness, conflict of due dates with assignments for other courses, or personal issues; however, extensions will be granted at the instructor's discretion and are not guaranteed. Extension requests must be made before the due date.

If an extension has been granted before the assignment is due, there will be no penalty for lateness. If no extension has been granted, a penalty of 10% per day will applies to late submissions:

10% deduction: 5 minutes – 24 hours late
20% deduction: 24 hours & 5 minutes – 48 hours late
30% deduction: 48 hours & 5 minutes – 72 hours late
40% deduction: 72 hours & 5 minutes – 96 hours late
50% deduction: 96 hours & 5 minutes – 120 hours late

COURSE WORK WILL NOT BE ACCEPTED IF MORE THAN 5 CALENDAR DAYS HAVE PASSED.

Since reading checks will occur at the beginning of lecture, a student who is late to class will not be allowed to write a reading check if: (1) they are late by 15 minutes or more, or (2) another student has already finished and submitted their paper - whichever occurs first.

Course Topics Outline (Subject to Revision)

WEEK	TOPIC
1 – January 11	Syllabus & Introduction to Music Cognition
2 – January 18	Reading and Understanding Scientific Articles & Research Presentation Overview
3 – January 25	Psychoacoustics: Sound and Hearing • *Group forms due by 6:00 p.m.*
4 – February 1	The Auditory Pathway • *Reading Check #1 & Topic Proposals due by 6:00 p.m.*
5 – February 8	Music Structures I: Musical Pitch and Tonality • *Reading Check #2*
6 – February 15	Music Structures II: Time and Rhythm • *Reading Check #3 & Annotated bibliography due by 6:00 p.m.*
7 – February 22	R E A D I N G W E E K – N O C L A S S
8 – March 1	Music Development • *Reading Check #4*
9 – March 8	Cortical Plasticity and Learning • *Reading Check #5*
10 – March 15	Expectation, Meaning and Emotion • *Reading Check #6*
11 – March 22	Social and Cultural Aspects of Music • *Reading Check #7 & Poster Submission due by 6:00 p.m.* • *Last day to submit your poster for printing (by 4:30 p.m.) but sooner would be better.*
12 – March 29	PRESENTATIONS #1 – Group A *(Group B students will be evaluating)*
13 – April 5	PRESENTATIONS #2 – Group B *(Group A students will be evaluating)*

Course Readings (Subject to Revision)

WEEK	READINGS
1 – January 11	Course Syllabus
2 – January 18	Roediger & Gallo (2001) McDermott & Hauser (2007)
3 – January 25	Good, Gordon, Papsin, Nespoli, Hopyan, Peretz, & Russo (2017) *Supplementary readings: Chapters 1, 2 & 4 from Howard & Angus (2009)*
4 – February 1	Strait, Chan, Ashley, & Kraus (2012)
5 – February 8	Demorest & Osterhout (2012) *Supplementary reading: Chapter 3 from Howard & Angus (2009)* *Supplementary video on Music Theory: https://www.youtube.com/watch?v=rgaTLrZGlk0*
6 – February 15	Phillips-Silver & Trainor (2005)
7 – February 22	READING WEEK – NO READINGS
8 – March 1	Masataka (2006)
9 – March 8	Schlaug, Marchina, & Norton (2009)
10 – March 15	Mori & Iwanaga (2017)
11 – March 22	Good & Russo (2022)
12 – March 29	PRESENTATIONS – NO READINGS
13 – April 5	PRESENTATIONS – NO READINGS

Course Policies

<u>Classroom Conduct and Participation:</u> Our classroom is a place where you should always feel safe and respected. It is also a place that is conducive to learning and intellectual curiosity. Any behaviors compromising this environment will not be tolerated and the student(s) and/or individual(s) will be asked to leave.

I work to create an interactive dynamic during my lectures that engages you to think and contribute. I challenge you to use this time to not only become familiar with the content we are discussing, but to also develop your critical thinking skills along with me.

<u>Lecture slides:</u> For your convenience, lecture slides will usually be posted by the evening before a lecture. They will be posted in PDF format in three versions – 1-slide, 3-slide and 4-slide formats. Lecture slides are not exhaustive and we will regularly cover important material that extends beyond them during lecture. You are responsible for this material with respect to testing.

Instructional materials are only for the purpose of learning in this course and must not be distributed or used for any other reason whatsoever.

<u>E-mail policy:</u> In most cases, e-mails will be answered within 48 hours of receipt (not including weekends). The email subject should include our course name and nature of the inquiry. Emails that you send should contain no more than one or two questions and you should try to explain your current understanding of the concept in the email (which will be affirmed or corrected).

If you are not used to writing emails in an academic context, I encourage you to review this online resource so that you adopt proper email etiquette now and in the future: https://www.insidehighered.com/views/2015/04/16/advice-students-so-they-dont-sound-silly-emails-essay

<u>Office hours:</u> Office hours will be conducted by appointment only. You should consider setting an appointment with the instructor's office hours if you: (1) would like to discuss course content in greater detail than can be covered in an email, (2) have an issue with course performance or progress, or (3) would like to discuss the field of psychology/neuroscience and how to get more involved.

<u>Syllabus changes:</u> There may be minor changes made to the syllabus during the term. You will be notified of these changes immediately and no changes will be instituted that dramatically affect your ability to properly prepare for an assessment or examination (e.g., assigning an extra article the day before a reading check is due).

<u>Punctuality:</u> Punctuality to lectures is a sign of respect to your instructor, teaching assistants and fellow students. Tardy students should not ask the instructor or teaching assistants for what they missed from lecture because they can ask a fellow student. Furthermore, a student will not be granted additional time to complete reading checks if they are started late. There will be no accommodations made for students with course or work schedule conflicts.

AccessAbility – Our Commitment

It is the University of Toronto's goal to create a community that is inclusive of all persons and treats all members of the community in an equitable manner. In creating such a community, the University aims to foster a climate of understanding and mutual respect for the dignity and worth of all persons. In working toward this goal, the University will strive to provide support for, and facilitate the accommodation of individuals with disabilities so that all may share the same level of access to opportunities, participate in the full range of activities that the University offers, and achieve their full potential as members of the University community.

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 accommodations, please feel free to approach the instructor and/or the AccessAbility Services Office (http://www.utsc.utoronto.ca/ability/) 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. AccessAbility Services staff (located in AA142 – Arts and Administration Building) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations. Please contact **416-287-7560** (tel/TTY) or email **ability.utsc@utoronto.ca** for more information. The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.

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.

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. Behaviours that constitute academic dishonesty and the processes for addressing academic offences are outlined in The University of Toronto's Code of Behaviour on Academic Matters: http://www.governingcouncil.utoronto.ca/policies/behaveac.htm

Potential offences include, but are not limited to:
- On tests and exams: (a) Using or possessing unauthorized aids;
  (b) Looking at someone else's answers during an exam or test;
  (c) Misrepresenting your identity.

- In academic work: (a) Falsifying institutional documents or grades;
  (b) Falsifying or altering any documentation required by the University, including (but not limited to) doctor's notes.

All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters:
http://www.governingcouncil.utoronto.ca/Assets/Governing+Council+Digital+Assets/Policies/PDF/ppjun011995.pdf

Useful Links & Information

Academic Resources at UTSC
Office of the Registrar	https://www.utsc.utoronto.ca/registrar/
AccessAbility	https://www.utsc.utoronto.ca/ability/welcome-accessability-services
Academic Integrity	https://www.utsc.utoronto.ca/vpdean/academic-integrity-matters
Academic Advising & Career Centre	http://www.utsc.utoronto.ca/aacc/
Writing Support	http://www.utsc.utoronto.ca/twc/
Arts & Sci Co-op Program	https://www.utsc.utoronto.ca/artscicoop/
Academic Learning Support	https://www.utsc.utoronto.ca/ctl/academic-learning-support
Scarborough Campus' Student Union	https://www.scsu.ca/
Resources for Learning Remotely	https://utoronto.sharepoint.com/sites/UTSC-RemoteAccess
IT Support – Student Helpdesk	Call (416) 287-4357

Statistical Help and Resources

Math and Stats Support at UTSC	https://www.utsc.utoronto.ca/ctl/math-and-stats-support
Textbook: Interactive Demonstrations	http://statsapp-demos.utsc.utoronto.ca/
Khan Academy	https://www.khanacademy.org/math/statistics-probability
APA Formatting	https://owl.english.purdue.edu/owl/resource/560/01/

Safety & Well-Being at UTSC

Navi: Mental Health Wayfinder	www.uoft.me/navi
Mental Health Resources	https://www.utsc.utoronto.ca/home/mental-health-resources
Health and Wellnes	http://www.utsc.utoronto.ca/hwc/
Sexual Violence Response	https://www.utsc.utoronto.ca/hwc/sexual-violence-response
Campus Safety	https://www.utsc.utoronto.ca/safety/
Campus Police	Call (416) 978-2222 or 911 in case of emergency

The Centre for Teaching and Learning (CTL) is available to support you in your writing, math and stats, and English language needs. It offers online and in-person tutoring and consultations, and has a variety of helpful resources. For more information, please visit CTL's Student Support Centre at AC313 or check out https://uoft.me/AcademicLearningSupport.

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 procedures outlined below.

Note:
- The following reasons are not considered sufficient for missed term work: travel for leisure, weddings, personal commitments, work commitments, human error.
- Missed Final Exams are handled by the Registrar's Office and should be declared on eService.
- 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.

> The email address to submit missed term work accommodation requests in PSYC56 is:
> ## olivia.podolak@mail.utoronto.ca

ILLNESS OR EMERGENCY accommodations:

    For missed work due to ILLNESS OR EMERGENCY, complete the following process:
1. Complete the Request for Missed Term Work Accommodations Form.
2. Declare your absence on ACORN (Profile & Settings > Absence Declaration)
3. Email **both** of the following items to the course email WITHIN 2 BUSINESS DAYS of the missed work:
   - the Request for Missed Term Work Accommodations Form
     AND
   - a screenshot of your Self-Declared Absence on ACORN

  Note:
- If you are unable to submit your request within 2 business days, you must still email your instructor within the 2-business-day window to explain the nature of the delay. Exceptions to the 2-business-day deadline will only be made under exceptional circumstances.

- If your absence is declared on ACORN, we do not require any additional supporting documentation (e.g. medical notes) to support your missed term work accommodation request.

ACADEMIC CONFLICT accommodations:

      For missed term work due to an ACADEMIC CONFLICT (e.g. two midterms at the same time):

1. Complete the [Request for Missed Term Work Accommodations Form](#).
2. Take screenshots of your course Quercus pages that demonstrate the conflict.
3. Email the form and screenshots to the course email at least two weeks (10 business days) before the date of the activity, or as soon as possible if it was not possible to identify the conflict earlier. Requests sent after the activity deadline may not be accommodated.

  Note:

- Multiple assignments due on the same day are not considered conflicts. Students are expected to manage their time effectively to meet assignment deadlines.
- Back-to-back tests/quizzes are not considered 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.

RELIGIOUS CONFLICT accommodations:

      For missed term work due to a RELIGIOUS CONFLICT:

1. Complete the [Request for Missed Term Work Accommodations Form](#).
2. Email the form to the course email at least two weeks (10 business days) before the date of the activity, or as soon as possible if it was not possible to identify the conflict earlier. Requests sent after the activity deadline may not be accommodated.

ACCESSABILITY SERVICES accommodations:

      For missed TERM TESTS due to ACCESSABILITY REASONS:

- Contact your AccessAbility consultant and have them email the course email detailing accommodations required.

      For missed ASSIGNMENTS due to ACCESSABILITY REASONS:

- 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):
    1. Complete the [Request for Missed Term Work Accommodations Form](#).
    2. Email the form *AND* your Accommodation Letter to the course email specifying 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 7 days" but you need more time than that):
    1. Contact your AccessAbility consultant and have them email the course email detailing the accommodations required.

Accommodation Procedure:

After submitting your documentation, you will receive a response from your instructor or TA. This form does not guarantee that you will be accommodated. The course instructor reserves the right to decide what accommodations (if any) 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.

For an anticipated absence (e.g. a scheduled surgery or an illness with a prolonged recovery period), if you would like to request accommodations in advance, submit a Verification of Illness Form completed by your doctor AND the Request for Missed Term Work Accommodations Form to the course email. Absences can be declared up to 14 days into the future on ACORN.

Missed Accommodations

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. E.g. If you are given an extension but are still sick and need more time, or if you miss a make-up term test, you must submit another Request for Missed Term Work Accommodations Form and declare your extended absence on ACORN. *Note: In the case of a missed make-up test, an opportunity to write a second make-up test may not necessarily be provided.