

COURSE OUTLINE WINTER 2017
PSYCH/MUSICCOG 4PM3 Neuroscience of Music Cognition

Instructor: Dr. Laurel Trainor Psychology Building 305
LJT@mcmaster.ca 905-525-9140 x23007

Course TA: Sarah Lade lades@mcmaster.ca

Location: BSB/238A

Time: Tuesday 9:30–10:20 am; Friday 9:30-11:20 am

Office hours: By appointment

Course Objectives. In this course we will examine perceptual, cognitive, and socioemotional aspects of music from a neuroscientific point of view. The roles of evolution, biology, innate factors, and experience in human musical activity and ability will be considered. The class will be run as a part lecture and part seminar, and students are expected to read the assigned papers before class and to participate in class discussions. Students will work in groups, do presentations in class, read primary source materials, and learn to think critically.

Course Schedule (subject to revision)

Readings are available for download from the Avenue Course page for 4MP3.

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| F Jan 6 | <i>Introduction and cultural and evolutionary theories of music</i>
1. Huron, 2001a (evolutionary theories of music) |
| T Jan 10 | 2. Trainor, 2015 (auditory scene analysis & evolution of music) |
| F Jan 13 (1st hr) | 2. Trainor, 2015 continued |
| F Jan 13 (2nd hr) | <i>Pitch and tonality</i>
Models of tonal pitch structure & EEG primer (lecture) |
| T Jan 17 | 3. Trainor et al., 2002 (neural encoding of relative pitch) |
| F Jan 20 (1st hr) | 4. Huron, 2001b (auditory scene analysis & rules of composition) |
| F Jan 20 (2nd hr) | Theories of consonance and dissonance (lecture) |
| T Jan 24 | 5. McDermott et al., 2016* (is preference for consonance universal?) |

- F Jan 27** *Rhythm and movement*
6. Grahn & Brett, 2007* (rhythm encoding in the brain)
7. Schacter et al., 2009* (rhythm and movement across species)
- T Jan 31** 8. Zatorre, Chen, & Penhune, 2007
- F Feb 3** *Entrainment, Parkinson's disease and social interaction*
9. Nozaradan, 2012*
10. Fujioka et al., 2012*
- T Feb 7** 11. McIntosh et al., 1997*
- F Feb 10** 12. Wiltermuth & Heath, 2009*
13. Cirelli et al., 2014*
- T Feb 14** **Work on presentations; TA available**
- F Feb 17** **Presentation group meetings with Prof**
- Mid-term Recess**
- T Feb 28** *Amusia, musical interventions, and effects of musical experience*
14. Loui, Alsop, & Schlaug, 2009*
- F Mar 3** 15. Philips-Silver et al., 2011*
16. Wan et al., 2014*
- T Mar 7** 17. Trainor et al., 2012*
- T Mar 7** **Progress report on grant proposal due**
- F Mar 10** **Presentation group meetings with Prof**
- T Mar 14** *Expectation, meaning and emotion*
18. Huron, Chapter 1, 2006
- F Mar 17** 19. Trainor & Zatorre, 2009
20. Salimpoor et al., 2011*
- 21, 24, 28, 31** *Presentations*
- T April 4** *Experiencing & performing music*
21. Limb & Braun, 2008*
Summary and give out take home exam

Academic Dishonesty Policy Reminder

Academic dishonesty consists of misrepresentation by deception or by other fraudulent means and can result in serious consequences, e.g., the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university. It is your responsibility to understand what constitutes academic dishonesty. For information on the various kinds of academic dishonesty please refer to the Academic Integrity Policy, specifically Appendix 3, located at <http://www.mcmaster.ca/academicintegrity>.

Evaluation

Late assignments will not be accepted unless prior arrangements have been made with the instructor.

12% Attendance and participation. Note that for high marks, comments and questions must make an intellectual contribution.

24% Critiques. Due dates depend on which ones you are assigned.

4% Progress Report on Grant Proposal. Due March 7th

15% Written Grant Proposal. Due the *class before* your oral presentation.

15% Oral Presentation of Grant Proposal.

10% Peer Evaluation of Grant Proposal. Due one week after the presentation you are evaluating.

20% Final Take Home Exam

McMaster's Grading Scale

90-100	85-89	80-84	77-79	73-76	70-72	67-69	63-66	60-62	57-59	53-56	50-52	0-49
A+	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F

The instructor reserves the right to adjust the final marks up or down, on an individual basis, in the light of special circumstances.

A note on dates and deadlines: The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with an explanation and the opportunity to comment on changes. It is the responsibility of the student to check Avenue and their McMaster email regularly during the term and to note any changes.

A note on class attendance: Because much of this class is based on discussion and presentations, it is very hard to do well unless you attend all classes.