

**Course Outline Winter 2019
PSYCH/MUSICCOG 4PM3
Neuroscience of Music Cognition**

Instructor: Dr. Laurel Trainor Psychology Building 305
LJT@mcmaster.ca x23007

Course TA: Erica Flaten flatene@mcmaster.ca

Location: BSB/115

Time: Tuesday 12:30–1:20; Friday 12:30-2:20pm

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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| T Jan 8 | <i>Introduction and cultural and evolutionary theories of music</i> 1. Huron, 2001a (evolutionary theories of music) |
| F Jan 11 | 2. Trainor 2015 (auditory scene analysis & evolution of music) |
| | <i>Pitch and tonality</i> |
| T Jan 15 | Models of tonal pitch structure & EEG primer (lecture) |
| F Jan 18 | 3. Trainor et al. 2002 (neural encoding of relative pitch) 4. Huron 2001b (auditory scene analysis & rules of composition) |
| T Jan 22 | 4. Huron 2001b (auditory scene analysis & rules of composition) cont. Theories of consonance and dissonance (lecture) |
| F Jan 25 (1st hour) | 5. McDermott et al. 2016* (is preference for consonance universal?) |
| | <i>Rhythm and movement</i> |
| F Jan 25 (2nd hour) | 6. Grahn & Brett, 2007* (rhythm encoding in the brain) |
| T Jan 29 | 7. Schacter et al., 2009* (rhythm and movement across species) |
| F Feb 1 | 8. Patel & Iversen, 2014 9. Honing et al., 2018* |

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| | <i>Entrainment, Parkinson's disease and social interaction</i> |
| T Feb 5 | 10. Fujioka et al. 2012* |
| F Feb 8 | 11. McIntosh et al., 1997* 12. Wiltermuth & Heath 2009* |
| T Feb 12 | 13. Cirelli et al 2014* |
| | <i>Amusia, musical interventions, and effects of musical experience</i> |
| F Feb 15 | 14. Loui, Alsop & Schlaug, 2009* 15. Philips-Silver et al., 2011* |
| Mid-term Recess | |
| T Feb 26 | 16. Wan et al., 2014* |
| F Mar 1 | Presentation group meetings with Prof |
| T Mar 5 | 17. Trainor et al., 2012* |
| F Mar 8 | Progress report on grant proposal due |
| | <i>Expectation, meaning and emotion</i> |
| F Mar 8 | 18. Huron, Chapter 1, 2006 19. Trainor & Zatorre, 2009 |
| T Mar 12 | 20. Salimpoor et al., 2011* |
| F Mar 15 | Presentation group meetings with Prof |
| | <i>Experiencing & performing music</i> |
| T Mar 19 | 21. Chang et al. 2017* (non-verbal communication between performers) |
| F Mar 22 | 22. Limb & Braun, 2008* (improvisation) 23. Wilkins et al. 2014* (musical preferences) |
| T Mar 26 | Work on presentations; TA available |
| F Mar 29 | <i>Presentations</i> |
| T April 2 | <i>Presentations</i> |
| F April 5 | <i>Presentations</i> |
| T April 9 | Final discussion and take-home exam |

* Student-led class discussions

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.

- 14%** Attendance, participation, leading class discussion of 2 papers. Note that for high marks, comments and questions must make an intellectual contribution.
- 24%** Critiques. Due dates depend on which ones you are assigned.
- 2%** Progress Report on Grant Proposal. Due March 8th
- 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

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|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| 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.