

COURSE OUTLINE WINTER 2018
PSYCH/MUSICCOG 4PM3 Neuroscience of Music Cognition

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

Course TA: Chantal Carrillo carrilcj@mcmaster.ca

Location: BSB/238A

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

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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| F Jan 5 | <i>Introduction and cultural and evolutionary theories of music</i> 1. Huron, 2001a (evolutionary theories of music) |
| T Jan 9 | 2. Trainor 2015 (auditory scene analysis & evolution of music) |
| F Jan 12 (1st hr) | 2. Trainor 2015 continued |
| F Jan 12 (2nd hr) | <i>Pitch and tonality</i> Models of tonal pitch structure & EEG primer (lecture) |
| T Jan 16 | 3. Trainor et al. 2002 (neural encoding of relative pitch) |
| F Jan 19 (1st hr) | 4. Huron 2001b (auditory scene analysis & rules of composition) |
| F Jan 19 (2nd hr) | Theories of consonance and dissonance (lecture) |
| T Jan 23 | 5. McDermott et al. 2016* (is preference for consonance universal?) |

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| | <i>Rhythm and movement</i> |
| F Jan 26 | 6. Grahn & Brett, 2007* (rhythm encoding in the brain) 7. Schacter et al., 2009* (rhythm and movement across species) |
| T Jan 30 | 8. Zatorre, Chen & Penhune, 2007 |
| | <i>Entrainment, Parkinson's disease and social interaction</i> |
| F Feb 2 | 9. Nozaradan et al. 2012* 10. Fujioka et al. 2012* |
| T Feb 6 | 11. McIntosh et al., 1997* |
| F Feb 9 | 12. Wiltermuth & Heath 2009* 13. Cirelli et al 2014* |
| T Feb 13 | Work on presentations; TA available |
| F Feb 16 | Presentation group meetings with Prof |
| | Mid-term Recess |
| | <i>Amusia, musical interventions, and effects of musical experience</i> |
| T Feb 27 | 14. Loui, Alsop & Schlaug, 2009* |
| F Mar 2 | 15. Philips-Silver et al., 2011* 16. Wan et al., 2014* |
| T Mar 6 | 17. Trainor et al., 2012* |
| T Mar 6 | Progress report on grant proposal due |
| F Mar 9 | Presentation group meetings with Prof |
| | <i>Expectation, meaning and emotion</i> |
| T Mar 13 | 18. Huron, Chapter 1, 2006 |
| F Mar 16 | 19. Trainor & Zatorre, 2009 20. Salimpoor et al., 2011* |
| March 20, 23, 27 April 3 | <i>Presentations</i> |
| F April 6 | <i>Experiencing & performing music</i> 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 6th

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.