

## Honours Psychology, Neuroscience & Behaviour (B.Sc.) (Music Cognition Specialization)

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### ADMISSION NOTES

1. One of CHEM 1A03, PHYSICS 1B03 or 1L03 is required for admission, however, completion of CHEM 1A03 and one of PHYSICS 1B03 or 1L03 is required by the end of Level II. It is strongly recommended that both CHEM 1A03 and one of PHYSICS 1B03 or 1L03 be completed in Level I. Concepts from PHYSICS 1BB3 are particularly useful for understanding neuroscience, mathematical modelling, and perception. Students interested in these areas are encouraged to take PHYSICS 1B03 followed by PHYSICS 1BB3.
2. MATH 1B03 is strongly recommended for students intending to pursue graduate work in psychology or neuroscience. COMP SCI 1MA3 or PHYSICS 2G03 is highly recommended for students interested in neuroscience, cognition and perception, and for students intending to pursue graduate work in psychology.
3. One of MUSIC 1A03 or 1AA3 is required for admission, however, completion of both are required for degree completion.
4. Students who have completed Grade 5 History (or History 3) from the Royal Conservatory of Music, with a grade of at least 70%, are not required to complete MUSIC 1A03 or 1AA3 for consideration to the Music Cognition Specialization.
5. Students who have completed Harmony 4 (Grade 4 Theory) from the Royal Conservatory of Music, with a grade of at least 70%, will receive advance credit for MUSIC 1CC3.

### ADMISSION

**Enrolment in this program is limited** and possession of the published minimum requirements does not guarantee admission. Selection is based on academic achievement but requires, as a minimum, completion of any Level I program with a Cumulative Average of at least 6.0 including:

- 6 units PSYCH 1X03 (or 1AA3), 1XX3 (or 1A03) with a grade of at least B- in each
- 3 units from MATH 1A03, 1LS3
- 6 units BIOLOGY 1A03, 1M03 (or 1AA3)
- 3 units from CHEM 1A03, PHYSICS 1B03, 1L03 (See *Admission Note 1*)
- 6 units from Life Sciences I Course List (See *Admission Notes 1 & 2*)
- 3 units from MUSIC 1A03, 1AA3 (See *Admission Note 3*)

### PROGRAM NOTES

1. Entrance into MUSIC 1CC3 requires Grade 2 Rudiments from the Royal Conservatory of Music (a grade of 80% or above, within last 2 years) or a grade of 65% or above on a qualifying music theory exam administered by the School of the Arts (SOTA). Appointments can be made with SOTA to write the exam on specific dates between February and May. The content of the exam is summarized at: <http://www.humanities.mcmaster.ca/audition/index.html>
2. The Department of Psychology, Neuroscience & Behaviour pre-registration ballot will be done in two phases. The first phase will include the thesis courses (PSYCH 4D06, 4D09), and the Individual Study courses (PSYCH 3Q03, 3QQ3, 4Q03, 4QQ3). Students wishing to take these courses must complete and submit a ballot by **mid February**. 3. Students will be informed of the outcome of the first phase by **mid March**. The second phase will include lab courses (PSYCH 3EE3, 3L03, 3LL3, 3MM3, 3S03, 3V03). Students wishing to take these courses must complete and submit a ballot by **mid April**. Specific dates will be announced during the fall term. Ballots can be obtained from the Department of Psychology, Neuroscience & Behaviour web site at <http://www.mcmaster.ca/psychology>.
3. A maximum of six units from PSYCH 3AB3, 3AC3, 3AG3, 3BA3, 3CB3, 3CD3 may be used as electives.
4. PSYCH 3QQ3 or 4QQ3 may fulfill the Level III Lab requirement only if taken under the supervision or co-supervision of a faculty member in the Department of Psychology, Neuroscience & Behaviour.
5. Both Music 1A03 and 1AA3 must be completed for degree completion.

### LAB COURSE LIST

PSYCH 3EE3, 3L03, 3LL3, 3MM3, 3QQ3, 3S03, 3V03, 4QQ3

### CAPSTONE COURSE LIST

PSYCH 3I06, 4B03, 4BN3, 4C03, 4D06, 4F03, 4J03, 4KK4, 4L03, 4Q03, 4QQ3, 4R03, 4Y03

### PSYCHOLOGY COURSE LIST

BIOLOGY 3P03, 4T03; HTH SCI 4BB3; KINESIOL 3E03, 4P03; LIFE SCI 3K03; all Level III and IV Psychology courses except PSYCH 3AB3, 3AC3, 3AG3, 3BA3, 3CB3, 3CD3

### REQUIREMENTS

120 units total (Levels I to IV), of which no more than 48 units may be Level I

## LEVEL I

30 units (See *Admission*)

## LEVEL II: 30 UNITS

6 units PSYCH 2RA3, 2RB3  
3 units from PSYCH 2D03, 2F03, 2N03  
9 units PSYCH 2E03, 2H03, 2TT3  
0-3 units from CHEM 1A03, PHYSICS 1B03 or 1L03 if not completed in Level I (See *Admission Note 1*)  
3 units MUSIC 1CC3 (See *Program Note 1*)  
3 units PSYCH 2MA3 (or MUSICCOG 2A03)  
3-6 units Electives (See *Program Note 5*)

## LEVEL III: 30 UNITS

6 units from Psychology Course List (PSYCH 3A03 and 3H03 recommended)  
3 units from Lab Course List (See *Program Notes 2 and 4*)  
6 units MUSIC 2H03, 2CC3  
6 units from PSYCH 3MA3, 3MB3 (or MUSICCOG 3A03, 3B03)  
9 units Electives (See *Program Notes 3 and 5*)

## LEVEL IV: 30 UNITS

6 units from Psychology Course List  
9 units 6 units from Capstone Course List or MUSICCOG 4D06 and 3 units from Psychology Course List  
or  
PSYCH 4D09 (See *Program Note 2*)  
15 units Electives (See *Program Notes 3 and 5*)

## Some of the Courses Listed in the Program:

Music 1A03 - Intro to the History of Music I (Western music from Gregorian chant to the time of Back & Handel)  
Music 1AA3 – Intro to the History of Music II (Western music from Mozart to the present)  
Music 1CC3 – Harmony I  
Music 2CC3 - Harmony II  
Music 2H03 – Analysis

Musiccog 2A03/Psych 2MA3 - Music Cognition  
Musiccog 3A03/Psych 3MA3 – Neuroscience of Music Cognition  
Musiccog 3B03/Psych 3MB3 – Cognitive Development & Music Education

Psych 2RA3 & 2RB3 – Research Design & Statistics for Behavioural Sciences I & II  
Psych 2D03/2F03/2N03 – Neuroscience/Neuropsychology  
Psych 2E03 – Sensory Processes  
Psych 2H03 – Human Learning & Cognition  
Psych 2TT3 – Animal Behaviour  
Psych 3A03 – Audition  
Psych 3H03 – The Arts & the Brain

**Honours Psychology, Neuroscience & Behaviour with the Music Cognition Specialization is a multidisciplinary program that brings together science and the arts in a unique and innovative way. Students will study:**

- how the auditory and motor systems interact to produce music
- how people encode and recognize music
- how music induces emotional reactions
- how musical experience and training affect brain development
- how musical training/exposure affects language, cognitive, and social abilities in both children and adults.

**Faculty Advisors:** Dr. Brown ([stebro@mcmaster.ca](mailto:stebro@mcmaster.ca))  
Dr. Trainor ([ljt@mcmaster.ca](mailto:ljt@mcmaster.ca))

**Website:** <http://mimm.mcmaster.ca/>