



MEMORANDUM

To: Executive Committee of Faculty Council (November 20, 2017)
Faculty Council (December 12, 2017)

From: Prof. Evan Bentz
Chair, Undergraduate Curriculum Committee

Date: November 8, 2017

Re: **Proposed Undergraduate Engineering Music Performance Minor**

REPORT CLASSIFICATION

This is a major policy matter that will be considered by the Executive Committee for endorsing and forwarding to Faculty Council for vote as a regular motion (requiring a simple majority of members present and voting to carry).

BACKGROUND

Many students within the Faculty of Applied Science & Engineering have a strong interest and background in various musical disciplines, as evidenced through the Skule Orchestra, Choir, Stage Band and other musical clubs, not to mention notable alumni such as Isabel Bayrakdarian.

The Engineering Music Performance Minor was designed for Engineering undergraduates interested in exploring creativity in performance and music technology. This minor is open to any student completing an undergraduate degree in the Faculty of Applied Science & Engineering.

Through our partnership with the Faculty of Music, we are able to provide access to a unique performance-based program, including courses normally only open to their students. Our aim with the new minor is to provide students an opportunity to pursue their musical interests in a way that contributes to their degree program requirements and explores the ties between the two fields.

We have worked closely with the Faculty of Music to create these opportunities for our students, which will hopefully also develop further academic and research connections between the two Faculties.

The minor will provide engineering students with a depth and breadth of knowledge in an area outside of traditional engineering disciplines. Students will gain an understanding of the study of music and performance and the applications and areas of intersection between music and engineering. The core courses provide grounding in the study and performance of music, music theory and engineering applications within acoustics, signal processing (both physiological and technological) and noise control. Students can then apply this knowledge to further studies in music technology, cultural areas, or engineering applications.

PROCESS

This proposal has been reviewed and approved by the Undergraduate Curriculum Committee, which is composed of representatives from each program, the Vice-Dean, Undergraduate, the Vice-Dean, First Year Engineering, the Associate Dean, Cross-Disciplinary Programs, and the Registrar. The Committee meets regularly to review proposed changes to the curriculum.

This proposal has also been reviewed by the Faculty of Music Undergraduate Education Committee.

PROGRAMS

All programs are involved in these changes, and the impact on students in the various programs has been considered.

MOTION FOR FACULTY COUNCIL:

THAT the Engineering Music Performance Minor be approved, effective September 2018, as described in the attached proposal.

University of Toronto Faculty of Applied Science & Engineering Major Modification Proposal

New Freestanding Minor Where There is No Existing Specialist or Major

What is being proposed:	Engineering Music Performance Minor
Department/unit:	Cross-Disciplinary Programs Office
Faculty:	Applied Science and Engineering
Faculty contact:	Prof. Bryan Karney, Associate Dean, Cross-Disciplinary Programs
Department/unit contact:	Caroline Ziegler, Faculty Governance and Programs Officer Sharon Brown, Manager and Academic Advisor, Cross-Disciplinary Programs Office
Version date:	November 8, 2017

Summary

Many students within the Faculty of Applied Science & Engineering have a strong interest and background in various musical disciplines, as evidenced through the Skule Orchestra, Choir, Stage Band and other musical clubs, not to mention notable alumni such as Isabel Bayrakdarian.

The aim of the proposed Engineering Music Performance Minor, and the Music Technology Certificate, also under development, is to provide an opportunity for students to pursue their musical interests in a way that contributes to their degree program requirements, and explore the ties between the two fields.

We have worked closely with the Faculty of Music to create these opportunities for our students, which will also help develop further academic and research connections between our two Faculties.

Effective Date

September 1, 2018

Academic Rationale

The Engineering Music Performance Minor was designed for Engineering undergraduates interested in exploring creativity in performance with music technology. This minor is open to any student completing an undergraduate degree in the Faculty of Applied Science & Engineering. Through our partnership with the Faculty of Music, we are able to provide access to a unique performance-based program, including courses normally only open to their students.

Engineering students have a prescribed set of program requirements for their undergraduate degrees, as set out by the Canadian Engineering Accreditation Board. Within these requirements, there are opportunities for technical electives, humanities electives and “free” electives. Minor and certificate programs provide an opportunity for students to focus their electives in a particular field, which will be recognized by a notation on their transcript. They also provide an opportunity for students to reflect their personal interests in their studies.

The minor will provide engineering students with a depth and breadth of knowledge in an area outside of traditional engineering disciplines. They will gain an understanding of the study of music and performance and the applications and areas of intersection between music and engineering. The core courses provide grounding in the study and performance of music, music theory and engineering applications within acoustics, signal processing (both physiological and technological) and noise control. Students can then apply this knowledge to further studies in music technology, cultural areas or engineering applications.

Need and Demand

The Engineering Music Performance Minor provides an opportunity for students to be recognized for pursuing three full-course equivalents related to the intersection of music and technology. Many engineering students have demonstrated interest in the pursuit of music in their extra-curricular activities and also through their choice of Music electives (MUS) for their Humanities electives, indicating the potential for significant interest.

The program will require students in programs without free electives to take some of the courses as Extra courses (beyond their degree requirements), thus we anticipate that the interest in this minor will be focused on a smaller number of students who have a particular interest in music performance and the connections to engineering concepts.

As the foundational course, PMU2xxY, is very resource-intensive in terms of teaching needs, the enrolment in this course will be limited (at least during the pilot year) to a maximum outlined by the Faculty of Music. Currently this is proposed to be eight pianists, four string players and two chamber groups. Thus the enrolment in the minor will be limited by the number of students allowed to enroll in PMU2xxY.

Admission/Eligibility Requirements

Enrollment in the Engineering Music Performance Minor is conditional on acceptance into the core course for the minor, PMU2xxY1 Y. This will be based on a placement test, and may be competitive if demand exceeds the maximum number of placements. Minimum playing level required is RCM Gr. 8, plus background in theory and rudiments (Rudiments II or equivalent).

Auditions will be held during winter term (mid-March) of the previous academic year with decisions determined by May 1st. Auditions must take place early enough to post TA positions by CUPE deadlines, and before student course registration. Auditions will be adjudicated by one music faculty member and one other instrument specialist.

Audition Repertoire:

Option 1 – Solo Instrumental Applied – Classical

- 2 contrasting solo pieces (or movements) at Gr. VIII RCM level or above

Option 2 - Chamber Ensemble - Classical

- 1 movement of a chamber work if pre-formed group

OR

- 2 contrasting solo pieces (or movements) at Gr. VIII RCM level or above

Option 3 – Solo Jazz

- 2 contrasting pieces of varying styles

Requirements for the Minor

The Engineering Music Performance Minor consists of three required courses (2.0 FCE) and two half-course electives (1.0 FCE).

The three required core courses are Applied Performance (PMU2xxY1 Y), a new course being created specifically for engineering students; Music Theory 1 (TMU130H1 H), for a grounding in musical theory; and an engineering course in Sensory Communication (ECE446), which examines the science and engineering behind sound, acoustics, how sound signals are processed physiologically and through electrical systems.

Students then have a choice of two half-course electives, at least one of which must be a course relating to technology and music. A thesis or capstone design project related to music could be approved by the Director to count towards their elective requirements.

The tables below indicate how the courses in the minor connect to their degree requirements. Some courses within the minor are only eligible for Free Elective (FE) or Extra course status (EXT), therefore students wishing to pursue this minor must be prepared for course work above and beyond their degree requirements. ECE446 and Technical courses from the Faculty of Music (T) may be requested as Technical Elective Substitutions (TES) for a student's degree program, subject to the approval of the student's home department. ECE446 is currently an

approved Technical Elective (TE) for students in the Electrical and Computer Engineering programs and two Engineering Science majors. The course is open to students in any engineering discipline. Courses designated as HSS will count towards a student's Humanities and Social Sciences electives.

Course Title	Course Code	Weight	DE Classification
1. Applied Performance	PMU2xxY1 Y	1.0	FE/EXT
2. Music Theory 1	TMU130H1 H	0.5	FE/EXT
3. Sensory Communication	ECE446H1 F	0.5	TE/TEs/FE/EXT

4. Two other electives (1.0 FCE) from the list of designated courses or a departmental thesis and design courses:

Course Title	Course Code	Weight	Category	DE Classification
Introduction to Computer Applications in Music	TMU111H1	0.5	T	FE/EXT
Electroacoustic Music I	TMU319H1	0.5	T	TES/FE/EXT
Electroacoustic Music II	TMU320H1	0.5	T	TES/FE/EXT
Introduction to Music Recording	TMU313H1	0.5	T	TES/FE/EXT
Live Coding: Digital Audio in Real Time	TMU330H1	0.5	T	TES/FE/EXT
Max/MSP	TMU406H1	0.5	T	TES/FE/EXT
Music Related Thesis or Capstone		0.5 or 1.0	T	TE
Introduction to Music & Society	HMU111H1	0.5		HSS
Music Theory 2	TMU131H1	0.5		FE/EXT
Introduction to Music History and Culture	MUS110H1	0.5		HSS
Historical Survey of Western Music	MUS111H1	0.5		HSS
Music of the World's Peoples	MUS200H1	0.5		HSS
The Age of Bach and Handel	MUS204H1	0.5		HSS
Performing Arts of South Asia	MUS209H1	0.5		HSS
The World of Popular Music	MUS211H1	0.5		HSS
Music, Sound & Power in the Middle East	MUS212H1	0.5		HSS
Heavy Music	MUS240H1	0.5		HSS
Symphony	MUS302H1	0.5		HSS
Popular Music in North America	MUS306H1	0.5		HSS
Handel	MUS308H1	0.5		HSS
A Social History of the Piano	MUS335H1	0.5		HSS

See Appendix A for proposed calendar copy.

See Appendix B for proposed new course to be approved by the Faculty of Music.

See Appendix C for a full list of the course numbers and titles.

Program Structure, Learning Outcomes and Degree-Level Expectations (DLEs)

Engineering minors are designed to recognize students for focusing their degree program electives in a particular area of study. As they are an optional structure, above and beyond degree requirements, minors themselves are enhancements to existing rigorous degree-level expectations for engineering programs. The minors are structured to ensure further depth and breadth in their area of focus that supports the learning objectives of their engineering program.

This minor is a truly interdisciplinary program, contributing to students' breadth of knowledge. It requires engineering students to explore new scholarly connections beyond the traditional engineering fields. Students will refine performance and practice skills, build their knowledge of music theory – the language of music – while exploring the science of sound in an engineering framework. The electives of the minor build upon one or more of the core courses, providing students with an opportunity to gain further depth in their area of interest and connect those foundational concepts to other aspects of music, technology and design.

Assessment of Teaching and Learning

Assessment in the courses included in the minor will follow the established guidelines within the Faculty of Music (for PMU, TMU, HMU and MUS courses) and the Faculty of Applied Science & Engineering for ECE446 and engineering thesis and design courses.

Assessment expectations for the new PMU2xxY course through the Faculty of Music can be found in Appendix B.

Consultation

Over the last year, the Cross-Disciplinary Programs Office has had many discussions with the Faculty of Music, culminating in the creation of this proposal and one for a certificate in Music Technology.

The Engineering Music Performance Minor proposal was co-developed with the Associate Dean, Academic and Student Affairs at the Faculty of Music, and the Associate Dean, Graduate Studies at the Faculty of Music. It will be considered for approval by the Faculty of Music's Curriculum Committee, and concurrently through the Councils of the Faculty of Music and the Faculty of Applied Science & Engineering.

The proposal has also been circulated for comment by the Skule Orchestra, Skule Choir, Skule Stageband, engineering students in the UofT Music Clubs Initiative and the students in the Tales of Harmonia club.

Resources

Resource costs for the Engineering Music Performance Minor will ultimately be covered through the University's new Interdivisional Teaching framework. The Faculty of Music will receive "per student" compensation when engineering students are enrolled in their courses, similar to the existing agreement between FASE and FAS.

Enrolment and administration of the minor will be managed through the existing resources of the Cross-Disciplinary Programs Office.

Faculty Requirements

Table 1: Detailed List of Committed Faculty

Faculty Name and Rank	Home Unit	Area(s) of Specialization
Willy Wong, Associate Professor	Electrical and Computer Engineering, FASE	Biomedical Engineering / Computer Engineering Director of the Minor
Ryan McClelland, Professor, Associate Dean, Academic and Student Affairs	Faculty of Music	Music Theory Faculty of Music Program Liaison for Minor
Midori Koga, Associate Professor, Associate Dean Graduate Studies	Faculty of Music	Keyboard, Piano, Piano Pedagogy Instructional oversight for PMU2xxY

Space/Infrastructure

PMU2xxY will make use of the new music room in the Centre for Engineering Innovation & Entrepreneurship (CEIE) where possible, in order to provide closer access for engineering students. Priority access to the CEIE room remains with the music clubs.

Faculty of Music courses and Faculty of Arts & Science courses will be roomed as per their needs.

Governance

Steps	Date
Development/consultation with the units	Nov 2016-Oct 2017
Approval of FASE Undergraduate Curriculum Committee	Oct 31, 2017

Steps	Date
Consultation with the Office of the Dean of Engineering and the Office of the Dean of Music	Nov 2017
Approval of Faculty of Music Undergraduate Education Committee	Nov 2017
Approval of FASE Faculty Council	Dec 12, 2017
Submission to Provost's office	Dec 12, 2017
Reported to the Committee on Academic Policy & Programs	
Reported to Ontario Quality Council	

Appendix A: Proposed Calendar Description

Course Requirements for the Engineering Music Performance Minor

The Engineering Music Performance Minor was designed for Engineering undergraduates interested in exploring creativity in performance with music technology. This minor is open to any student completing an undergraduate degree in the Faculty of Applied Science and Engineering.

Through our partnership with the Faculty of Music, we are able to provide access to a performance-based program, including courses normally only open to their students.

There are courses within this minor that are only eligible for Free Elective (FE) or Extra course status (EXT). Thus students wishing to pursue this minor must be prepared to be taking on course work above and beyond their degree requirements. ECE446 and Technical courses from the Faculty of Music may be requested as Technical Elective Substitutions (TES) for a student's degree program, subject to the approval of the student's home department.

Note: Enrollment in the core course for the minor, PMU2xxY1 Y, will be based on a placement test, and may be competitive if demand exceeds the maximum number of placements. Minimum playing level required is RCM Gr. 8, plus background in theory and rudiments (Rudiments II or equivalent).

Availability of the courses (including the foundational courses) for timetabling purposes is not guaranteed; the onus is on the student to ensure compatibility with their timetable.

The requirements for an Engineering Music Performance Minor in the Faculty of Applied Science and Engineering are the successful completion of the following courses:

Course Title	Course Code	Weight
1. Applied Performance	PMU2xxY1 Y	1.0
2. Music Theory 1	TMU130H1 H	0.5
3. Sensory Communication	ECE446H1 F	0.5

4. Two other electives (1.0 FCE) from the list of designated courses or departmental thesis and design courses subject to the following constraints:

- a. At least one elective (0.5 FCE) must come from the Technical (T) category
- b. Either a Thesis or Design course can count for up to two (half year) courses towards the 2 elective courses IF the Thesis or Design course is strongly related to music. This requires approval by the Minor Director.
- c. Courses listed below may be considered eligible electives for students taking the Music Minor, subject to the student meeting any prerequisite requirements. Students must also seek the approval of their home program to ensure that they meet their

degree requirements. In situations where these courses don't meet those of their home program, students can elect to take these as extra courses.

Course Title	Course Code	Weight	Category
Introduction to Computer Applications in Music	TMU111H1	0.5	T
Electroacoustic Music I	TMU319H1	0.5	T
Electroacoustic Music II	TMU320H1	0.5	T
Introduction to Music Recording	TMU313H1	0.5	T
Live Coding: Digital Audio in Real Time	TMU330H1	0.5	T
Max/MSP	TMU406H1	0.5	T
Music Related Thesis or Capstone		0.5 or 1.0	T
Introduction to Music & Society	HMU111H1	0.5	
Music Theory 2	TMU131H1	0.5	
Introduction to Music History and Culture	MUS110H1	0.5	
Historical Survey of Western Music	MUS111H1	0.5	
Music of the World's Peoples	MUS200H1	0.5	
The Age of Bach and Handel	MUS204H1	0.5	
Performing Arts of South Asia	MUS209H1	0.5	
The World of Popular Music	MUS211H1	0.5	
Music, Sound & Power in the Middle East	MUS212H1	0.5	
Heavy Music	MUS240H1	0.5	
Symphony	MUS302H1	0.5	
Popular Music in North America	MUS306H1	0.5	
Handel	MUS308H1	0.5	
A Social History of the Piano	MUS335H1	0.5	

Appendix B: New Course Proposal for PMU2xxY1 Y (For Approval through Faculty of Music)

PMU 2xxY APPLIED PERFORMANCE PROPOSAL

OPTIONS:

1 – Solo Instrumental Applied – Classical Western Music

2 – Chamber Music – Classical Western Music

3 – Solo Instrumental Applied - Jazz

CALENDAR COURSE DESCRIPTION:

Individual and small group instruction in either solo instrumental or chamber music settings. Classical music or jazz. Auditions required.

APPLIED LESSON AND CHAMBER MUSIC INSTRUCTORS:

Instructors for the applied solo instrumental and chamber ensemble lessons will be qualified Doctor of Musical Arts students selected through an application and audition process. The performance component of the Engineering Minor will be supervised by Midori Koga, current Associate Dean, Graduate Education and other instrumental faculty members.

2018-2019 PILOT PROGRAM:

If the proposal for the Engineering Music Performance Minor is approved, we will run a **pilot program** with limited student enrolment for the **classical program only** during the 2018-2019 academic year. The program will be limited to a maximum of 8 pianists and 4 string players (applied solo), and 2 chamber groups. All student participants will be required to audition for the program. It is recommended that auditions take place during Winter term of previous academic year for a Fall term start date. During this pilot year, those interested in the chamber ensemble program must apply as a pre-formed group.

OUTLINE FOR PILOT PROGRAM:

OPTION 1: SOLO INSTRUMENTAL APPLIED - CLASSICAL

- Placement audition required
- Limited space (during pilot year):
 - 8 pianists maximum
 - 4 violinists (or 4 string players) maximum
- Two terms – Fall and Winter
- Course Schedule for each term:
 - 45 minute private lessons in Weeks 1, 2, 3 – 5, 6, 7 – 9, 10, 11

2-hour Master-classes in Weeks 4, 8 and 12

Performance Project at end of Winter Term – Engineering Showcase Concert

15-minute Performance Jury at end of Winter Term

OPTION 2: CHAMBER ENSEMBLE - CLASSICAL:

Pre-formed ensembles only (during pilot year)

- Placement audition required of pre-formed chamber groups. All members of the groups must be willing to register for the Engineering Minor: Music Performance
- Limited space (during pilot year):
 - 2 classical chamber groups (string quartet, piano trio)
- Two terms – Fall and Winter
- Course Schedule for each Term:
1.5 hours chamber coaching in Weeks 1, 2, 3 - 5, 6, 7 – 9, 10, 11
2-hour master-classes in Weeks 4, 8, and 12

Performance Project at end of Winter Term – Engineering Showcase Concert

15-minute Performance Jury at end of Winter Term

AUDITIONS:

To be held during winter term (mid-March) of previous academic year with decisions determined by May 1st. Auditions must take place early enough to post TA positions by CUPE deadlines, and before student course registration. Auditions will be adjudicated by one music faculty member and one other instrument specialist.

Audition Repertoire:

Option 1 – Solo Instrumental Applied - Classical

2 contrasting solo pieces (or movements) at Gr. VIII RCM level or above

Option 2 - Chamber Ensemble - Classical

1 movement of a chamber work if pre-formed group

OR

2 contrasting solo pieces (or movements) at Gr. VIII RCM level or above

Option 3 – Solo Jazz

2 contrasting pieces of varying styles

PREREQUISITES:

RCM Grade VIII or equivalent

RCM Rudiments II or equivalent

GRADING RUBRIC:

60% of final grade will be assigned by instructor:

- Attendance
- Weekly preparation for lessons, chamber coachings, and masterclasses
- Amount of repertoire learned
- Progress and improvement
- Completion of Performance Project (performance at Engineering Showcase Concert held at the Faculty of Engineering, or other approved venue)
- Faculty of Music non-performance grading rubric for applied lessons

20% of final grade concert attendance:

- Attendance at 8 concerts throughout the year
- Free concert options: Thursday Noon Series or Faculty of Music student concerts
- 100 word written summaries and programs to be submitted to Instructor within 2 weeks of concert date.

20% of final grade will be determined by Performance Jury

Jury will be adjudicated by the primary instructor and one other adjudicator

- Adjudicators will provide comments to accompany the grade
- Faculty of music non-performance grading rubric for performance juries.

LEARNING OUTCOMES:

Students will:

- i) Develop practice strategies for learning and preparing musical compositions for lessons, rehearsals and performances.
- ii) Perform musical compositions with appropriate technical efficiency and ease.
- iii) Perform musical compositions with attention to detail and a high level of artistic polish (dynamics, phrasing, articulation, balance and voicing, tone quality, intonation, stylistic understanding etc.).
- iv) As soloists, be able to comment constructively and knowledgeably about colleague's performances in master-classes.

- v) As members of a chamber ensemble or combo, be able to communicate constructively and knowledgeably in a rehearsal setting.

Appendix C: Course Descriptions for Existing Courses

Engineering Courses:

ECE446H1 Sensory Communication

Physical acoustics, acoustic measurements, electroacoustic transducers, and physiological acoustics. Speech processing, speech recognition algorithms and signal processing by the auditory system. Engineering aspects of acoustic design. Electrical models of acoustic systems. Noise, noise-induced hearing loss, and noise control. Introduction to vision and other modalities. Musical and psychoacoustics.

POSSIBLE INCLUSION – Pending new course approval

MIE5XXH1 Acoustics, Noise and Vibration Control

Faculty of Music Courses:

HMU111H1 Introduction to Music & Society

An examination of musical thought and practice in non-Western and Western traditions.

TMU111H1 Introduction to Computer Applications in Music

Survey of the uses of computers in music. Practical assignments in computer lab. Two hours.

TMU130H1 Music Theory I

Diatonic harmony. Principles of voice leading and harmonic progression. Introduction to musical form. Exclusion: TMU120H1.

TMU131H1 Music Theory II

Chromatic harmony. Topics include modulation, mixture, Neapolitan and augmented sixths. Prerequisite: TMU130H1; Exclusion: TMU121H1,

TMU319H1 Electroacoustic Music I

A survey of techniques employed in the composition of electroacoustic music. Two hour class, minimum two hours studio time. D. Patrick.

Prerequisite: TMU212H1 or P.I. Not offered 2016-17.

TMU320H1 Electroacoustic Music II

Advanced topics to include software synthesis, digital signal processing, and algorithmic composition. Two hour class, minimum two hour studio time. Limited enrolment. Pre-requisite: TMU319H1 or P.I. Not offered 2016-17.

TMU313H1 Introduction to Music Recording

An introduction to the theory and practice of music recording. The study of recording environments, equipment and techniques. Two hour class, four hours studio time. Prerequisite: TMU127H1.

TMU330H1 Live Coding: Digital Audio in Real Time

Live coding is an emergent creative practice at the intersection of composition, improvisation, performance, and computer programming. Using the highly approachable ChuckK programming language, students will learn to create and manipulate digital audio in real time, culminating in a final project and performance. Previous computer programming experience is not required. Prerequisite: TMU231H1/TMU302H1.

TMU406H1 Max/MSP

Max/MSP is a visual programming language for music and media, and the preeminent environment for developing interactive performance software. The course will provide instruction on how to use Max/MSP to create engaging and effective stand-alone software for live performance, culminating in a final project. Previous computer programming experience is not required. Prerequisite: TMU231H1, TMU232H1.

Faculty of Arts & Science Courses:

*This list reflects currently approved MUS courses on the Faculty's HSS elective list. Other A&S MUS courses could be requested.

MUS110H1 Introduction to Music History and Culture

Introduction to form, style and the interrelationship of music and culture. A basic ability to read music is required.

MUS111H1 Historical Survey of Western Music

Historical survey of Western art music from the Middle Ages to the present. A basic ability to read music is required.

MUS200H1 Music of the World's Peoples

A survey of musical traditions from various regions of the world, with particular emphasis on the sociocultural contexts in which those musics are created and appreciated. No prior background in music or ability to read music is required.

MUS204H1 The Age of Bach & Handel

A study of the representative major works in their social and cultural setting with emphasis on the high baroque style of Bach and Handel. No prior background in music or the ability to read music is required.

MUS209H1 Performing Arts of South Asia

Survey of classical, devotional, folk and popular musics and dances from the Indian subcontinent and their toll in the sociocultural life of the region. No prior background in music or ability to read music is required.

MUS211H1 The World of Popular Music

A survey of popular music traditions from various regions of the world with particular emphasis on the sociocultural contexts in which those musics are created and appreciated. Explores the role of the recording industry, media, festivals, and local institutions in shaping these music cultures both at home and in the international arena. No prior background in music or ability to read music is necessary.

MUS212H1 Music, Sound & Power in the Middle East

An investigation of the social life of classical, devotional, folk and popular music and dance from across the Middle East, North Africa and Central Asia.

MUS240H1 Heavy Music

An investigation of different world genres of "heavy music" as creations of sounding figures of social order, practices of destruction, practices of personal and collective power, social critique, parody, and so on. Includes obvious suspects - metal, punk, gangsta rap - but also opera, military musics, ritual musics, and others.

MUS302H1 Symphony

Masterpieces in the symphonic genre from the eighteenth to the twentieth centuries. No prior background in music or ability to read music is required.

MUS306H1 Popular Music in North America

A selected survey of North American popular music from the 1930s through present. Students will develop a critical framework for listening to and analyzing popular music in historical and social context by focusing on aspects of performance, representation, composition, mass media, aesthetics, and commodification. No prior background in music or ability to read music is required.

MUS308H1 Handel

Handel's life and music will be examined in its cultural contexts.

MUS335H1A Social History of the Piano

A survey of the changing roles and gendered associations of the piano c.1700 to the present day. Examples from the western art music tradition are compared to the acculturating force of the piano in other cultures, representations in the visual arts and film, and contemporary contexts of piano performance.