

# Music Studies (MUST)

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Course information contained within the Bulletin is accurate at the time of publication in June 2025 but is subject to change. For the most up-to-date course information, please refer to the Course Catalog.

## **MUST 0802. The Art of Listening. 4 Credit Hours.**

Experience Philadelphia's riveting arts scene through its awesome music performance groups. In The Art of Listening, you don't have to read music or play an instrument to discover how music of all kinds can be both edifying and entertaining. Class members will go on four field trips visiting Philadelphia's leading music halls to hear world-renowned performers playing a variety of music including Classical, Jazz, Broadway and World Music. Additionally, professional musicians active in the field will visit the classroom for demonstrations. Guided listening exercises will enable you to listen with increased clarity. Learning musical elements will empower you to acquire a skill set that can be applied to all of your listening preferences. Equally important, practicing open-minded listening may reveal new portals for greater appreciation of the arts and humanities and prompt you to ponder the importance of music in your life and to society. NOTE: This course fulfills the Arts (GA) GenEd requirement. Students cannot receive credit for this course if they have successfully completed MUST 0902.

**Course Attributes:** GA

**Repeatability:** This course may not be repeated for additional credits.

## **MUST 0804. Shakespeare and Music. 3 Credit Hours.**

What is it about the Bard of Stratford-on-Avon? From the concert hall to the stage and silver screen, no other author's works have inspired more adaptations than those of William Shakespeare. In this new century, as the "cult of originality" continues to grow at an exponential rate and celebrity is sought as an end in itself (see Hilton, Paris), why have the works of a man whose very identity is shrouded in mystery remained so popular? This course will explore "Macbeth," "A Midsummer Night's Dream" and "Romeo and Juliet," and their adaptation by composers and choreographers. Students will then get a chance to "bend the Bard" on their own! NOTE: This course fulfills the Arts (GA) requirement for students under GenEd and Arts (AR) for students under Core.

**Course Attributes:** GA

**Repeatability:** This course may not be repeated for additional credits.

## **MUST 0808. The Sounds of Philadelphia. 3 Credit Hours.**

Often called "The Birthplace of the United States," Philadelphia has an extraordinarily rich and important musical history that is emblematic of the diverse populations that created this nation. From the late eighteenth century to the present day, Philadelphia has cultivated innovative musical styles that are as varied as the city's population itself. This course will explore the history of music in Philadelphia, using music as a gateway to understand and challenge assumptions regarding issues of race, gender, sexuality, class, ethnicity, and identity. In this course, students will learn about composers, musical artists, and institutions with deep roots in Philadelphia in the framework of issues related to race and diversity. They will be asked to critically reflect on experiences in their own lives that influenced their musical tastes and to explore the connections between musical preference and identity. NOTE: This course fulfills the Race and Diversity (GD) GenEd requirement.

**Course Attributes:** GD

**Repeatability:** This course may not be repeated for additional credits.

## **MUST 0809. World Musics & Cultures. 3 Credit Hours.**

Have you ever wondered why musical compositions from different parts of the world sound so dissimilar? Discover how an artist's creative imagination is molded by the cultural values of the society at large. Listen to guest musicians demonstrate different styles of playing and attend a live concert. Examine folk, art and popular music from around the world and discuss the wonderful sounds that are produced. NOTE: This course fulfills the Arts (GA) GenEd requirement. Students cannot receive credit for this course if they have successfully completed MUST 0909.

**Course Attributes:** GA

**Repeatability:** This course may not be repeated for additional credits.

**MUST 0812. Exploring Music. 3 Credit Hours.**

Exploring Music is designed to be an enjoyable and engaging introduction to some of the most recognized and influential compositions and composers in Western music past and present. In this course, you will learn how to listen to music on deeper and more nuanced levels and explore its roles within the wider contexts of historical and contemporary societies. Throughout the course, you will be involved in the process of exploring music through viewing video recordings of concerts, operas, ballets, films, and/or staged productions, participating in active listening exercises, engaging in discussions about music, and attending at least one live concert. No musical background or training is assumed or required. NOTE: This course fulfills the Arts (GA) GenEd requirement.

**Course Attributes:** GA

**Repeatability:** This course may not be repeated for additional credits.

**MUST 0902. Honors: The Art of Listening. 4 Credit Hours.**

Are you an active or passive listener? What kind of music do you enjoy? How do you compare different musical styles, and what qualities make one performance different from another? Be challenged to rethink your entire conception of music by focusing on how to listen to music to deepen your appreciation of what you are hearing, and to ponder the importance of music in your life and to society. You will not be required to become a performer yourself, but you will become a more discriminating consumer of music through attendance at live concerts in the local area, by observation of in-class performances, rehearsals, and music lessons, and through guided listening exercises in and outside of class. Repertoire selected from Classical, Jazz, Broadway, and World Music will engage your intellectual and emotional response as a concert-goer, listener, researcher, critic, and communicator. (This is an Honors course.) NOTE: This course fulfills the Arts (GA) requirement for students under GenEd and Arts (AR) for students under Core. Students cannot receive credit for this course if they have successfully completed MUST 0802.

**Course Attributes:** GA, HO

**Repeatability:** This course may not be repeated for additional credits.

**MUST 0909. Honors World Musics & Cultures. 3 Credit Hours.**

Have you ever wondered why musical compositions from different parts of the world sound so dissimilar? Why does Japanese music employ silence as a structural element and Chinese melodies use only five notes? Discover how an artist's creative imagination is molded by the cultural values of the society at large. Listen to guest musicians demonstrate different styles of playing and attend a live concert. Examine folk, art and popular music from around the world and discuss the wonderful and strange sounds that are produced. (This is an Honors course.) NOTE: This course fulfills the Arts (GA) requirement for students under GenEd and Arts (AR) for students under Core. Students cannot receive credit for this course if they have successfully completed MUST 0809.

**Course Attributes:** GA, HO

**Repeatability:** This course may not be repeated for additional credits.

**MUST 1045. Introduction to Music Theory and Literature. 2 Credit Hours.**

Introduction to basic theoretical concepts of music. A wide range of musical compositions, drawn from different musical cultures and various periods of music history.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 1106. Jazz Secondary Piano. 1 Credit Hour.**

Introduction to voicing techniques, sight reading, comping, improvisation, and advanced jazz voicings

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUSC 1405.

**MUST 1118. Business of Music I. 2 Credit Hours.**

Business fundamentals for the Performing Artist.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 1131. Aural Skills I Jazz-Comm. 2 Credit Hours.**

**Repeatability:** This course may not be repeated for additional credits.

**MUST 1132. Aural Skills II Jazz. 2 Credit Hours.**

**Repeatability:** This course may not be repeated for additional credits.

**MUST 1133. Harmony I: Jazz. 3 Credit Hours.**

Basic jazz theory with emphasis upon standard melodic and harmonic structures in jazz practice, diatonic intervals, seventh chords, modulation, inversions, secondary dominant chords, tritone substitutions, melodic and harmonic analysis.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 1134. Harmony II: Jazz. 4 Credit Hours.**

Intermediate jazz theory with emphasis upon intermediate rhythmic and melodic transcription, chord-scale relationship, harmonic analysis, extended voicings, modal harmony.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 1133.

**MUST 1701. Music Theory for Non-Music Majors. 2 Credit Hours.**

Basic musical theory. Basic scales, intervals, rhythm and chord structures, simple harmonization, rudimentary aural theory. Some previous training is helpful, but not necessary. NOTE: For non-music majors.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 1702. Introduction to Music. 1 Credit Hour.**

A companion course to Music Studies 1761 (C061) for first-term freshmen. This course provides guidance with the assignments of the core course. Emphasis is on reading, listening, speaking, and writing within the context of the core course. Assistance is also given in the continued development of English-language skills, especially academic reading and the acquisition of a general academic vocabulary. NOTE: Offered at Temple University Japan only.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 1701.

**MUST 1703. Introduction to World Music. 3 Credit Hours.**

Exposes students to the diversity of music cultures existing in the world today and also to the particular instruments, genres, and musical contexts with which they are associated. Students become acquainted with research topics of interest to ethnomusicologists in recent years. NOTE: (1) Open to non-music majors only. No prior musical experience or coursework is necessary. (2) This course can be used to satisfy the university Core International Studies (IS) requirement. Although it may be usable towards graduation as a major requirement or university elective, it cannot be used to satisfy any of the university GenEd requirements. See your advisor for information. In addition to meeting the university Core International Studies requirement, this course meets the Non-Western/Third World IS requirement for Communication Sciences majors.

**Course Attributes:** IS

**Repeatability:** This course may not be repeated for additional credits.

**MUST 1704. Music in American Society. 3 Credit Hours.**

Using a historical framework, this course will survey various styles of music found in the United States. Folk, fine art, and popular music examples will be examined on the basis of their intrinsic qualities, as well as in connection with their social, economic, and political milieu. Issues of racism in American society's musical life will be an ongoing theme. NOTE: (1) No prior musical experience or course work is necessary. (2) This course can be used to satisfy the university Core American Culture (AC) requirement. Although it may be usable towards graduation as a major requirement or university elective, it cannot be used to satisfy any of the university GenEd requirements. See your advisor for further information.

**Course Attributes:** AC

**Repeatability:** This course may not be repeated for additional credits.

**MUST 1705. Music Theory for Non-Music Majors II. 3 Credit Hours.**

"Music Theory for Non-Majors II" is a continuation of "Music Theory for Non-Majors I." It is a partly theoretical, partly skills-based approach to learning the basics of music theory. In addition to covering more advanced rudiments (all diatonic 7th chords, all common types of cadences and phrase structures, simple chromaticism, larger forms, etc.), students will complete counterpoint and part-writing exercises, do rhythmic and solfege exercises in class and write short compositions. For the final exam, students will be expected to do some or all of the following: write a two-part melodic dictation; complete a simple harmonic dictation; sing melodies with solfege (prepared and at sight); analyze form (either aurally or visually); analyze phrase structures, cadences, Roman Numerals, and non-chord tones; realize a figured bass; and harmonize a soprano line (SATB).

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 1701.

**MUST 1711. Theory I. 4 Credit Hours.**

Introduction to melody, modal counterpoint, all species of two-part writing and basic voice leading, along with simple diatonic harmony and figured bass. Exercises include writing original second parts to given melodies, four-part harmonization of diatonic melodies, and analysis of music literature excerpts. NOTE: (1) Special authorization required for non-music majors. (2) This course can be used to satisfy the university Core Arts (AR) requirement. Although it may be usable towards graduation as a major requirement or university elective, it cannot be used to satisfy any of the university GenEd requirements. See your advisor for further information.

**Course Attributes:** AR

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** 'Y' in MTPT.

**MUST 1712. Theory II. 4 Credit Hours.**

Continuation of the study of tonal harmony; introduction of chromaticism, diatonic modulation, and expanded forms such as sonata allegro and rondo through analysis of larger works and composition of short pieces. NOTE: Special authorization required for non-music majors. Section 005 - Jazz Majors only. Jazz Harmony I & Aural Skills I-- Basic jazz musicianship with emphasis upon sight-singing, interval recognition, jazz syncopation, triads, seventh and ninth chords, basic chord progressions, melodic and harmonic dictation.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in (MUST 1711 or MUST 3770)

**MUST 1741. Aural Theory I. 2 Credit Hours.**

A basic course in the aural perception and singing of intervals, scales, and triads. Special attention to application of these concepts as well as other musical parameters in the aural perception of a wide variety of literature. NOTE: Remedial section available.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 1742. Aural Theory II. 2 Credit Hours.**

Further study of intervals, scales, and triads, with special attention given to tonal music; developing the power to visualize, sing, and write music from dictation.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 1741.

**MUST 1758. Composition Lesson I. 3 Credit Hours.**

Weekly composition lesson under supervision of the private teacher. The student is expected to create original work in acceptable professional notation. Works created during the semester will be reviewed by the composition faculty at the end of the term in a brief interview with the student.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 1759. Composition Lesson II. 3 Credit Hours.**

Weekly composition lesson under supervision of the private teacher. The student is expected to create original work in acceptable professional notation. Works created during the semester will be reviewed by the composition faculty at the end of the term in a brief interview with the student.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 1758.

**MUST 1761. Introduction to Music. 3 Credit Hours.**

An introduction to the elements of music and the evolution of musical styles in representative masterpieces from the baroque to the contemporary periods. To broaden knowledge of music and enhance listening enjoyment. NOTE: (1) For non-music majors. (2) This course can be used to satisfy the university Core Arts (AR) requirement. Although it may be usable towards graduation as a major requirement or university elective, it cannot be used to satisfy any of the university GenEd requirements. See your advisor for further information.

**Course Attributes:** AR

**Repeatability:** This course may not be repeated for additional credits.

**MUST 1762. Music in Movie Epics. 3 Credit Hours.**

This course begins by developing concepts to discuss cinematic techniques, narrative ideas, musical ideas, and the use of sound in movies. After this foundation, the course turns to contemporary movie epics, such as *The Lord of the Rings*, *Star Wars*, and the *Harry Potter* movies to show how this genre shapes our understanding of heroism, struggle, good and evil, narrative trajectory, etc. Students will interpret individual scenes and the ways that music and sound create an aura of suspense, psychology, power, failure, success, etc. as these movies respond to and create a culture of the heroic.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 1763. American Popular Music. 2 Credit Hours.**

Survey of all styles of twentieth century American Popular music. NOTE: For non-music majors.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 1911. Honors Theory I. 4 Credit Hours.**

Introduction to melody, modal counterpoint, all species of two-part writing and basic voice leading, along with simple diatonic harmony and figured bass. Exercises include writing original second parts to given melodies, four-part harmonization of diatonic melodies, and analysis of music literature excerpts. NOTE: (1) Special authorization required for non-music majors. (2) This course can be used to satisfy the university Core Arts (AR) requirement. Although it may be usable towards graduation as a major requirement or university elective, it cannot be used to satisfy any of the university GenEd requirements. See your advisor for further information. All students must receive department and deans office permission to enroll.

**Course Attributes:** HO

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** 'Y' in MTPT.

**MUST 1912. Honors Theory II. 4 Credit Hours.**

Continuation of the study of tonal harmony; introduction of chromaticism, diatonic modulation, and expanded forms such as sonata allegro and rondo through analysis of larger works and composition of short pieces. NOTE: This is an honors course.

**Course Attributes:** HO

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 1911.

**MUST 1961. Honors Introduction to Music. 3 Credit Hours.**

An introduction to the elements of music and the evolution of musical styles in representative masterpieces, from early music to the contemporary periods. The course is intended to broaden students' knowledge of music and to enhance listening enjoyment. NOTE: (1) This is an Honors course for non-music majors. (2) This course can be used to satisfy the university Core Arts (AR) requirement. Although it may be usable towards graduation as a major requirement or university elective, it cannot be used to satisfy any of the university GenEd requirements. See your advisor for further information.

**Course Attributes:** AR, HO

**Repeatability:** This course may not be repeated for additional credits.

**MUST 2105. Jazz Secondary Piano. 1 Credit Hour.**

Continuation of voicing techniques, sight reading, comping, improvisation, and advanced jazz voicings.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 1106.

**MUST 2106. Jazz Secondary Piano. 1 Credit Hour.**

Continuation of voicing techniques, sight reading, comping, improvisation, and advanced jazz voicings.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 2105.

**MUST 2111. Music in Advertising and Marketing. 2 Credit Hours.**

The study of music as it relates to the advertising and marketing industries. Topics discussed will include composition and lyric writing for broadcast, advertising, marketing films and videos, and multi-image presentations. NOTE: Designed for music majors with a theory background.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 2112. Pop Song Writing. 2 Credit Hours.**

Composing songs in pop idiom. Emphasis on chord progression, melody, and lyrics, as well as actual performance in class of student compositions.

NOTE: A thorough understanding of jazz harmony is essential.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 2113. History of Pop. 3 Credit Hours.**

Popular song styles of the 20th century from a variety of idioms: blues, folk, pop groups, rock, film, etc. Listening, analysis, and criticism.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 2114. History of Jazz. 3 Credit Hours.**

Survey of jazz practice in the 20th century with emphasis upon the major styles and the major artists.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 2131. Aural Skills III: Jazz. 2 Credit Hours.**

Advanced musicianship with emphasis upon advanced sight singing, advanced interval recognition, advanced chord progressions, modal applications, transcription. NOTE: Open only to Jazz Studies/Music Majors.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 1132.

**MUST 2133. Harmony III: Jazz. 3 Credit Hours.**

Advanced jazz theory with emphasis upon advanced melodic and rhythmic transcription, reharmonization, non-functional harmony.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 1134.

**MUST 2703. Music in History. 3 Credit Hours.**

A survey of Western music from antiquity to the eighteenth century, focusing on the analysis of representative works and considering the aesthetic, philosophical, social, cultural, and political forces that shaped this repertory.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in (MUST 1712 or MUST 3770)

**MUST 2704. Music in History. 3 Credit Hours.**

A survey of Western music from the eighteenth century to the present, focusing on the analysis of representative works and considering the aesthetic, philosophical, social, cultural, and political forces that shaped this repertory.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in (MUST 1712 or MUST 3770)

**MUST 2711. Theory III. 4 Credit Hours.**

This course seeks to develop visual, aural and written skills in the formal analysis of tonal music by combining written and aural theory. Materials covered in Theory I and II are carried forward to study the tonal language of literature from Baroque, Classical, and Romantic styles that include examples of basic phrase structures, binary and ternary forms, variation, rondo, sonata-allegro and concerto forms, Lieder, and the contrapuntal procedures in canon and fugue. Students will learn to separate a whole into its melodic, harmonic and rhythmic parts, to explore the relationship of these parts to the whole and to each other, and to compose original phrases possessing similar relationships. Students will also develop aural skills in the sight-singing and dictation of chromatic and modulating material, and the performance of rhythms utilizing small subdivisions and changing meters. Students must demonstrate mastery in both written and aural theory skills to pass the course.

**Course Attributes:** QB

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 1712.

**MUST 2712. Theory IV. 4 Credit Hours.**

Theory IV entails the study of contemporary music. Topics include the study of modality, atonality, twelve-tone, and other techniques of modern music. The aim is to learn the musical vocabulary of contemporary music through reading, analysis and basic composition exercises, and to gain a better understanding of musical style, structure and form through the analysis of pieces from the repertoire. The course involves both aural and written components. In the aural component, students learn to sight sing melodies in contemporary music and recognize common harmonic and motivic procedures. NOTE: Special authorization required for non-music majors. Section 5--Jazz Majors only. Jazz Harmony III & Aural Skills III--Advanced musicianship with emphasis upon advanced sight singing, advanced interval recognition, advanced chord progressions, modal applications, transcription.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 2711.

**MUST 2733. American Musical Theater. 3 Credit Hours.**

A look at the changing forms and styles of the musical theater in America from the nineteenth-century extravaganza to contemporary Sweeney Todd. Emphasizes such significant Broadway shows as "Show Boat," "Oklahoma," "My Fair Lady," and "West Side Story" and the contributions of composers, lyricists, and other artists responsible for the success of those shows.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 2741. Aural Theory III. 2 Credit Hours.**

Continuation of aural perception of tonal music with concentration on modulation and chromaticism; aural analysis of smaller forms.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 1742.

**MUST 2742. Aural Theory IV. 2 Credit Hours.**

Continuation of aural perception with an emphasis on 20th century literature and techniques.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 2741.

**MUST 2748. Composition I. 2 Credit Hours.**

Original composition. Development of inventive ability. Required for theory majors.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 2749. Composition II. 2 Credit Hours.**

Original composition. Development of inventive ability.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 2758. Composition Lesson III. 3 Credit Hours.**

Weekly composition lesson under supervision of the private teacher. The student is expected to create original work in acceptable professional notation. Works created during the semester will be reviewed by the composition faculty at the end of the term in a brief interview with the student.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 1759.

**MUST 2759. Composition Lesson IV. 3 Credit Hours.**

Weekly composition lesson under supervision of the private teacher. The student is expected to create original work in acceptable professional notation. Works created during the semester will be reviewed by the composition faculty at the end of the term in a brief interview with the student.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 2758.

**MUST 2768. Composition Lessons for Non-Composition Music Majors. 3 Credit Hours.**

Weekly private lessons on the basic principles of Music Composition culminating in a portfolio of three finished new works adjusted to each student's level and aspirations. Portfolio and interview are required to enroll in this course.

**Repeatability:** This course may be repeated for additional credit.



**MUST 2900. Honors Music Studies Special Topics. 3 to 4 Credit Hours.**

Contingent on the special topic.

**Course Attributes:** HO

**Repeatability:** This course may be repeated for additional credit.

**MUST 2911. Honors Theory III. 4 Credit Hours.**

This course seeks to develop visual, aural and written skills in the formal analysis of tonal music by combining written and aural theory. Materials covered in Theory I and II are carried forward to study the tonal language of literature from Baroque, Classical, and Romantic styles that include examples of basic phrase structures, binary and ternary forms, variation, rondo, sonata-allegro and concerto forms, Lieder, and the contrapuntal procedures in canon and fugue. Students will learn to separate a whole into its melodic, harmonic and rhythmic parts, to explore the relationship of these parts to the whole and to each other, and to compose original phrases possessing similar relationships. Students will also develop aural skills in the sight-singing and dictation of chromatic and modulating material, and the performance of rhythms utilizing small subdivisions and changing meters. Students must demonstrate mastery in both written and aural theory skills to pass the course. Students must receive departmental and dean's office approval to enroll.

**Course Attributes:** HO

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in (MUST 1712 or MUST 1912)

**MUST 2912. Honors Theory IV. 4 Credit Hours.**

Theory IV entails the study of contemporary music. Topics include the study of modality, atonality, twelve-tone, and other techniques of modern music. The aim is to learn the musical vocabulary of contemporary music through reading, analysis and basic composition exercises, and to gain a better understanding of musical style, structure and form through the analysis of pieces from the repertoire. The course involves both aural and written components. In the aural component, students learn to sight sing melodies in contemporary music and recognize common harmonic and motivic procedures. NOTE: Special authorization required for non-music majors. Section 5 - Jazz Majors only. Jazz Harmony III and Aural Skills III - Advanced musicianship with emphasis upon advanced sight singing, advanced interval recognition, advanced chord progressions, modal applications, transcription. Students must receive department and dean's office approval to enroll.

**Course Attributes:** HO

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in (MUST 2711 or MUST 2911)

**MUST 2962. Honors History of American Popular Music. 3 Credit Hours.**

Popular song styles of the 20th century from a variety of idioms: blues, folk, pop groups, rock, film, etc. Listening, analysis, and criticism.

**Course Attributes:** HO

**Repeatability:** This course may not be repeated for additional credits.

**MUST 3105. Jazz Class Piano. 1 Credit Hour.**

Arranged each semester, please consult with the instructor. NOTE: Course required for 1) all undergraduate music therapy majors with a piano concentration and 2) graduate music therapy majors who failed the diagnostic piano test and have the necessary piano technique.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 2106.

**MUST 3106. Jazz Class Piano. 1 Credit Hour.**

Arranged each semester. Please consult with the instructor. NOTE: Course required for 1) all undergraduate music therapy majors with a piano concentration and 2) graduate music therapy majors who failed the diagnostic piano test and have the necessary piano technique.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 3105.



**MUST 3196. History of Pop. 3 Credit Hours.**

This writing-intensive course focuses on popular song styles of the 20th and 21st centuries from a variety of idioms: blues, folk, pop groups, rock, film, etc. Listening, analysis, and criticism.

**Course Attributes:** WI

**Repeatability:** This course may not be repeated for additional credits.

**MUST 3385. Diamond Peer Teachers - Internship I. 1 Credit Hour.**

The Diamond Peer Teachers Program provides students with a mentored university-level teaching experience in their major. Course requirements include participation in the three-day pre-semester Teaching Institute and regular participation in the Peer Teachers support group throughout the semester. Peer Teachers provide supplemental instruction in first- and second-year courses, promote student engagement, and model successful study habits and academic preparedness for students with whom they work. For Diamond Peer Teachers only.

**Repeatability:** This course may be repeated for additional credit.

**MUST 3386. Diamond Peer Teachers - Internship II. 1 Credit Hour.**

The Diamond Peer Teachers Program provides students with a mentored university-level teaching experience in their major. Course requirements include participation in the three-day pre-semester Teaching Institute and regular participation in the Peer Teachers support group throughout the semester. Peer Teachers provide supplemental instruction in first- and second-year courses, promote student engagement, and model successful study habits and academic preparedness for students with whom they work. For Diamond Peer Teachers only.

**Repeatability:** This course may be repeated for additional credit.

**MUST 3696. Music in History. 3 Credit Hours.**

The history, style, and musical forms from the preclassical to the early romantic. Music analysis, essay exams, listening assignments, and research paper.

**Course Attributes:** WI

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in (MUST 2703 or MUST 2704)

**MUST 3710. Theory Seminar. 1 to 3 Credit Hour.**

Practical application of current pedagogical principles with outside projects. Weekly seminar designed for and required of all theory majors in the junior and senior years. NOTE: Four semesters required.

**Repeatability:** This course may be repeated for additional credit.

**Pre-requisites:** Minimum grade of C- in MUST 2712.

**MUST 3713. Orchestration. 3 Credit Hours.**

Instrumental characteristics and potential. Varied problems in sectional, ensemble, and orchestral scoring. Laboratory work possible in connection with practice orchestra.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 2712.

**MUST 3714. Contemporary Music. 3 Credit Hours.**

Late 19th century orchestral practices; theories of Sessions, Hindemith, Bartok, Wuorinen; concentration on neoclassic style. NOTE: Labs included.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 3741. Keyboard Harmony. 3 Credit Hours.**

The playing of chord progressions, sequences, modulations, and harmonization of small forms. Transposition, extemporization, reading from open score. NOTE: Music Education students take Mus Ed 3662 (0245).

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in (MUSC 2406 or MUST 2106)

**MUST 3748. Composition Junior Seminar I. 2 Credit Hours.**

A one-hour composition lesson every second week for composition majors.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 2749.

**MUST 3749. Composition Junior Seminar II. 2 Credit Hours.**

A one-hour composition lesson every second week for composition majors.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 3748.

**MUST 3758. Composition Lesson V. 3 Credit Hours.**

Weekly composition lesson under supervision of the private teacher. The student is expected to create original work in acceptable professional notation. Works created during the semester will be reviewed by the composition faculty at the end of the term in a brief interview with the student.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 2759.

**MUST 3759. Composition Lesson VI. 3 Credit Hours.**

Weekly composition lesson under supervision of the private teacher. The student is expected to create original work in acceptable professional notation. Works created during the semester will be reviewed by the composition faculty at the end of the term in a brief interview with the student.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 3758.

**MUST 3763. Analog and Modular Sound Synthesis. 3 Credit Hours.**

This class examines the history and techniques of making music with analog and modular synthesizers. Students gain sound sculpting and composition skills using several analog and modular synthesizers. Skills include learning how the modules in an analog synthesizer work and can be linked together into a larger system to produce a vast palette of timbres. Students also develop an ability to recognize different analog synthesis techniques by ear, and compose several short pieces of music using sounds they create. Students acquire an understanding of how analog synthesizers are used in and have shaped many musical genres.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 3764. Scoring for Film and Digital Media. 3 Credit Hours.**

Students will learn the aesthetics, terminology, procedures, and technical aspects of scoring for the visual medium. They will develop an understanding of the software used to synchronize original music to film and video, including MIDI, sample libraries, and sequencing. Students will complete projects that focus on a broad range of techniques, such as spotting, click tracks, understanding dramatic narrative, and scoring under dialogue. Further understanding of scoring techniques will occur through analysis of significant examples from the film music literature. Students will gain a fundamental understanding of the film industry, including how to identify and secure opportunities for scoring, the basics of how to approach the logistics of a feature length film, budgeting, and the personnel involved in projects large and small. The role of music in other visual media, such as video games, theatrical production, and interactive media, will be briefly explored.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 3765. Scoring and Audio Design for Video Games. 3 Credit Hours.**

Students gain a basic understanding of composing interactive music and designing audio for video games. Students will become proficient in the software involved in this process, including a DAW, middleware, and game distribution. The vocabulary and technology of audio production are taught, as well as an understanding of the function of music in interactive media. The business skills necessary to enter and develop a successful career in game audio will be explored. The course contains a laboratory component in which students develop sequencing skills and work with synchronized animation.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 3770. Topics in Music Theory. 1 to 3 Credit Hour.**

Survey of advanced written and aural concepts in music theory.

**Repeatability:** This course may be repeated for additional credit.

**MUST 3780. Topics in Music History. 1 to 3 Credit Hour.**

Survey of advanced concepts in music history.

**Repeatability:** This course may be repeated for additional credit.

**MUST 3796. Music in History. 3 Credit Hours.**

The history, style, and musical forms from the late romantic through the contemporary periods. Music analysis, essay exams, listening assignments, and research paper.

**Course Attributes:** WI

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in (MUST 2703 or MUST 2704)

**MUST 3896. Theory Seminar II. 2 to 3 Credit Hours.**

Practical application of current pedagogical principles with outside projects. Required weekly writing intensive seminar for theory majors, emphasizing critical writing and discussion.

**Course Attributes:** WI

**Repeatability:** This course may be repeated for additional credit.

**Pre-requisites:** Minimum grade of C- in MUST 2712.

**MUST 3900. Honors Music Studies Special Topics. 3 or 4 Credit Hours.**

Contingent on the special topic.

**Course Attributes:** HO

**Repeatability:** This course may be repeated for additional credit.

**MUST 4110. Seminar in Jazz Composition and Arranging. 2 Credit Hours.**

Current and past trends in jazz and pop composition. Students compose and perform original music. Class analysis of works. NOTE: Weekly seminar meetings.

**Repeatability:** This course may be repeated for additional credit.

**Pre-requisites:** Minimum grade of C- in (MUST 2712 or MUST 3770)

**MUST 4111. Jazz Style and Analysis. 2 Credit Hours.**

In-depth examination of the music of one or two artists with an emphasis upon style, melodic and harmonic content, and importance of the artist(s) to the jazz canon.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in (MUST 2712 or MUST 3770)

**MUST 4112. Jazz Arranging I. 3 Credit Hours.**

Writing for various small and large jazz groups. Emphasis upon jazz orchestration and chord substitutions.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in (MUST 2712 or MUST 3770)

**MUST 4113. Jazz Improvisation: Theory and Practice I. 2 Credit Hours.**

Application of melodic and harmonic improvisational concepts and devices to standard jazz repertoire. Emphasis upon melodic stylistic development.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in (MUST 2711 or MUST 3770)

**MUST 4114. Jazz Improvisation: Theory and Practice II. 2 Credit Hours.**

More advanced melodic and harmonic improvisational concepts applied to standard jazz repertoire with an emphasis upon stylistic development.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 4113.

**MUST 4115. Jazz Arranging II. 3 Credit Hours.**

Advanced arranging concepts for small and large jazz ensembles.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 4112.

**MUST 4120. Seminar in Advanced Jazz Composition and Arranging. 2 Credit Hours.**

Advanced composition in the jazz idiom.

**Repeatability:** This course may be repeated for additional credit.

**Pre-requisites:** Minimum grade of C- in MUST 4110.

**MUST 4700. Latin Amer Mus Ensemble. 0 to 1 Credit Hours.**

**Repeatability:** This course may be repeated for additional credit.

**MUST 4701. Music in Global Cultures. 3 Credit Hours.**

Course to provide a foundational knowledge of global musics and to enable further study in this area. The degree program includes significant elective credits so that students can pursue advanced study if desired. While the content can vary from semester to semester depending upon the expertise and research interests of the instructor, the course's overall goal is to engage music both beyond the canon and from diverse cultural origins.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 2712.

**MUST 4706. Live Recording and Mixing for Broadcast. 3 Credit Hours.**

This course explores fundamental planning and procedures for capturing live music for video broadcast. Topics include planning, staging, preparation and execution of a live performance recording, followed by procedures for effective and cohesive mixing for broadcast. We will initiate and complete a typical "real world" music performance broadcast delivery project. This course has a prerequisite that students must have already taken MUST 4713 (Sound Recording) and MUST 4714 (Sound Editing).

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C in (MUST 4713 or 'Y' in CRMU01) and (MUST 4714 or 'Y' in CRMU02)

**MUST 4707. Computer Programming for Musicians. 3 Credit Hours.**

This course is an introduction to computer programming specifically designed to enable making music with a computer. Through a combination of creative activities and projects using the Python programming language, one of the most common languages used today for making music with computers, students learn foundational pedagogical concepts of computer programming and computational thinking, all within a musical context.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 4711 and MUST 4712 (may be taken concurrently)

**MUST 4710. Early Music Ensemble. 1 Credit Hour.**

An opportunity to perform music from medieval through preclassic times. Reproduction of original instruments, principles of performance practice in original form and as they emerge through modern efforts at reconstruction. NOTE: Limited to 20 singers and instrumentalists.

**Repeatability:** This course may be repeated for additional credit.

**MUST 4711. Computers in Musical Applications. 3 Credit Hours.**

Introduction to theory and practice of digital synthesis of musical sound. Sampling theory, additive synthesis, and modulation synthesis are examined using models. NOTE: This course can be used to satisfy the university Core Science & Technology Second Level (SB) requirement.

**Course Attributes:** SB

**Repeatability:** This course may not be repeated for additional credits.

**MUST 4712. Computer Synthesis of Music. 3 Credit Hours.**

Advanced study of software synthesis methods building on Music Studies 4711 (C315). Subtractive synthesis and reverberation techniques are examined. Synthesis algorithms are implemented using the C Sound language.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 4711.

**MUST 4713. Sound Recording. 3 Credit Hours.**

A course in concert hall recording of live music including topics such as room acoustics, electrical signals, microphones, recording decks and editing systems. A quantitative approach to theory will be balanced by practical laboratory instruction. NOTE: The course is required for students who have elected the Music Technology Component.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 4714. Sound Editing. 3 Credit Hours.**

A course in digital audio editing that applies principles and techniques learned in Sound Recording. Students work with ProTools software and complete a series of projects to develop listening and editing skills.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 4715. World Music. 3 Credit Hours.**

How do different cultures hear music? What meanings does music have in society? This course will address these questions in traditional, popular, and Western-style musics around the world, with focus on the Caribbean, Japan, India, Indonesia, Latin America, and the Mediterranean. Discussions of concepts in ethnomusicology and contemporary social issues will be combined with hands-on performance.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 4716. Composing Music for Films. 3 Credit Hours.**

Students learn to use MIDI equipment and software to compose music for synchronization to film and video. The vocabulary and technology of film production are taught, as well as an understanding of the function of music in documentary and experimental film and video. The course contains a laboratory component in which students develop sequencing skills and work with synchronized videotape.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 4711.

**MUST 4717. Counterpoint. 3 Credit Hours.**

The principles of two- and three-part counterpoint and practical application in the form of the invention and three-part imitative writing of the 18th century.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in (MUST 1712 or MUST 3770)

**MUST 4718. Analysis. 3 Credit Hours.**

A supplement and sequel to the analysis introduced in Music Studies 2703 (0160), Music Studies 3796 (W261) and Music Studies 2711 (C243). Development of aural perception techniques. NOTE: Individual assignments.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in (MUST 2711 or MUST 3770)

**MUST 4719. MIDI. 3 Credit Hours.**

An introduction to the use of MIDI Technology, including basic synthesis, sound design, sequencing, and sampling.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 4711.

**MUST 4720. New Music Seminar. 1 Credit Hour.**

**Repeatability:** This course may be repeated for additional credit.

**MUST 4721. Computer Music Studio. 3 Credit Hours.**

Independent composition study following completion of either Music Studies 4719 (0346), Music Studies 4712 (0316), or Music Studies 4716 (0335).

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in (MUST 4712, MUST 4716, or MUST 4719)

**MUST 4722. Advanced Orchestration. 2 Credit Hours.**

Full scoring for orchestra and band, ranging from monody to complex texture.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 3713.

**MUST 4723. Score Reading. 3 Credit Hours.**

A continuation of Music Studies 3741 (0241). Emphasis on reading from open score with the alto, tenor, and soprano clefs in addition to the G and F clefs. Also, modulation to remote keys, varied sequences.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 3741.

**MUST 4724. Printing Music Scores and Parts. 3 Credit Hours.**

**Repeatability:** This course may not be repeated for additional credits.

**MUST 4725. Advanced Audio Production. 3 Credit Hours.**

The class will focus on advanced skills of audio production based on skills learned in both Sound Recording (MUST 4713) and Sound Editing (MUST 4714). Work will be done on the most common Digital Audio Workstation, Pro Tools, but is applicable to all DAWs. Prerequisites are both Sound Recording (MUST 4713) and Sound Editing (MUST 4714).

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 4713 and MUST 4714.

**MUST 4727. Electronic Music Composition: Practice, History, Theory. 3 Credit Hours.**

The history of electro-acoustic music, which is essential to music in the 20th century. Composers who wrote for electronic instruments include Edgard Varèse, Olivier Messiaen and Paul Hindemith, the "musique concrète" school (Pierre Schaeffer, Pierre Henry, Edgard Varèse, etc.), Karlheinz Stockhausen, Gyorgi Ligeti, Luciano Berio, Milton Babbitt, John Cage, Iannis Xenakis, and Mario Davidovsky. These composers used unique and varied technologies in their music. New technologies soon crossed over into pop music, and now dominate commercial music and film. A dialogue between composers and engineers is now crucial in order to make all aspects of sound available to composers. This is available to composers, theorists, historians, and instrumentalists, who must master the extended techniques that are now an essential part of new music performance.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 1711, MUST 1712, MUST 2711, and MUST 2712.

**MUST 4730. Electronic Music Ensemble. 1 Credit Hour.**

An opportunity to perform electro-acoustic and digital music using laptops, tablets, various sensors, controllers, synths and multi-channel speakers. Members act as performers, researchers, composers and software developers.

**Repeatability:** This course may be repeated for additional credit.

**MUST 4731. Arts Enterprise. 3 Credit Hours.**

Through this course, emerging arts professionals will understand and be able to plan for the economic impact of working as a freelance artist on their personal finances. Understanding fiscal principles and vocabulary will enable budget planning and long term personal economic impact assessments. Business fundamentals and the relationship between effective personal finance management and best business practices are explored.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 4732. Programming in Max. 3 Credit Hours.**

This course will use the visual programming language Max to explore and implement various topics in electro-acoustic music and digital media. Topics covered will include digital sound synthesis (additive, subtractive and modulation synthesis), signal processing and sequencing. Students will learn mathematical and programming techniques for expressive digital audio signal processing and software design. Topics covered will include spectral audio programming, algorithmic synthesis, compiling, MIDI, OSC, mobile applications, live processing, and software architecture. Students will create their own interactive programs and algorithms modeled after course concepts and use these to compose a series of "etudes". Additionally, a working history of electronic music will complement course topics.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 4733. Music Mixing in Pro Tools for Music Technology. 3 Credit Hours.**

This course explores fundamental planning and procedures for creating a functional and sharable music mixing session in Pro Tools. Pro Tools basic structure, importing audio, mixing basics, and final mix delivery are covered. A new song or music project will be introduced with each class, with a mix delivery due prior to the next week's class.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C in (MUST 4713 or 'Y' in CRMU01) and (MUST 4714 or 'Y' in CRMU02)

**MUST 4748. Composition Senior Seminar I. 3 Credit Hours.**

A one-hour composition lesson every week for composition majors. NOTE: Attendance required for departmental concerts and special events.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 3749.

**MUST 4749. Composition Senior Seminar II. 3 Credit Hours.**

A one-hour composition lesson every week for composition majors. NOTE: Attendance required for departmental concerts and special events.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 4748.

**MUST 4758. Composition Lesson VII. 3 Credit Hours.**

Weekly composition lesson under supervision of the private teacher. The student is expected to create original work in acceptable professional notation. Works created during the semester will be reviewed by the composition faculty at the end of the term in a brief interview with the student.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 3759.

**MUST 4759. Composition Lesson VIII. 3 Credit Hours.**

Weekly composition lesson under supervision of the private teacher. The student is expected to create original work in acceptable professional notation. Works created during the semester will be reviewed by the composition faculty at the end of the term in a brief interview with the student.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of C- in MUST 4758.

**MUST 4762. Introduction to Music Technology for Non-Majors. 3 Credit Hours.**

Introduction to the ways in which computer software and hardware can be used to create, edit, and produce audio, music, and multimedia files. Various music styles and genres, such as hip hop, house, techno, ambient, drum and bass, EDM, experimental, and trap, will be explored through lectures, demonstrations, and hands-on individual and group projects. Additional topics will include working with loops, mixing audio, and the differences between various file formats. A final project is required that demonstrates the student's ability to create a complete musical project using a variety of audio software and file formats. The course is open to all students at Temple with the exception of Music Technology majors. A basic knowledge of music notation and the ability to read music are strongly recommended, though not required.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 4780. Special Topics Music Studies. 1 to 4 Credit Hour.**

Advanced focus upon a specific aspect of music studies.

**Repeatability:** This course may be repeated for additional credit.

**MUST 4782. Independent Study. 1 to 4 Credit Hour.**

The area of concentration selected by the student with the approval of the supervising teacher and Associate Dean.

**Repeatability:** This course may be repeated for additional credit.

**MUST 4785. Music Industry Internship. 3 to 4 Credit Hours.**

This course is an intensive internship program designed to help students gain hands-on field experience in some aspect of the music industry of the student's choice. During the internship, students will learn how to polish their resumes and cover letters, make a business card, interview, network, and acquire job skills in their internship positions.

**Repeatability:** This course may be repeated for additional credit.

**MUST 4786. Music Industry Internship. 3 Credit Hours.**

This course is an intensive internship program designed to help students gain hands-on field experience in some aspect of the music industry of the student's choice. During the internship, students will learn how to polish their resumes and cover letters, make a business card, interview, network, and acquire job skills in their internship positions.

**Repeatability:** This course may be repeated for additional credit.



**MUST 4799. Music History: Final Project. 3 Credit Hours.**

This course will serve as a capstone project designed to help students synthesize experiences from their 3-plus years of coursework, while also preparing them for further study or employment after graduation. The student will choose an advisor and will work one-on-one with that mentor to design and complete this project. The nature and content of the final project will be up to the student, in consultation with the advisor, so that there is some flexibility based on the skills and interests of the student. Possible projects include: a research paper; a paper or presentation on pedagogy; a lecture/recital; an edition of an existing composition; transcription and analysis of jazz, non-western music, or contemporary music; an internship. Evaluation of the student's work will be based on the quality and originality of the final document, performance, or presentation.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 4882. Project in Music Technology. 3 Credit Hours.**

This course is taken during the senior year. Under faculty approval and supervision, MUST 4882 will culminate in a significant capstone project. The project will require that students demonstrate an ability to integrate and synthesize basic musical and technological knowledge and skills in the conceptualization and creation of the final outcome, such as a piece of software, hardware, media product, or multimedia product. Student projects will be showcased and discussed by each student as a capstone event, open to the public. A written project proposal is due to the Program Director 4 weeks prior to registration.

**Repeatability:** This course may be repeated for additional credit.

**MUST 5001. Diatonic Harm. Review. 1 Credit Hour.**

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5002. Chromatic Harm. Review. 2 Credit Hours.**

A review of chromatic harmony as it appears in the works of composers during the period of approximately 1650-1900. Emphasis will be placed on advanced components of analysis. Additional emphasis will be placed on form analysis including phrase structures and sonata-allegro form.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5003. Counterpoint Review. 1 Credit Hour.**

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5004. Grad Aural Theory Review. 3 Credit Hours.**

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5005. Remedial Studies in Music History. 1 to 5 Credit Hour.**

Designed as remedial study in Music History for graduate students. May be taken by undergraduate Music majors with approval of the advisor and instructor. Variable scheduling.

**Repeatability:** This course may be repeated for additional credit.

**MUST 5006. Sound Recording and Editing Techniques. 3 Credit Hours.**

This course is an intensive, semester-long course that integrates both sound recording and sound editing concepts for Master of Science students in Music Technology who do not pass the entering Diagnostic Examinations in Sound Recording and Sound Editing. The course utilizes online learning videos, self-guided learning activities, as well as recording studio and class lecture time.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5105. Remedial Studies in Jazz History. 1 to 5 Credit Hour.**

Designed as remedial study in Jazz History for graduate students. Variable scheduling.

**Repeatability:** This course may be repeated for additional credit.

**MUST 5106. Remedial Studies in Jazz Theory. 1 to 5 Credit Hour.**

Designed as remedial study in Music Jazz Theory for graduate students. Variable scheduling.

**Repeatability:** This course may be repeated for additional credit.

**MUST 5111. Seminar in Jazz History. 3 Credit Hours.**

A detailed advanced survey of issues current in the research and scholarship of Jazz History. The focus is upon the completion of an individual research project suitable for publication.

**Repeatability:** This course may be repeated for additional credit.

**MUST 5115. Seminar in Jazz Arranging. 3 Credit Hours.**

An advanced survey of the current trends and traditional practices in jazz arranging with an emphasis upon theoretical and practical approaches and applications in small and large ensembles of various sizes and instrumental groupings.

**Repeatability:** This course may be repeated for additional credit.

**MUST 5212. Arranging I. 3 Credit Hours.**

A survey of the current trends and traditional practices in arranging for both jazz and non-jazz groups (vocal and instrumental) with an emphasis upon theoretical and practical approaches and applications in small and large ensembles of various sizes and instrumental groupings. Since students will have performed already in numerous small and large ensembles, this course will provide the opportunity for understanding how those varied experiences worked were conceived, evolved, and implemented. Assignments will vary according to sizes and types of groups.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5213. Arranging II. 3 Credit Hours.**

An advanced survey of the current trends and traditional practices in arranging for both jazz and non-jazz groups (vocal and instrumental) with an emphasis upon advanced theoretical and practical approaches and applications in small and large ensembles of various sizes and instrumental groupings. Students will have performed in numerous small and large ensembles. This course will provide the opportunity for understanding how those varied experiences worked musically. Assignments will vary according to sizes and types of groups.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of B- in MUST 5212.

**MUST 5214. Orchestration. 3 Credit Hours.**

Students will explore varied instrumental characteristics and encounter scoring problems for both jazz and non-jazz ensembles including sectional, ensemble, small and large bands, and orchestral scoring. Laboratory work possible in connection with various rehearsal ensembles, bands, and orchestra. Assignments will vary according to sizes and types of groups.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5701. Research in Music. 3 Credit Hours.**

Survey of primary reference tools, monumental editions and collected works, periodicals, histories, theoretical treatises, iconography, organology, and other bibliographic materials. Term paper written under supervision.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5704. Music in History. 3 Credit Hours.**

Advanced survey of the music of the Classic and Romantic periods and the 20th century.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5705. Music in History. 3 Credit Hours.**

Advanced survey of the history, style, and musical forms from antiquity through the Renaissance.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5706. Live Recording and Mixing for Broadcast. 3 Credit Hours.**

This course explores fundamental planning and procedures for capturing live music for video broadcast. Topics include planning, staging, preparation and execution of a live performance recording, followed by procedures for effective and cohesive mixing for broadcast. We will initiate and complete a typical "real world" music performance broadcast delivery project.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of B- in (MUST 4713 or MUST 5729) and (MUST 4714 or MUST 5714)

**MUST 5707. Computer Programming for Musicians. 3 Credit Hours.**

This course is an introduction to computer programming specifically designed to enable making music with a computer. Through a combination of creative activities and projects using the Python programming language, one of the most common languages used today for making music with computers, students learn foundational pedagogical concepts of computer programming and computational thinking, all within a musical context.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5713. Canon and Fugue. 3 Credit Hours.**

The development of technique in imitative style and an ability to construct phrase and sectional forms in canonic and fugal style.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5714. Sound Editing. 3 Credit Hours.**

A course in digital audio editing that applies principles and techniques learned in Sound Recording. Students work with ProTools software and complete a series of projects to develop listening and editing skills.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5716. Composing Music for Films. 3 Credit Hours.**

Students use MIDI equipment and software to compose music for synchronization to film and video. Vocabulary and technology of film production and an understanding of the function of music in documentary and experimental film and video are taught. Includes lab component to develop sequencing skills.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5719. MIDI. 3 Credit Hours.**

An introduction to advanced use of MIDI technology, including basic synthesis, sound design, sequencing, and sampling.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5720. New Music Seminar. 2 Credit Hours.**

Seminar in the use of electronic devices such as cellphones, tablets, and laptop computers for music creation and performance. For students enrolled in the 4+1 option in Music Technology.

**Repeatability:** This course may be repeated for additional credit.

**MUST 5721. Computer Music Studio. 3 Credit Hours.**

Extensive, independent compositional activity with computer synthesis.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5724. Printing Musical Scores and Parts. 3 Credit Hours.**

This course is for music students, particularly composers, who wish to become proficient with music engraving software. At the conclusion of the course, a student should be able to create scores and parts that conform to prevailing professional standards for music engraving. Course topics include a brief history of musical notation, historical methods of music printing, computer concepts such as scalable fonts and PostScript, score layout, and formatting conventions. In addition to periodic assignments, the course requires a written mid-term examination and a final project. Additional projects required for graduate students.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5725. Computers in Music Applications. 3 Credit Hours.**

Advanced theory and practice of digital synthesis of musical sound. Sampling theory, additive synthesis, and modulation synthesis are examined using models.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5726. Computer Synthesis. 3 Credit Hours.**

Certain musical applications of digital computers, including digital recording, digital sound synthesis, speech synthesis, and various real-time applications. The Csound and PureData applications are used throughout.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5728. Advanced Audio Production. 3 Credit Hours.**

Advanced Audio Production will focus on advanced skills of audio production, based on skills learned in Sound Editing (MUST 4714). Work will be done on the most common Digital Audio Workstation, Pro Tools, but is applicable to all DAWs.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5729. Sound Recording. 3 Credit Hours.**

A course in concert hall recording of live music including topics such as room acoustics, electrical signals, microphones, recording decks and editing systems. A quantitative approach to theory will be balanced by practical laboratory instruction.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5730. Electronic Music Ensemble. 1 Credit Hour.**

An opportunity to perform electro-acoustic and digital music using laptops, tablets, various sensors, controllers, synths and multi-channel speakers. Members act as performers, researchers, composers and software developers.

**Repeatability:** This course may be repeated for additional credit.

**MUST 5732. Programming in Max. 3 Credit Hours.**

This course will use the visual programming language Max to explore and implement various topics in electro-acoustic music and digital media. Topics covered will include digital sound synthesis (additive, subtractive and modulation synthesis), signal processing and sequencing. Students will learn mathematical and programming techniques for expressive digital audio signal processing and software design. Topics covered will include spectral audio programming, algorithmic synthesis, compiling, MIDI, OSC, mobile applications, live processing, and software architecture. Students will create their own interactive programs and algorithms modeled after course concepts and use these to compose a series of "etudes". Additionally, a working history of electronic music will complement course topics.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5733. Music Mixing in Pro Tools for Music Technology. 3 Credit Hours.**

This course explores fundamental planning and procedures for creating a functional and sharable music mixing session in Pro Tools. Pro Tools basic structure, importing audio, mixing basics, and final mix delivery are covered. A new song or music project will be introduced with each class, with a mix delivery due prior to the next week's class.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of B- in MUST 8728 (may be taken concurrently)

**MUST 5740. Seminar in Composition. 3 Credit Hours.**

Guidance toward realization of individual creative concepts in music and critical evaluation of the results.

**Repeatability:** This course may be repeated for additional credit.

**MUST 5741. Analytical Techniques. 3 Credit Hours.**

This course develops techniques for the analysis and understanding of music's expressive structure. Its primary goal is to develop greater comprehension of frequently encountered compositional forms and devices as found in great works of literature. A second goal is to provide a basic introduction to some of the current methods of theoretical analysis of music (which will probably be new or less familiar to most students). A third goal is to relate analysis to performance; in other words, how can analysis lead to a more informed performance? The course is divided into eight parts of primarily 2-week sections—I: Contrapuntal Procedures; II: Harmonic Forms; III: Schenkerian Analysis; IV: Rhythm, Meter, and Hypermeter; V: Hermeneutic Approaches; VI. Twentieth-Century Techniques and Jazz; VII. Set Theory and Twelve-Tone Theory; VIII. Grand Finale.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5742. Seminar in Theoretical Analysis. 3 Credit Hours.**

Investigation of theoretical and analytical problems in music, including theories of Heinrich Schenker and others as pertinent to particular faculty concerns.

**Repeatability:** This course may be repeated for additional credit.

**MUST 5743. Seminar in Stylistic Analysis. 3 Credit Hours.**

Advanced study of compositional techniques, composers, analytical techniques, and/or genres. Seminar subject areas may include Bartok's theory and practice, Stravinsky's Russian Period, Analytical Techniques, Lied, Analysis of Opera, Mozart's Piano Concerti, Music of Debussy and Messaien, current trends in analysis, American Neo-classicism, serialists, and others.

**Repeatability:** This course may be repeated for additional credit.

**MUST 5744. Seminar in Stylistic Analysis. 3 Credit Hours.**

Advanced study of compositional techniques, composers, analytical techniques, and/or genres. Seminar subject areas may include Bartok's theory and practice, Stravinsky's Russian Period, Analytical Techniques, Lied, Analysis of Opera, Mozart's Piano Concerti, Music of Debussy and Messaien, current trends in analysis, American Neo-classicism, serialists, and others.

**Repeatability:** This course may be repeated for additional credit.

**MUST 5745. Seminar in Stylistic Analysis. 3 Credit Hours.**

Advanced study of compositional techniques, composers, analytical techniques, and/or genres. Seminar subject areas may include Bartok's theory and practice, Stravinsky's Russian Period, Analytical Techniques, Lied, Analysis of Opera, Mozart's Piano Concerti, Music of Debussy and Messaien, current trends in analysis, American Neo-classicism, serialists, and others.

**Repeatability:** This course may be repeated for additional credit.

**MUST 5746. Seminar in Stylistic Analysis. 3 Credit Hours.**

Advanced study of compositional techniques, composers, analytical techniques, and/or genres. Seminar subject areas may include Bartok's theory and practice, Stravinsky's Russian Period, Analytical Techniques, Lied, Analysis of Opera, Mozart's Piano Concerti, Music of Debussy and Messiaen, current trends in analysis, American Neo-classicism, serialists, and others.

**Repeatability:** This course may be repeated for additional credit.

**MUST 5749. Current Topics in Musicology and Theory. 3 Credit Hours.**

A detailed survey of issues driving current research in musicology and music theory. A required foundation course for graduate students in musicology/theory, Current Topics is also open to other graduate students with an interest in these disciplines. Although the course begins with a brief history of these two disciplines, the emphasis for most of the semester is on the various methodologies and issues now in circulation. The conclusion of the course focuses on individual research projects, where students begin an intense study of an area of interest to them. This study culminates in the writing of a proposal, suitable to form the basis of a thesis paper or publishable research.

**Repeatability:** This course may be repeated for additional credit.

**MUST 5750. Special Topics in Music Technology. 3 Credit Hours.**

Advanced focus on one or more topics related to the field of Music Technology.

**Repeatability:** This course may be repeated for additional credit.

**MUST 5754. Music in the Classical Period. 3 Credit Hours.**

Examination of stylistic trends and representative works of pre-classic composers; detailed study of Haydn and Mozart.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5755. Music in the Romantic Period. 3 Credit Hours.**

An examination of music from the first half of the 19th century in the context of new social conditions, literary Romanticism, bourgeois audiences, and the changing role of the artist.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5756. Music in the Twentieth Century 1900-1945. 3 Credit Hours.**

An examination of stylistic trends in vocal and instrumental music composed from 1900 through World War II.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5760. Special Topics in Music Technology. 3 Credit Hours.**

Advanced focus on one or more topics related to the field of Music Technology.

**Repeatability:** This course may be repeated for additional credit.

**MUST 5762. Music Technology. 3 Credit Hours.**

Advanced exploration of hardware and software that can be used to create, teach, and interact with music. Provides systematic, hands-on applications of computer hardware and software to music-specific activities and tasks, including audio editing, music notation, and multimedia presentations. The Final Project demonstrates the student's ability to create and store on CD-ROM and/or DVD a complete musical project using a variety of file formats, and audio and video production software.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5763. Analog and Modular Sound Synthesis. 3 Credit Hours.**

This class examines the history and techniques of making music with analog and modular synthesizers. Students gain sound sculpting and composition skills using several analog and modular synthesizers. Skills include learning how the modules in an analog synthesizer work and can be linked together and into a larger system to produce a vast palette of timbres. Students also develop an ability to recognize different analog synthesis techniques by ear, and compose several short pieces of music using sounds they create. Students acquire an understanding of how analog synthesizers are used in and have shaped many musical genres.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5764. Scoring for Film and Digital Media. 3 Credit Hours.**

Students will learn the aesthetics, terminology, procedures, and technical aspects of scoring for the visual medium. They will develop an understanding of the software used to synchronize original music to film and video, including MIDI, sample libraries, and sequencing. Students will complete projects that focus on a broad range of techniques, such as spotting, click tracks, understanding dramatic narrative, and scoring under dialogue. Further understanding of scoring techniques will occur through analysis of significant examples from the film music literature. Students will gain a fundamental understanding of the film industry, including how to identify and secure opportunities for scoring, the basics of how to approach the logistics of a feature-length film, budgeting, and the personnel involved in projects large and small. The role of music in other visual media, such as video games, theatrical production, and interactive media, will be briefly explored.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5765. Scoring and Audio Design for Video Games. 3 Credit Hours.**

Students gain a basic understanding of composing interactive music and designing audio for video games. Students will become proficient in the software involved in this process, including a DAW, middleware, and game distribution. The vocabulary and technology of audio production are taught, as well as an understanding of the function of music in interactive media. The business skills necessary to enter and develop a successful career in game audio will be explored. The course contains a laboratory component in which students develop sequencing skills and work with synchronized animation.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5768. Composition Lesson for Non-Composition Music Major. 2 Credit Hours.**

Weekly private lessons on the basic principles of Music Composition culminating in a portfolio of three finished new works adjusted to each student's level and aspirations. Portfolio and interview required.

**Repeatability:** This course may be repeated for a total of 4 credit.

**MUST 5773. Digital Signal Processing for Music. 3 Credit Hours.**

An investigation of Digital Signal Processing for Music. This course employs lectures, demonstrations, and interactive software to enable students to understand the ways sound is represented by digital signals, and how to transform those signals through mathematical operations.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5774. Hearing Music: Acoustics and Psychoacoustics of Music. 3 Credit Hours.**

A seminar on the psychoacoustics of music, based partly on Perry Cook's collection of essays: "Music, Cognition and Computerized Sound." This course employs lectures and demonstrations to enable students to understand the physics of sound and the perceptual characteristics of the Human Auditory System. Taken together, acoustics and psychoacoustics provide the student with an understanding of why music has the qualities it has, and how sound makers can utilize that knowledge to be more successful in their chosen fields.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5775. Seminar in Audio Software Design. 4 Credit Hours.**

Students will learn advanced mathematical and programming techniques for digital audio signal processing and software design. Topics covered will include spectral audio programming, algorithmic synthesis, compiling, MIDI, OSC, mobile applications, live processing, and software architecture.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 5776. Seminar in Physical Computing and Electronic Instrument Design. 4 Credit Hours.**

Students will learn the advanced concepts needed for physical computing and electronic instrument design, including basic circuitry and programming. Topics covered will include direct digital synthesis, audio input and output, MIDI, sensors, microcontrollers, and real-time control.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8100. Jazz Ensemble. 1 Credit Hour.**

Weekly rehearsals of variously-sized groups culminating in an end of semester performance. Advanced course material from the standard jazz canon and new compositions.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8104. Jazz Major. 3 Credit Hours.**

Private lessons for graduate jazz studies majors, instrumental, vocal, composition or arranging. One-hour lesson each week. Culminates in full recital during final year of study. Students are required to perform or teach private lessons outside the university, subject to availability and/or scheduling conflicts with other Boyer courses or obligations.

**Repeatability:** This course may be repeated for additional credit.



**MUST 8110. Jazz Ensemble II. 1 Credit Hour.**

Weekly rehearsals culminating in an end of semester performance. Course material from the standard jazz canon and new compositions.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8111. Seminar in Jazz History. 3 Credit Hours.**

A detailed advanced survey of issues current in the research and scholarship of Jazz History. The focus is upon the completion of an individual research project suitable for publication.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8112. Seminar in Jazz Improvisation. 3 Credit Hours.**

An advanced survey of the current trends and traditional practices in jazz improvisation with an emphasis upon theoretical approaches and applications in small ensembles of various sizes and instrumental groupings.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8113. Seminar in Jazz Composition. 3 Credit Hours.**

An advanced survey of the current trends and traditional practices in jazz composition with an emphasis upon theoretical and practical approaches and applications in small ensembles of various sizes and instrumental groupings.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8114. Jazz Major. 3 Credit Hours.**

Private lessons for graduate jazz studies majors, instrumental, vocal, composition or arranging. One-hour lesson each week. Culminates in full recital during final year of study. Students are required to perform or teach private lessons outside the university, subject to availability and/or scheduling conflicts with other Boyer courses or obligations.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8115. Seminar in Jazz Arranging. 3 Credit Hours.**

An advanced survey of the current trends and traditional practices in jazz arranging with an emphasis upon theoretical and practical approaches and applications in small and large ensembles of various sizes and instrumental groupings.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8120. Special Topics in Jazz History. 1 to 3 Credit Hour.**

Advanced focus upon the work of a jazz artist or composer or a particular style or period culminating in a paper suitable for publication.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8124. Jazz Major. 3 Credit Hours.**

Private lessons for graduate jazz studies majors, instrumental, vocal, composition or arranging. One-hour lesson each week. Culminates in full recital during final year of study. Students are required to perform or teach private lessons outside the university, subject to availability and/or scheduling conflicts with other Boyer courses or obligations.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8130. Special Topics in Jazz Theory. 1 to 3 Credit Hour.**

Advanced theoretical analysis of the work of a composer or a stylistic period culminating in a paper suitable for publication.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8140. Special Topics in Jazz Improvisation. 1 to 3 Credit Hour.**

Advanced concepts of jazz improvisation for use in small ensembles of various sizes and instrumental groupings.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8150. Special Topics in Jazz Composition. 1 to 3 Credit Hour.**

Advanced focus upon the development of a portfolio of jazz compositions suitable for publication.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8160. Special Topics in Jazz Pedagogy. 1 to 3 Credit Hour.**

Advanced analysis and application of current techniques and practices in jazz pedagogy.

**Repeatability:** This course may be repeated for additional credit.



**MUST 8170. Special Topics in the Business of Music. 1 to 3 Credit Hour.**

Advanced business and entrepreneurship strategies for music performers.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8180. Special Topics in Music. 1 to 3 Credit Hour.**

**Repeatability:** This course may be repeated for additional credit.

**MUST 8184. Jazz Major (Recital). 3 Credit Hours.**

Private lessons for graduate jazz studies majors, instrumental, vocal, composition or arranging. One-hour lesson each week. Culminates in full recital during final year of study. Students are required to perform or teach private lessons outside the university, subject to availability and/or scheduling conflicts with other Boyer courses or obligations.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8220. Special Topics in Jazz Voice. 2 to 3 Credit Hours.**

Advanced concepts in jazz vocal practice for use in both large and small ensembles of various sizes and instrumental groupings. Course material will be from both the standard and jazz repertoires.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8230. Special Topics in the American Songbook. 2 to 3 Credit Hours.**

Advanced concepts in vocal practice for use in both large and small ensembles of various sizes and instrumental groupings. Course material will focus exclusively upon standard repertoire.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8480. Special Topics in Music. 1 to 3 Credit Hour.**

Special authorization required.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8602. Intro to Ethnomusicology. 2 to 3 Credit Hours.**

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8700. Latin American Ensemble. 0 to 1 Credit Hours.**

**Repeatability:** This course may be repeated for additional credit.

**MUST 8701. Research in Music. 3 Credit Hours.**

Survey of primary reference tools, monumental editions and collected works, periodicals, histories, theoretical treatises, iconography, organology, and other bibliographic materials. Term paper written under supervision.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8702. Introduction to Ethnomusicology. 2 to 3 Credit Hours.**

An overview of the history of ethnomusicology rather than an introduction to the specific musical practices of various countries. Focuses on the origins of the discipline at the turn of the 20th century, various interests of ethnomusicologists over the years, and internal debates within the field about their relative importance. Attention is given to anthropology and cultural studies on ethnomusicology since the 1970s and its growing interdisciplinary orientation.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8703. Studies in Ethnomusicology. 3 Credit Hours.**

Seminar focusing on issues prominent in present-day ethnomusicological research.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8704. Music in History. 3 Credit Hours.**

Advanced survey of the music of the Classic and Romantic periods and music of the 20th century.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8705. Music in History. 3 Credit Hours.**

Advanced survey of the history, style, and musical forms from antiquity through the Renaissance.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8706. Live Recording and Mixing for Broadcast. 3 Credit Hours.**

This course explores fundamental planning and procedures for capturing live music for video broadcast. Topics include planning, staging, preparation and execution of a live performance recording, followed by procedures for effective and cohesive mixing for broadcast. We will initiate and complete a typical "real world" music performance broadcast delivery project.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of B- in (MUST 4713, MUST 5729, or MUST 8729) and (MUST 4714, MUST 5714, or MUST 8712)

**MUST 8707. Computer Programming for Musicians. 3 Credit Hours.**

This course is an introduction to computer programming specifically designed to enable making music with a computer. Through a combination of creative activities and projects using the Python programming language, one of the most common languages used today for making music with computers, students learn foundational pedagogical concepts of computer programming and computational thinking, all within a musical context.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8708. History of Opera. 2 to 3 Credit Hours.**

A history of opera from 1600-1790. An expanded paper and/or project is assigned for students seeking 3 credits.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8709. History of Opera. 2 to 3 Credit Hours.**

A continuation of MUSIC STUDIES 8708. An expanded paper and/or project is assigned for students seeking 3 credits.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8710. Early Music Ensemble. 1 Credit Hour.**

An opportunity to perform music from medieval through preclassic times. Reproduction of original instruments, principles of performance practice in original form and as they emerge through modern efforts at reconstruction.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8712. Sound Editing. 3 Credit Hours.**

A course in digital audio editing that applies principles and techniques learned in Sound Recording. Students work with ProTools software and complete a series of projects to develop listening and editing skills.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8713. Canon and Fugue. 3 Credit Hours.**

The development of technique in imitative style and an ability to construct phrase and sectional forms in canonic and fugal style.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8714. Contemporary Music. 3 Credit Hours.**

Late 19th- through 20th-century compositional theories and practices. Includes labs and practicums.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8715. Composition I. 1 to 2 Credit Hour.**

Original composition. Development of inventive ability through compositional modeling.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8716. Composing Music for Films. 3 Credit Hours.**

Students use MIDI equipment and software to compose music for synchronization to film and video. Vocabulary and technology of film production and an understanding of the function of music in documentary and experimental film and video are taught. Includes lab component to develop sequencing skills.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8717. Composition II. 1 to 2 Credit Hour.**

Original composition. Development of inventive ability through performance in a compositional laboratory.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8719. MIDI. 3 Credit Hours.**

An introduction to the use of MIDI technology, including basic synthesis, sound design, sequencing, and sampling.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8720. New Music Seminar. 2 Credit Hours.**

Seminar in the use of electronic devices such as cellphones, tablets, and laptop computers for music creation and performance.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8721. Computer Music Studio. 3 Credit Hours.**

Extensive, independent compositional activity with computer synthesis.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8722. Scoring for Film and Digital Media. 3 Credit Hours.**

Students will learn the aesthetics, terminology, procedures, and technical aspects of scoring for the visual medium. They will develop an understanding of the software used to synchronize original music to film and video, including MIDI, sample libraries, and sequencing. Students will complete projects that focus on a broad range of techniques, such as spotting, click tracks, understanding dramatic narrative, and scoring under dialogue. Further understanding of scoring techniques will occur through analysis of significant examples from the film music literature. Students will gain a fundamental understanding of the film industry, including how to identify and secure opportunities for scoring, the basics of how to approach the logistics of a feature-length film, budgeting, and the personnel involved in projects large and small. The role of music in other visual media, such as video games, theatrical production, and interactive media, will be briefly explored.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8724. Printing Musical Scores and Parts. 3 Credit Hours.**

This is course for music students, particularly composers, who wish to become proficient with music engraving software. At the conclusion of the course, a student should be able to create scores and parts that conform to prevailing professional standards for music engraving. Course topics include a brief history of musical notation, historical methods of music printing, computer concepts such as scalable fonts and PostScript, score layout, and formatting conventions. In addition to periodic assignments, the course requires a written mid-term examination and a final project. Additional projects required for graduate students.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8725. Computers in Mus Applications. 3 Credit Hours.**

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8726. Computer Synthesis. 3 Credit Hours.**

Certain musical applications of digital computers, including digital recording, digital sound synthesis, speech synthesis, and various real-time applications. The Csound and PureData applications are used throughout.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8727. Electronic Music Composition: Practice, History, Theory. 3 Credit Hours.**

The history of electro-acoustic music, which is essential to music in the 20th century. Composers who wrote for electronic instruments include Edgard Varèse, Olivier Messaien and Paul Hindemith, the "musique concrète" school (Pierre Schaeffer, Pierre Henry, Edgard Varèse, etc.), Karlheinz Stockhausen, Gyorgi Ligeti, Luciano Berio, Milton Babbitt, John Cage, Iannis Xenakis, and Mario Davidovsky. These composers used unique and varied technologies in their music. New technologies soon crossed over into pop music, and now dominate commercial music and film. A dialogue between composers and engineers is now crucial in order to make all aspects of sound available to composers. This is available to composers, theorists, historians, and instrumentalists, who must master the extended techniques that are now an essential part of new music performance.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8728. Advanced Audio Production. 3 Credit Hours.**

Advanced Audio Production will focus on advanced skills of audio production. Work will be done on the most common Digital Audio Workstation, Pro Tools, but is applicable to all DAWs.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8729. Sound Recording. 3 Credit Hours.**

A course in concert hall recording of live music including topics such as room acoustics, electrical signals, microphones, recording decks and editing systems. A quantitative approach to theory will be balanced by practical laboratory instruction. NOTE: The course is required for students who have elected the Music Technology Component.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8730. Electronic Music Ensemble. 1 Credit Hour.**

An opportunity to perform electro-acoustic and digital music using laptops, tablets, various sensors, controllers, synths and multi-channel speakers. Members act as performers, researchers, composers and software developers.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8731. The Pedagogy of Music Theory. 3 Credit Hours.**

This course covers the methodologies for teaching both written and aural music theory. Course work includes a survey of current and past textbooks in music theory. In addition, the course covers how to create a syllabus, how to write a lesson plan, how to manage class time, and how to deal with different learning styles among students.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8732. Programming in Max. 3 Credit Hours.**

This course will use the visual programming language Max to explore and implement various topics in electro-acoustic music and digital media. Topics covered will include digital sound synthesis (additive, subtractive and modulation synthesis), signal processing and sequencing. Students will learn mathematical and programming techniques for expressive digital audio signal processing and software design. Topics covered will include spectral audio programming, algorithmic synthesis, compiling, MIDI, OSC, mobile applications, live processing, and software architecture. Students will create their own interactive programs and algorithms modeled after course concepts and use these to compose a series of "etudes". Additionally, a working history of electronic music will complement course topics.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8733. Music Mixing in Pro Tools for Music Technology. 3 Credit Hours.**

This course explores fundamental planning and procedures for creating a functional and sharable music mixing session in Pro Tools. Pro Tools basic structure, importing audio, mixing basics, and final mix delivery are covered. A new song or music project will be introduced with each class, with a mix delivery due prior to the next week's class.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of B- in MUST 8728 (may be taken concurrently)

**MUST 8737. History and Pedagogy of Musicology. 3 Credit Hours.**

History and Pedagogy of Musicology studies the major figures and methodologies in the history of musicology. In addition, the course examines the growing field of pedagogical methods in play for teaching music history for both non-music majors and music majors at the undergraduate level.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of B- in MUST 8701.

**MUST 8738. Schenkerian Analysis 1. 3 Credit Hours.**

This course is an introduction to the theories of Heinrich Schenker. The course will begin with a review of harmony (Stufen theory) and counterpoint (Species) as conceived by Schenker. The primary concern of the course, however, is to learn how to create Schenkerian analyses, starting with analysis at the level of the musical phrase and culminating in the analysis of a sonata form. Weekly assignments will include analyses of excerpts drawn from 18th- and 19th-century music

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8739. Schenkerian Analysis 2. 3 Credit Hours.**

This course continues the study of Schenkerian Analysis first through study of his three major works: Schenker's Harmony text, his Counterpoint text, and his Free Composition. The course also includes analysis of longer forms, chromatic music, and extensions of his theory in rhythmic analysis, and music after 1900.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of B- in MUST 8738.

**MUST 8740. Seminar in Composition. 3 Credit Hours.**

Enrollment limited to composition majors. For students enrolled in M.M. and D.M.A. programs in Composition. Guidance toward realization of individual creative concepts in music and critical evaluation of the results.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8741. Analytical Techniques. 3 Credit Hours.**

This course develops techniques for the analysis and understanding of music's expressive structure. Its primary goal is to develop greater comprehension of frequently encountered compositional forms and devices as found in great works of literature. A second goal is to provide a basic introduction to some of the current methods of theoretical analysis of music (which will probably be new or less familiar to most students). A third goal is to relate analysis to performance; in other words, how can analysis lead to a more informed performance? The course is divided into eight parts of primarily 2-week sections—I: Contrapuntal Procedures; II: Harmonic Forms; III: Schenkerian Analysis; IV: Rhythm, Meter, and Hypermeter; V: Hermeneutic Approaches; VI. Twentieth-Century Techniques and Jazz; VII. Set Theory and Twelve-Tone Theory; VIII. Grand Finale.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8742. Seminar in Theoretical Analysis. 3 Credit Hours.**

Investigation of theoretical and analytical problems in music, including theories of Heinrich Schenker and others as pertinent to particular faculty concerns.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8743. Seminar in Stylistic Analysis. 3 Credit Hours.**

Advanced study of compositional techniques, composers, analytical techniques, and/or genres. Seminar subject areas may include Bartok's theory and practice, Stravinsky's Russian Period, Analytical Techniques, Lied, Analysis of Opera, Mozart's Piano Concerti, Music of Debussy and Messaien, current trends in analysis, American Neo-classicism, serialists, and others.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8744. Seminar in Stylistic Analysis. 3 Credit Hours.**

Advanced study of compositional techniques, composers, analytical techniques, and/or genres. Seminar subject areas may include Bartok's theory and practice, Stravinsky's Russian Period, Analytical Techniques, Lied, Analysis of Opera, Mozart's Piano Concerti, Music of Debussy and Messaien, current trends in analysis, American Neo-classicism, serialists, and others.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8745. Seminar in Stylistic Analysis. 3 Credit Hours.**

Advanced study of compositional techniques, composers, analytical techniques, and/or genres. Seminar subject areas may include Bartok's theory and practice, Stravinsky's Russian Period, Analytical Techniques, Lied, Analysis of Opera, Mozart's Piano Concerti, Music of Debussy and Messaien, current trends in analysis, American Neo-classicism, serialists, and others.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8746. Seminar in Stylistic Analysis. 3 Credit Hours.**

Advanced study of compositional techniques, composers, analytical techniques, and/or genres. Seminar subject areas may include Bartok's theory and practice, Stravinsky's Russian Period, Analytical Techniques, Lied, Analysis of Opera, Mozart's Piano Concerti, Music of Debussy and Messaien, current trends in analysis, American Neo-classicism, serialists, and others.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8747. Aesthetics of Music. 3 Credit Hours.**

Aesthetic principles as applied to music. Problems in making value judgments. Historical survey of aesthetic theories. Individual investigation of topics.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8748. Seminar in Post-Tonal Theory. 3 Credit Hours.**

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8749. Current Topics in Musicology and Theory. 3 Credit Hours.**

A detailed survey of issues driving current research in musicology and music theory. A required foundation-course for graduate students in musicology/theory, Current Topics is also open to other graduate students with an interest in these disciplines. Although the course begins with a brief history of these two disciplines, the emphasis for most of the semester is on the various methodologies and issues now in circulation. The conclusion of the course focuses on individual research projects, where students begin an intense study of an area of interest to them. This study culminates in the writing of a proposal, suitable to form the basis of a thesis paper or publishable research.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8750. Special Topics in Music Technology. 3 Credit Hours.**

Advanced focus on one or more topics related to the field of Music Technology.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8751. Singing on Record. 2 to 3 Credit Hours.**

A survey of the most notable recorded vocal performances. Emphasis is on vocal categories, repertoire, the operatic career, changing vocal styles, performance traditions, and vocal practices throughout the decades.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8752. Studies in Renaissance Music. 3 Credit Hours.**

Selected topics from sacred and secular polyphony and early instrumental music.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8753. Music in the Baroque Era: Seventeenth Century. 3 Credit Hours.**

A study of the major stylistic development in the instrumental and vocal music from 1600 to 1700.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8754. Music in the Classical Period. 3 Credit Hours.**

Examination of stylistic trends and representative works of pre-classic composers; detailed study of Haydn and Mozart.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8755. Music in the Romantic Period I. 3 Credit Hours.**

An examination of music from the first half of the 19th century in the context of new social conditions, literary Romanticism, bourgeois audiences, and the changing role of the artist.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8756. Music in the 20th Century: 1900-1945. 3 Credit Hours.**

An examination of stylistic trends in vocal and instrumental music composed from 1900 through World War II.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8757. Music of the Late Baroque. 3 Credit Hours.**

Study of selected works: Vivaldi, Rameau, Bach, Handel, and other composers of the late Baroque period.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8758. Sons of J.S. Bach. 3 Credit Hours.**

Seminar on music composed by several sons of J.S. Bach: Carl Philipp Emanuel, Johann Christian, and Wilhelm Friedemann.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8759. Trad/Pop Mus of Latin Am. 3 Credit Hours.**

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8760. Special Topics in Music Technology. 3 Credit Hours.**

Advanced focus on one or more topics related to the field of Music Technology.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8761. Nineteenth-Century Program Music. 3 Credit Hours.**

A study of the development of instrumental program music in the 19th century. Readings, analysis and individual research are required.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8762. Introduction to Music Technology for Non-Majors. 3 Credit Hours.**

Introduction to the ways in which computer software and hardware can be used to create, edit, and produce audio, music, and multimedia files. Various music styles and genres, such as hip hop, house, techno, ambient, drum and bass, EDM, experimental, and trap, will be explored through lectures, demonstrations, and hands-on individual and group projects. Additional topics will include working with loops, mixing audio, and the differences between various file formats. A final project is required that demonstrates the student's ability to create a complete musical project using a variety of audio software and file formats. The course is open to all students at Temple with the exception of Music Technology majors. A basic knowledge of music notation and the ability to read music are strongly recommended, though not required.

**Repeatability:** This course may not be repeated for additional credits.



**MUST 8763. Studies in Performance Practice. 3 Credit Hours.**

An exploration of major issues surrounding the performance of instrumental and vocal music from 1600 to the early 20th century. Through the study of historical treatises and tutors, modern secondary literature, recordings, and the music itself, this seminar seeks to broaden the range of performance options available to contemporary performers interested in creating historically informed interpretations.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8764. Studies in Performance Practice. 3 Credit Hours.**

A continuation of Studies in Performance Practice 8763.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8765. Late Nineteenth-Century Russian Music. 3 Credit Hours.**

The Russian, Post-Wagnerian tradition in the music of Tchaikovsky and Rachmaninoff. Genres include symphony, concerto, song, and piano music.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8766. Music of the Caribbean. 3 Credit Hours.**

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8767. Nineteenth Century Piano Music. 3 Credit Hours.**

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8768. Renaissance Performance Practice. 3 Credit Hours.**

Problems confronting performers of both vocal and instrumental music (ca. 1450-1600): improvisation and ornamentation, modal theory, and music ficta.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8769. Verdi Seminar. 3 Credit Hours.**

A chronological survey of the major works of Verdi, focusing on changing styles and performance practices.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8771. Post-Tonal Theory II. 3 Credit Hours.**

This course extends the studies begun in Post-Tonal Theory through readings and analysis. It is organized into 3-week sessions: 1. Explorations of Atonal Theory; 2. Explorations in Transformational Theory; 3. Explorations in Twelve-Tone Theory; 4. Explorations in Rhythm. The course concludes with student presentations and a final scholarly paper.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:** Minimum grade of B- in MUST 8748.

**MUST 8773. Digital Signal Processing for Music. 3 Credit Hours.**

An investigation of Digital Signal Processing for Music. This course employs lectures, demonstrations, and interactive software to enable students to understand the ways sound is represented by digital signals, and how to transform those signals through mathematical operations.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8774. Hearing Music: Acoustics and Psychoacoustics of Music. 3 Credit Hours.**

A seminar on the psychoacoustics of music, based partly on Perry Cook's collection of essays: "Music, Cognition and Computerized Sound." This course employs lectures and demonstrations to enable students to understand the physics of sound and the perceptual characteristics of the Human Auditory System. Taken together, acoustics and psychoacoustics provide the student with an understanding of why music has the qualities it has, and how sound makers can utilize that knowledge to be more successful in their chosen fields.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8775. Seminar in Audio Software Design. 4 Credit Hours.**

Students will learn advanced mathematical and programming techniques for digital audio signal processing and software design. Topics covered will include spectral audio programming, algorithmic synthesis, compiling, MIDI, OSC, mobile applications, live processing, and software architecture.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8776. Seminar in Physical Computing and Electronic Instrument Design. 4 Credit Hours.**

Students will learn the advanced concepts needed for physical computing and electronic instrument design, including basic circuitry and programming. Topics covered will include direct digital synthesis, audio input and output, MIDI, sensors, microcontrollers, and real-time control.

**Repeatability:** This course may not be repeated for additional credits.



**MUST 8777. American Popular Music. 3 Credit Hours.**

Advanced exploration of the roots and transitions of American popular music in the 20th and early 21st centuries. Particular focus upon: cultural, political, and economic contexts; various artists, recordings, and styles; identity with regard to music (e.g. class, gender, race, ethnicity, etc.); and how popular music embodies, and even affects, these cultural tendencies.

**Repeatability:** This course may be repeated for additional credit.

**MUST 8778. Scoring and Audio Design for Video Games. 3 Credit Hours.**

Students gain an understanding of composing interactive music and designing audio for video games. Students will become proficient in the software involved in this process, including a DAW, middleware, and game distribution. The vocabulary and technology of audio production are taught, as well as an understanding of the function of music in interactive media. The business skills necessary to enter and develop a successful career in game audio will be explored. The course contains a laboratory component in which students develop sequencing skills and work with synchronized animation.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8779. Romantic Performance Practice: The Schumanns, Chopin, and Brahms. 3 Credit Hours.**

This seminar will focus on historically aware interpretations of keyboard, vocal, and chamber music by the Schumanns, Chopin, and Brahms. Special attention will be paid to the roles of improvisation, dance, and earlier instruments, along with questions of tempo, articulation, and rubato. Assignments will include reading, listening, and class performance.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 8783. Analog and Modular Sound Synthesis. 3 Credit Hours.**

This hands-on class examines techniques of making music with analog and modular/semi-modular synthesizers within a historical framework. Students will first be introduced to the personalities and machines behind early electronic music. Historical and contemporary techniques of sound synthesis, patch creation/documentation and modulation will be discussed and employed using a variety of hardware and software synthesizers with an emphasis on in-house hardware. Students will record and upload clips to a sample catalog that they will use as a basis for compositional studies.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 9182. Independent Study. 1 to 3 Credit Hour.**

Special authorization required.

**Repeatability:** This course may be repeated for additional credit.

**MUST 9282. Independent Study. 1 to 3 Credit Hour.**

Special authorization required.

**Repeatability:** This course may be repeated for additional credit.

**MUST 9701. Doctoral Seminar Analysis, Interpretation, and Performance. 3 Credit Hours.**

For doctoral students only; master's with permission. An inquiry in broad context and across media into some fundamental issues of performance. Analysis, readings, discussions, performance, and critique.

**Repeatability:** This course may not be repeated for additional credits.

**MUST 9702. Doctoral Seminar in Music Studies: Music Theory. 3 Credit Hours.**

This course is a directed-research course focused on a sub-topic in the field of music theory. The course includes intensive reading and writing about that sub-topic. The course includes discussions about how to develop a working thesis (proposal), how to write an abstract, how to write a lecture, and how to develop that lecture into a seminar paper and into a publishable article.

**Repeatability:** This course may be repeated for additional credit.

**Pre-requisites:** Minimum grade of B- in MUST 8701.

**MUST 9703. Doctoral Seminar in Music Studies: Music History. 3 Credit Hours.**

This course is a directed-research course focused on a sub-topic in the field of music history. The course includes intensive reading and writing about that sub-topic. The course includes discussions about how to develop a working thesis (proposal), how to write an abstract, how to write a lecture, and how to develop that lecture into a seminar paper and into a publishable article.

**Repeatability:** This course may be repeated for additional credit.

**Pre-requisites:** Minimum grade of B- in MUST 8701.

**MUST 9704. Doctoral Seminar in Music Studies: Music Composition. 3 Credit Hours.**

This course is a directed-research course focused on a sub-topic in the field of music composition. The course includes intensive reading and writing about that sub-topic. The course includes discussions about how to develop a working thesis (proposal), how to write an abstract, how to write a lecture, and how to develop that lecture into a seminar paper and into a publishable article.

**Repeatability:** This course may be repeated for additional credit.

**Pre-requisites:** Minimum grade of B- in MUST 8701.

**MUST 9994. Preliminary Exam Preparation. 1 to 6 Credit Hour.**

**Repeatability:** This course may be repeated for additional credit.

**MUST 9995. Final Project: Music Studies. 1 to 3 Credit Hour.**

Under departmental approval and faculty supervision, students in a master's program in the department of Music Studies will complete a substantial project in their area of specialization in music studies. The project will require the student to demonstrate an ability to integrate and synthesize advanced knowledge and skills in the creation of the project and will serve as the capstone experience for their master's program.

**Repeatability:** This course may be repeated for additional credit.

**MUST 9996. Master's Thesis in Music Studies. 1 Credit Hour.**

Under departmental approval and faculty supervision, students in a master's program in Music Studies will complete work towards a thesis as their capstone experience.

**Repeatability:** This course may be repeated for additional credit.

**MUST 9998. Pre-Dissertation Research. 1 to 6 Credit Hour.**

**Repeatability:** This course may be repeated for additional credit.

**MUST 9999. Dissertation/Monograph Research. 1 to 6 Credit Hour.**

Dissertation research or monograph research for doctoral candidates. Dissertation/Monograph Research credit maintains the continuous enrollment as required by the University.

**Repeatability:** This course may be repeated for additional credit.