Music Studies (MUST)

Course information contained within the Bulletin is accurate at the time of publication in August 2023 but is subject to change. For the most up-to-date course information, please refer to the Course Catalog.

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

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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

MUST 5003. Counterpoint Review. 1 Credit Hour.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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

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

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Field of Study Restrictions: Must be enrolled in one of the following Majors: Music Technology. **Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Music Performance.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Music Performance.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Music. **Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Music Technology.

Degree Restrictions: Must be enrolled in one of the following Degrees: Bachelor of Science, Master of Science.

Repeatability: This course may be repeated for additional credit.

MUST 5721. Computer Music Studio. 3 Credit Hours.

Extensive, independent compositional activity with computer synthesis.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

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

MUST 5733. Music Mixing in Pro Tools. 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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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 5740. Seminar in Composition. 3 Credit Hours.

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

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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 Messaien, current trends in analysis, American Neo-classicism, serialists, and others.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Music Technology.

Degree Restrictions: Must be enrolled in one of the following Degrees: Bachelor of Science, Master of Science.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Music Technology.

Degree Restrictions: Must be enrolled in one of the following Degrees: Bachelor of Science, Master of Science.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Jazz Studies.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Jazz Studies.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Jazz Studies.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Jazz Studies.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Jazz Studies.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

Repeatability: This course may be repeated for additional credit.

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

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Jazz Studies.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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

Special authorization required.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

Repeatability: This course may be repeated for additional credit.

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

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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

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

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

MUST 8714. Contemporary Music. 3 Credit Hours.

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

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may be repeated for additional credit.

MUST 8721. Computer Music Studio. 3 Credit Hours.

Extensive, independent compositional activity with computer synthesis.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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

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

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

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

MUST 8733. Music Mixing in Pro Tools. 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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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 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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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

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

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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

MUST 8766. Music of the Caribbean, 3 Credit Hours.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

MUST 8767. Nineteenth Century Piano Music. 3 Credit Hours.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Music Technology.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Degree Restrictions: Must be enrolled in one of the following Degrees: Master of Science.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Music Technology.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate. **Degree Restrictions:** Must be enrolled in one of the following Degrees: Master of Science.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Music Technology.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate. **Degree Restrictions:** Must be enrolled in one of the following Degrees: Master of Science.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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

MUST 9182. Independent Study. 1 to 3 Credit Hour.

Special authorization required.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

MUST 9282. Independent Study. 1 to 3 Credit Hour.

Special authorization required.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate. **Degree Restrictions:** Must be enrolled in one of the following Degrees: Doctor of Philosophy.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate. **Degree Restrictions:** Must be enrolled in one of the following Degrees: Doctor of Philosophy.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate. **Degree Restrictions:** Must be enrolled in one of the following Degrees: Doctor of Philosophy.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

MUST 9995. Final Project: Music Technology. 1 to 3 Credit Hour.

Under departmental approval and faculty supervision, the student will design and implement a substantial project in music technology. The project will include a written paper with supporting documentation and appropriate bibliographic references that explain the project in detail. The project and paper will require that the student demonstrate an ability to integrate and synthesize advanced technological knowledge and skills in the conceptualization and creation of the final outcome, such as a piece of software, hardware, media project, or multimedia product. Students projects will be showcased and discussed by each student as a capstone event, open to the public.

Field of Study Restrictions: Must be enrolled in one of the following Majors: Music Technology. **Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate. **Degree Restrictions:** Must be enrolled in one of the following Degrees: Master of Science.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

Repeatability: This course may be repeated for additional credit.

MUST 9996. Final Written Project: Music Theory. 1 Credit Hour.

A minimum of one semester is required of all M.M. candidates in the Music Theory program

Field of Study Restrictions: Must be enrolled in one of the following Majors: Music Theory. Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

Repeatability: This course may be repeated for additional credit.

MUST 9998. Pre-Dissertation Research. 1 to 6 Credit Hour.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

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.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: Music & Dance, Boyer College.

Student Attribute Restrictions: Must be enrolled in one of the following Student Attributes: Dissertation Writing Student.