

# Jazz Studies, M.M.

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Center for the Performing and Cinematic Arts / BOYER COLLEGE OF MUSIC AND DANCE

Learn more about the Master of Music in Jazz Studies.

## About the Program

The master's degree in Jazz Studies consists of advanced training in Jazz Performance and support academic areas vital to the field. Studio and ensemble experiences are combined with rigorous coursework to provide comprehensive training in performance and scholarship. This broad and rigorous program is built on an ideal blend of performance and academic courses taught by an outstanding faculty. Intensive studio training and the proper blend of supportive academic coursework are designed to prompt students to enhance technical expertise while further honing a unique creative/artistic vision.

**Time Limit for Degree Completion:** 6 years

**Campus Location:** Main

**Full-Time/Part-Time Status:** The degree program can be completed on a full- or part-time basis.

**Interdisciplinary Study:** With approval of the major advisor, students may elect to take up to 5 graduate credits outside the field of music.

**Accreditation:** This degree program has been submitted for Plan Approval by the National Association of Schools of Music (NASM).

**Areas of Specialization:** Study focuses on performance of the major instrument in both solo and ensemble settings combined with academic support areas in music. Students must select a concentration from among these major instruments:

- Bassoon
- Cello
- Clarinet
- Double Bass
- Euphonium
- Flute
- French Horn
- Guitar
- Oboe
- Percussion
- Piano
- Saxophone
- Trombone
- Trumpet
- Tuba
- Viola
- Violin
- Voice

**Job Prospects:** The program prepares musicians for either professional activity or doctoral study.

**Non-Matriculated Student Policy:** Non-matriculated students may enroll in select courses in music with permission, but may not take applied lessons until they have been fully admitted and matriculated.

**Financing Opportunities:** Boyer College of Music and Dance offers a number of assistantships and academic internships to matriculated graduate students. Full awards carry a cash stipend plus full tuition remission for the Fall and Spring terms. Partial awards also are available in values of 1/4 or 1/2 of a full award. Duties for assistantships and internships vary, but typically include teaching, tutoring, classroom assistance, research, artistic performance, and/or direct service related to academic programs. Assistantship and internship awards are made only in the Fall term for up to two terms: Fall and Spring. Awards may be renewed on an annual basis (typically up to one additional year for master's students and up to three years for doctoral students) based on departmental needs as well as satisfactory academic and musical progress by the recipient.

## Admission Requirements and Deadlines

### Application Deadline:

Fall: March 1

Spring: November 1

Applications are processed as they arrive. Late applications may be considered for admission.

APPLY ONLINE to this graduate program.

### Letters of Reference:

Number Required: 2

*From Whom:* Letters of recommendation should be obtained from evaluators who can provide insight into an applicant's abilities, talents, and aptitude for graduate study.

**Coursework Required for Admission Consideration:** All applicants must present credentials that are the equivalent of the appropriate Bachelor of Music degree at Temple University, which is based on a curriculum of 124 to 135 hours.

**Bachelor's Degree in Discipline/Related Discipline:** A degree in Music is expected.

**Statement of Goals:** Include your special interests within the discipline and expectations for the program.

### Standardized Test Scores:

Applicants who earned their baccalaureate degree from an institution where the language of instruction was other than English, with the exception of those who subsequently earned a master's degree at a U.S. institution, must report scores for a standardized test of English that meet these minimums:

- TOEFL iBT: 71
- IELTS Academic: 6.5
- PTE Academic: 49

**Audition:** See <https://www.temple.edu/boyer/admissions/graduate-admissions/audition-requirements.asp> for audition repertoire requirements.

**Resume:** Current resume required.

**Transfer Credit:** A student who wishes to transfer credit should speak with her/his academic advisor and obtain a "Request for Transfer of Graduate Credit" form, found in TUportal under the Tools tab within "University Forms." Transfer credits must be approved by the advisor, the department chair, and the Associate Dean. The maximum number of credits a student may transfer is 6.

**Other:** Due to the large number of applications for admission and the competitive nature of its music programs, the College admits only a portion of its applicants. In addition to the general admissions credentials required of all Temple University graduate applicants, specialized admission criteria (i.e., auditions, portfolios, interviews, recommendations, departmental term papers, and standardized examinations) are very heavily weighted in admission decisions of the Boyer College of Music and Dance. Graduate applicants may be rejected for admission for failing to obtain the required level of proficiency in any one area of the specialized admission criteria regardless of the level of success in meeting the Temple University general admission criteria. In addition to the level of success demonstrated in the above-mentioned criteria, a final admission factor is the College's Optimum Enrollment Policy. This policy may preclude the admission of any student who meets the minimum requirements.

## Program Requirements

### General Program Requirements:

Number of Credits Required Beyond the Baccalaureate: 30

Required Courses:

Code	Title	Credit Hours
<b>Core Courses</b>		
MUST 8100	Jazz Ensemble (4 terms) <sup>1</sup>	4
MUST 8104	Jazz Major	3
MUST 8114	Jazz Major	3
MUST 8124	Jazz Major	3
Jazz Seminars or Jazz Special Topics Courses		9
<b>Electives</b> <sup>2</sup>		<b>5</b>
<b>Final Project</b>		

MUST 8184	Jazz Major (Recital)	3
Total Credit Hours		30

- 1 M.M. candidates must be available for ensemble assignments, which are determined by the department chair and may exceed curricular requirements.
- 2 Select from Music, Music Education, Music Studies, or other graduate departments. At least 3 credits must be in academic, non-performance coursework. Advisor approval required.

**Additional Requirements:**

All degree credits are to be earned at Temple University.

*Diagnostic Examinations:*

All entering Master of Music students in Jazz Studies are required to take Diagnostic Examinations in Jazz Theory and Jazz Styles and Analysis prior to the first term of graduate study. The purpose of these examinations is to determine weaknesses in undergraduate preparation. Depending on the examination results, students may be required to take one or more remedial courses. In these instances, the remedial courses will be graded on a "Credit / No Credit" basis and the official university transcript will indicate "CR" (for "Credit," meaning that the deficiency has been satisfied) or "NC" (for "No Credit," meaning that the deficiency has not been satisfied). Students must have a "B-" or better average in any remedial course or section thereof to earn the grade of "Credit" and to satisfy the requirement. Students who earn a grade of "NC" (that is, having a class average below "B-") must retake that course or section until an average of "B-" or higher is achieved and a grade of "CR" is recorded on the official university transcript.

Remedial courses are offered for undergraduate credit only, and may not count toward graduate degree requirements. Students may take the test only once, and if they do not pass the test or any portion thereof, they must enroll in the remedial course(s) during their first term of study. Depending on which section(s) of the examination are failed, the examiners will stipulate which sections of remedial coursework the student must take. The courses are:

Code	Title	Credit Hours
MUST 5105	Remedial Studies in Jazz History	1-3
MUST 5106	Remedial Studies in Jazz Theory	1-3

The requirement to take the Diagnostic Examination in any area is waived only for graduates of the Boyer College of Music and Dance who

1. matriculate and enroll in the term immediately following completion of all undergraduate degree requirements; and
2. received grades of "B-" or better in every undergraduate course taken in each individual examination area to be waived.

*Professional Development Policy:*

In addition to taking the required subjects for their degrees, all students in the Boyer College of Music and Dance are obligated to serve in a number of capacities in order to enrich their academic and musical expertise. Boyer College of Music and Dance believes that such experiences give impetus to successful professional careers. Among the duties that may be required are conducting laboratory classes; tutoring; teaching private lessons; coaching; participating in the distribution and inventory control of Temple University-owned musical instruments and instructional materials; participating in ensembles; accompanying; performing at admissions and open house events; supervising performance classes; and engaging in other academic activities.

*Performing Ensembles:*

1. Touring: All students in touring performing ensembles are required to participate in all scheduled tours. These tours, usually one or two weeks in length, often take place immediately after termination of terms. Students must arrange their schedules to accommodate this requirement.
2. Participation: Master's degree candidates in Jazz Studies must be available for ensemble assignments at the discretion of the department chair, including participation beyond curricular requirements.
3. Non-Credit Participation: With special permission, graduate students for whom there is no ensemble requirement, or where previous ensemble credits exceed the graduation requirement, may participate in choral and instrumental ensembles without cost, with prior permission from the ensemble director, the department chair, and the Associate Dean.

*Independent Study Courses:*

Independent study courses provide a special opportunity for graduate students to work in a highly individualized setting with one or more faculty members. All such study must receive the approval of the faculty member providing the instruction, the students' major advisor, and the Associate Dean. Approval will be granted only after the student has presented a detailed description of the intended independent study project. Approval of independent study projects will be granted only for students whose academic and musical record provides substantial support for the benefits of this type of study. In no case may more than 20% of a graduate student's curriculum be taken as independent study. Private lessons beyond those required in the curriculum are not an appropriate form of independent study.

*Acceptable English:*

All students, including those for whom English is not the native language, are expected to present all written work in acceptable English. No double standard exists to differentiate students on the basis of proficiency in the use of the English language. Students are also responsible for becoming familiar with the College's statement on plagiarism and academic honesty.

*Graduate Private Lesson Policy:*

Weekly one-hour private lessons are provided for all matriculated master's and doctoral performance majors in good standing, provided at least three additional credits of programmatically required graduate-level study are taken simultaneously. A \$250 per term lesson fee (subject to change without notice) is charged for all private lessons. Tuition remission may not be used to cover the private lesson fee.

Private applied lessons beyond the four-term requirement currently in effect for graduate performance students may be extended with the permission of the jury, department chair, and the Associate Dean or Dean of the Boyer College of Music and Dance.

*Recital Extension:*

Students withdrawing from the recital requirement during the recital term will receive an Incomplete and must register for extended study for non-degree credit (MUSC 5000 Recital Extension for 2 credits). Recital Extension must be taken each term until the recital has been presented. This course will be offered on a "Credit/No Credit" basis only. Upon satisfactory completion of the recital, the Incomplete for the recital course will be replaced by a letter grade and MUSC 5000 Recital Extension will be issued a grade of "CR." Credit derived from Recital Extension will not be counted toward degree requirements.

1. Recital Extension Fees: Tuition for these additional terms of private study will be the cost of 2 graduate credits plus a \$500 Recital Extension fee. Graduate assistantships and other forms of University-sponsored financial aid do not cover the Recital Extension fee.
2. Exceptions to Recital Extension:
  - a. Students who perform their recitals during the first three weeks of the Spring term are not required to register for Recital Extension that term.
  - b. Students who register for Recital Extension during the Summer may perform their recitals during the first three weeks of the Fall term. However, if the student does not take Recital Extension during the Summer, s/he may not present the recital in the Fall term, regardless of the date, without also registering for the Fall term of Recital Extension.
3. Failure to Present Recital: The degree status of students who are unable to present a recital after one term of Recital Extension will be reviewed by the Associate Dean and the major advisor, who, in consultation with the major teacher and department, will determine whether or not the student may continue in the program. Inability to present the recital after one term of Recital Extension may be grounds for dismissal from the degree program for failing to maintain reasonable academic progress.

*Incompletes:*

All incomplete grades and keyboard proficiencies must be fulfilled by the first day of the month in which the student expects to graduate.

**Culminating Events:**

*Comprehensive Final Project:*

Embedded in MUST 8184 Jazz Major (Recital), the final project is based on the total studio experience and the final recital, the program of which demonstrates completed research, composition, and arranging.

*Public Recital:*

Performance majors present a public recital as the culminating event for the master's degree [MUST 8184 Jazz Major (Recital)]. Graduation recitals are typically one hour in length; presented on-campus in either Rock Hall or Klein Recital Hall; and adjudicated by three full-time music faculty members. The student must show evidence through Temple University transcript records of having taken private lessons up to the time of the graduation recital. Students who wish to play a recital in the early Fall should plan to register for and complete the final term of lessons during the preceding Summer months.

A Recital Permission Form indicating the private teacher's approval for performance of the graduation recital must be signed by the private teacher and submitted six weeks prior to the recital. (If the recital is in the first five weeks of the Spring term, the form must be submitted two weeks before the end of the Fall term.) If required by the private teacher, a Recital Permission Jury must be scheduled at least four weeks prior to the recital. If the form is not submitted or a required jury is not scheduled, the department reserves the right to cancel or postpone the recital.

## Contacts

### Program Web Address:

<https://www.temple.edu/academics/degree-programs/jazz-studies-mm-bc-jzst-mmus>

### Department Information:

Jazz Studies Program  
Center for the Performing and Cinematic Arts/Boyer College of Music and Dance  
2001 N. 13th Street  
Philadelphia, PA 19122-6079  
[terell.stafford@temple.edu](mailto:terell.stafford@temple.edu)

215-204-5527

## Submission Address for Application Materials:

<https://apply.temple.edu/Boyer/>

## Department Contacts:

*Admissions:*

James Short

[jshort@temple.edu](mailto:jshort@temple.edu)

215-204-8598

*Program Director:*

Terell Stafford

[terell.stafford@temple.edu](mailto:terell.stafford@temple.edu)

215-204-8036

## Courses

### **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 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.

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

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

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

**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 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:**

(MUST 4713|Minimum Grade of B-|May not be taken concurrently  
OR MUST 5729|Minimum Grade of B-|May not be taken concurrently)  
AND (MUST 4714|Minimum Grade of B-|May not be taken concurrently  
OR MUST 5714|Minimum Grade of B-|May not be taken concurrently)

**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.

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

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

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

**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.

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

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

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

**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 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 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.

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



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

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

**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.

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

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

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

**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 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.

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

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

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

**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.

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

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

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

**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.

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

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

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

**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.

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

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

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

**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.

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

**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.

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

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

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

**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:**

(MUST 4713|Minimum Grade of B-|May not be taken concurrently  
OR MUST 5729|Minimum Grade of B-|May not be taken concurrently  
OR MUST 8729|Minimum Grade of B-|May not be taken concurrently)  
AND (MUST 4714|Minimum Grade of B-|May not be taken concurrently  
OR MUST 5714|Minimum Grade of B-|May not be taken concurrently  
OR MUST 8712|Minimum Grade of B-|May not be taken concurrently)

**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 preclassical 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.

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

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

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

**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. 2 Credit Hours.**

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. 2 Credit Hours.**

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.

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

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

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

**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.

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

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

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

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

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

**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 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:**

MUST 8701|Minimum Grade of B-|May not be taken concurrently.

**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:**

MUST 8738|Minimum Grade of B-|May not be taken concurrently.

**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.

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

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

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

**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 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 not be repeated for additional credits.

**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 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 not be repeated for additional credits.

**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.

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

**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 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. Music Technology. 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 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.

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

**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:**

MUST 8748|Minimum Grade of B-|May not be taken concurrently.

**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.

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

**MUST 8776. Seminar in Physical Computing and Electronic Instrument Design. 4 Credit Hours.**

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

**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 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.

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

**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:**

MUST 8701|Minimum Grade of B-|May not be taken concurrently.

**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:**

MUST 8701|Minimum Grade of B-|May not be taken concurrently.

**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:**

MUST 8701|Minimum Grade of B-|May not be taken concurrently.

**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.

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

**MUST 9995. Final Project. 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. Project proposals are due to the Program Director 4 weeks prior to registration.

**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 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.

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