School of Music Courses

About Course Numbers:
Each Carnegie Mellon course number begins with a two-digit prefix that designates the department offering the course (i.e., 76-xxx courses are offered by the Department of English). Although each department maintains its own course numbering practices, typically, the first digit after the prefix indicates the class level: xx-1xx courses are freshmen-level, xx-2xx courses are sophomore level, etc. Depending on the department, xx-6xx courses may be either undergraduate senior-level or graduate-level, and xx-7xx courses and higher are graduate-level. Consult the Schedule of Classes (https://enr-apps.as.cmu.edu/open/SOC/SOCServlet/) each semester for course offerings and for any necessary pre-requisites or co-requisites.

57-008 Vocal Master Class II
Fall
This is a group coaching class for sophomore voice majors.

57-009 Vocal Master Class II
Fall and Spring
This is a group coaching class for sophomore voice majors.

57-010 Voice Studio Performance Class
Fall and Spring
Voice Studio Performance Class is a required class for both undergraduate and graduate voice majors. Each student must participate in two singing rotations each semester and will receive written comments from the voice faculty. Students are also required to attend four studio classes each semester. Grading is pass/fail based on attendance.
Course Website: https://cmu.box.com/s/8e23hqzsk3e6b1s7fhhj49to2ilizk2 (https://cmu.box.com/s/8e23hqzsk3e6b1s7fhhj49to2ilizk2)

57-015 Violin Studio Performance Class
Fall and Spring
Once a week throughout the semester a “violin studio performance class” takes place. A studio class is a most important performance opportunity as it is a step between the studio lessons and the concert stage. Students perform the repertoire they are working on in front of the class and Prof. Forough. Along with comments from the class, Prof. Forough works one on one with each student. The repertoire performed can be solo pieces or accompanied pieces. This class is for violin majors who are studying with Prof. Forough. Other students may audit the class.

57-016 Viola Studio Performance Class
Fall and Spring
TBA

57-018 Double Bass Studio Performance Class
Fall and Spring
TBA

57-020 Flute Studio Performance Class
Fall and Spring
TBA
Course Website: https://cmu.box.com/s/8e23hqzsk3e6b1s7fhhj49to2ilizk2 (https://cmu.box.com/s/8e23hqzsk3e6b1s7fhhj49to2ilizk2)

57-021 Oboe Studio Performance Class
Fall and Spring
TBA
Course Website: https://cmu.box.com/s/8e23hqzsk3e6b1s7fhhj49to2ilizk2 (https://cmu.box.com/s/8e23hqzsk3e6b1s7fhhj49to2ilizk2)

57-022 Clarinet Studio Performance Class
Fall and Spring
The purpose of this class is to have performance before an audience (studio class members) to ease performance anxiety. The class meets once a week, is not for credit and is not mandatory. In addition to playing, the class listens to recordings of various styles of clarinet playing.
Course Website: https://cmu.box.com/s/8e23hqzsk3e6b1s7fhhj49to2ilizk2 (https://cmu.box.com/s/8e23hqzsk3e6b1s7fhhj49to2ilizk2)

57-023 Bassoon Studio Performance Class
Fall and Spring
TBA
Course Website: https://cmu.box.com/s/8e23hqzsk3e6b1s7fhhj49to2ilizk2 (https://cmu.box.com/s/8e23hqzsk3e6b1s7fhhj49to2ilizk2)

57-028 Euphonium Studio Performance Class
Fall and Spring
TBA

57-030 Percussion Studio Performance Class
Fall and Spring
TBA
Course Website: https://cmu.box.com/s/8e23hqzsk3e6b1s7fhhj49to2ilizk2 (https://cmu.box.com/s/8e23hqzsk3e6b1s7fhhj49to2ilizk2)

57-036 Vocal Master Class
Fall
TBA

57-037 Vocal Master Class I
Spring
TBA

57-038 Vocal Master Class
Fall
TBA

57-039 Vocal Master Class II
Spring
TBA

57-100 Convocation
Fall and Spring: 1 unit
A weekly meeting for all music students that features lectures, concerts, and other presentations related to professional development.
Course Website: https://cmu.box.com/s/8e23hqzsk3e6b1s7fhhj49to2ilizk2 (https://cmu.box.com/s/8e23hqzsk3e6b1s7fhhj49to2ilizk2)

57-101 Introduction to Music Technology
Fall and Spring: 6 units
This course gives an overview of music technology through practical information and several hands-on projects. Concepts such as MIDI and digital audio are introduced and specific topics are covered in detail including sequencing, music notation, digital recording, mixing, and production. Throughout the course, students are required to complete several projects and create musical compositions in styles of their own choosing. The student is not graded on the “musicality” of these compositions, but instead on how well they meet the stated project goals by correctly using specific equipment and/or computer programs.
Course Website: https://cmu.box.com/s/8e23hqzsk3e6b1s7fhhj49to2ilizk2 (https://cmu.box.com/s/8e23hqzsk3e6b1s7fhhj49to2ilizk2)

57-102 Finale
Spring: 6 units
This course provides hands-on and in-depth instruction of the Finale music notation program by Coda Music Software. Students will learn how to efficiently use the various notation tools that Finale has to input, edit, and manipulate music. MIDI input, playback, and transcription will also be covered to allow students to quickly notate and hear their music. The goal is to create professional-looking printed scores and parts in a variety of styles from Classical to Contemporary. Open to music majors only except by instructor permission. Introduction to Music Technology (57801/871) or equivalent experience required. Prerequisites: 57-171 or 57-101

57-103 Elective Studio (Beginning Piano Class)
Fall and Spring: 3 units
TBA
57-109 Elective Studio (Guitar Class)
Fall and Spring: 3 units
Using classical and jazz guitar methods, this course is designed to provide a basic set of techniques that will allow students to pursue the avenue of guitar playing that most interests them. While emphasis will be on developing skills in playing the guitar, a basic understanding of the principles of music theory as applied to the guitar will also be acquired. While few students will find it possible to master all of the materials presented, an exposure to the many possibilities of musical expression available on the guitar and an understanding of basic music theory will help to broaden the students' perspective and make future musical experiences, such as listening and performing, more rewarding. Each student is expected to have his/her own instrument. A guitar in good working condition is essential. An acoustic classical or steel string is preferred, an electric with a small battery operated amp is acceptable. Students having no previous training on the guitar will find this class most valuable.

57-110 Elective Studio (Voice Class)
Fall and Spring: 3 units
Students enrolled in group voice will gain an understanding of basic vocal technique and a variety of singing styles. Students will learn about proper breathing, tone production and posture. Vocal styles will include pop, jazz, musical theater and classical. Students will also explore harmonization, improvisation and audition techniques for the singer. This class is geared towards the beginning student.

57-111 Movement and Dance I
Fall: 3 units
The CMU School of Music movement curriculum is designed to expose students to various styles and genres of contemporary and traditional forms of dance and movement. Students will increase their technical proficiency and personal artistry in dance in order to expand their physical skills as vocal performance artists. Courses will: Improve students' posture and strength, Increase proficiency in dance vocabulary, Increase ability to recognize, interpret and execute choreography, movement and staging direction, Enhance kinesthetic awareness and physical confidence and Improve overall health. With a focus on creativity and expression in movement, these courses concentrate on using the body as a tool in the creative process. Throughout "Movement and Dance I - IV", courses will include movement fundamentals, modern dance, ballet, partnering, dance composition/improvisation, as well as mini-courses in dance forms which can include stage combat, Flamenco dance, pilates and ballroom dance.
Course Website: https://cmu.box.com/s/8e23hgzsk3e6bj1s7fhj49to2iiizk2 (https://www.andrew.cmu.edu/user/johnito/music_theory/CMUPMMain.html)

57-112 Movement and Dance II
Spring: 3 units
The CMU School of Music movement curriculum is designed to expose students to various styles and genres of contemporary and traditional forms of dance and movement. Students will increase their technical proficiency and personal artistry in dance in order to expand their physical skills as vocal performance artists. Courses will: Improve students' posture and strength, Increase proficiency in dance vocabulary, Increase ability to recognize, interpret and execute choreography, movement and staging direction, Enhance kinesthetic awareness and physical confidence and Improve overall health. With a focus on creativity and expression in movement, these courses concentrate on using the body as a tool in the creative process. Throughout "Movement and Dance I - IV", courses will include movement fundamentals, modern dance, ballet, partnering, dance composition/improvisation, as well as mini-courses in dance forms which can include stage combat, Flamenco dance, pilates and ballroom dance.
Prerequisite: 57-111

57-149 Basic Harmony I
Fall: 9 units
This course deals with common-practice harmony. It includes triads and their inversions, tonality and modality, non-harmonic tones, cadences, and the basic concepts of modulation. Section assignment is determined by a placement test. It includes work on fundamentals for inexperienced students.
Course Website: https://www.andrew.cmu.edu/user/johnito/music_theory/harmonyLand2/HarmMain.html

57-150 Basic Harmony II
Fall: 9 units
This course deals with common-practice harmony. It includes triads and their inversions, tonality and modality, non-harmonic tones, cadences, and the basic concepts of modulation. It includes work on fundamentals for inexperienced students.
Prerequisite: 57-149
Course Website: https://www.andrew.cmu.edu/user/johnito/music_theory/harmonyLand2/HarmMain.html

57-151 Counterpoint in Theory and Application
Fall: 6 units
In Counterpoint in Theory and Application, students begin by learning the traditional five species of counterpoint in a tonal context. They then build on this foundation, learning to analyze music in terms of the underlying counterpoint and to apply this analysis to performance, and producing original tonal compositions in two voices.
Prerequisites: 57-150 or 57-153
Course Website: https://www.andrew.cmu.edu/user/johnito/music_theory/CTPMain.html

57-152 Harmony I
Fall: 9 units
This course deals with common-practice harmony. It includes triads and their inversions, tonality and modality, non-harmonic tones, cadences, and the basic concepts of modulation. Section assignment is determined by a placement test.
Course Website: https://www.andrew.cmu.edu/user/johnito/music_theory/harmonyLand2/HarmMain.html

57-153 Harmony II
Spring: 9 units
This course is a continuation of the study of common practice harmony, exploring dissonant and chromatic harmony.
Prerequisite: 57-152
Course Website: https://www.andrew.cmu.edu/user/johnito/music_theory/harmonyLand2/HarmMain.html

57-161 Eurhythmics I
Fall: 3 units
Dalcroze Eurhythmics is a unique approach to music learning based on the recognition that meaningful rhythmic movement experience, associated with ear-training and improvisation, reinforces understanding of music concepts, enhances musicianship, and focuses awareness on the physical demands of artistic performance. All concepts are experienced in a musical context. Rhythm reading, notation, analysis, and improvisation are integral to the course. Eurhythmics I covers basic binary and ternary metric units and rhythm patterns in relation to these metric units within simple and compound meters.
Course Website: https://cmu.box.com/s/8e23hgzsk3e6bj1s7fhj49to2iiizk2 (https://www.andrew.cmu.edu/user/johnito/music_theory/CMUPMMain.html)

57-162 Eurhythmics II
Spring: 3 units
Eurhythmics II introduces combinations of binary and ternary metric units, mixed meters, changing meters, and notation and performance of cross-rhythms.
Prerequisite: 57-161

57-163 Eurhythmics III
Fall: 3 units
Eurhythmics is a unique approach to music learning developed by the Swiss composer and educator Emile Jaques-Dalcroze (1865-1950). Dalcroze discovered that meaningful rhythmic movement experiences away from their instrument allows students to focus awareness on the physical demands of artistic performance while demonstrating knowledge and understanding of the expressive/interpretive as well as the theoretical aspects of music. Sight reading, conducting, notation, analysis and improvisation are integral to the course. Eurhythmics III Course Content: Divisive vs Additive rhythm, Metric transformation, Irregular subdivisions of metric units, Cross rhythms of 3 against 4, 3 against 5, 4 against 5.
Prerequisite: 57-162
Course Website: https://cmu.box.com/s/8e23hgzsk3e6bj1s7fhj49to2iiizk2 (https://www.andrew.cmu.edu/user/johnito/music_theory/CMUPMMain.html)
Course Website: https://cmu.app.box.com/files/0/f/106285566497
(https://cmu.app.box.com/files/0/f/106285566497/)

57-184 Solfege IV
Spring: 3 units
Continues 57-183 Solfege III. Students learn to read atonal music and practice three-part contrapuntal dictations as well as harmonic dictations. Prerequisite: 57-183

57-185 Advanced Solfege I
Fall: 3 units
This course improves the student’s ability to analyze music aurally and to sing at sight in traditional meters and tonalities using the “fixed do” system. Solfege is the integration of the three cognitive skills: reading music, hearing music, and writing what one hears. Section assignment is determined by a placement test. It includes advanced work for experienced students and those with perfect pitch.


57-186 Advanced Solfege II
Spring: 3 units
Continues 57-185 Advanced Solfege I. Prerequisite: 57-185

57-188 Repertoire and Listening for Musicians
Fall: 1 unit
One of the most important ways of achieving musical excellence is to listen. In this course, students listen critically to essential music which has stood the test of time and to superior performances. This on-line course features listening and discussion in a virtual coffee shop atmosphere. 2-3 hours of listening per week. Proficiency requirement for freshman music majors.

57-190 Repertoire and Listening for Musicians I
Spring: 3 units
One of the most important ways of achieving musical excellence is to listen. In this course, students listen critically to essential music which has stood the test of time and to superior performances. This on-line course features listening and discussion in a virtual coffee shop atmosphere. 2-3 hours of listening per week. Midterm and final listening tests. Proficiency requirement for freshman music majors. Other students admitted with instructor’s permission.

57-191 Keyboard Studies
Fall and Spring: 3 units
All undergraduate music students are required to take four semesters of keyboard studies during their freshman and sophomore years. The emphasis of this course is to develop a practical keyboard facility, which includes keyboard theory and technique, sightreading, solo and ensemble repertoire, transposition, and a variety of creative activities such as harmonization and improvisation.

57-193 Collaborative Piano Skills I
Fall: 3 units
A required course for first year piano majors. The skills include sightreading, basic keyboard harmony, transposition, and improvised accompaniments for popular or musical theater songs from either a piano reduction or a lead sheet. The students participate in collaborative situations such as juries, recitals, and class presentations. The presentations are critiqued by the instructor and by other students.

Course Website: https://cmu.box.com/s/8e23hqszk3e6j1s7fhhy49to2iizk2 (https://cmu.box.com/s/8e23hqszk3e6j1s7fhhy49to2iizk2/)

57-194 Collaborative Piano Skills II
Spring: 3 units
Continues 57-193 Collaborative Piano Skills I. Prerequisite: 57-193
57-208 French Diction
Fall: 3 units
This course is designed primarily for singers specializing in French Art Songs of the 19th and 20th centuries. It deals with the use of the International Phonetic Alphabet, its application to singing in French, the use of the liaison and the preparation of the text of a song or aria. One-third of the course is theory and two-thirds of the course is spent on application by performance with piano accompaniment.
Course Website: https://cmu.box.com/s/8e23hqszk3e6bj1s77hj49to2llizk2
https://cmu.box.com/s/8e23hqszk3e6bj1s77hj49to2llizk2

57-223 German Diction
Fall: 3 units
In-depth study of German diction - development of legato vocal style in German through the analysis of grammatical usage, word construction, vowel colorization and consonant articulation. Included are in-class German diction evaluations, peer assessment, and emphasis on competency in using the International Phonetic Alphabet.
Course Website: https://cmu.box.com/s/8e23hqszk3e6bj1s77hj49to2llizk2
https://cmu.box.com/s/8e23hqszk3e6bj1s77hj49to2llizk2

57-227 Jazz Instrumental Ensemble
Fall and Spring: 3 units
This ensemble incorporates a comprehensive approach to Big Band performance and study. The music performed is drawn from all eras of big band repertoire with occasional programs of specific composers and genres. The ensemble is carefully coordinated with the Jazz Vocal Ensemble and major ensembles in order to challenge and prepare students for professional music career opportunities. The ensemble performs on the regular School of Music concert series (2-3 shows per semester) and for on-campus events. Admission of undergraduate and graduate students is by competitive audition and placement is by the director. Grading is based on attendance, preparation, and consistent progress.
Prerequisite: 57-227
Course Website: https://cmu.box.com/s/8e23hqszk3e6bj1s77hj49to2llizk2
https://cmu.box.com/s/8e23hqszk3e6bj1s77hj49to2llizk2

57-228 Chamber Music: Woodwind and Mixed
Fall: 3 units
Provides an opportunity for students to play in small ensembles, advised by faculty coaches. The performers will develop effective rehearsal techniques, explore chamber music repertoire, deal with issues of intonation and balance, and arrive at interpretive conclusions that are stylistically sound, yet individualistic and creative. A performance is required each semester.
Course Website: https://cmu.box.com/s/8e23hqszk3e6bj1s77hj49to2llizk2
https://cmu.box.com/s/8e23hqszk3e6bj1s77hj49to2llizk2

57-229 Chamber Music: Woodwind and Mixed
Fall and Spring: 3 units
Provides an opportunity for students to play in small ensembles, advised by faculty coaches. The performers will develop effective rehearsal techniques, explore chamber music repertoire, deal with issues of intonation and balance, and arrive at interpretive conclusions that are stylistically sound, yet individualistic and creative. A performance is required each semester.
Course Website: https://cmu.box.com/s/8e23hqszk3e6bj1s77hj49to2llizk2
https://cmu.box.com/s/8e23hqszk3e6bj1s77hj49to2llizk2

57-230 Baroque Ensemble
Fall and Spring: 3 units
Carnegie Mellon Baroque is a performing ensemble of 15-25 players consisting of winds, strings and keyboard. Students in this ensemble explore the orchestral and chamber music of the 18th Century. The Ensemble performs on modern instruments, incorporating performance practice ideals of the Baroque era. Throughout the rehearsal process, students are encouraged to study original source materials and arrive at historically informed and musically satisfying performances.
Course Website: https://cmu.box.com/s/8e23hqszk3e6bj1s77hj49to2llizk2
https://cmu.box.com/s/8e23hqszk3e6bj1s77hj49to2llizk2

57-231 Chamber Ensemble
Intermittent: 3 units
Provides an opportunity for students to play in small ensembles, advised by faculty coaches. The performers will develop effective rehearsal techniques, explore chamber music repertoire, deal with issues of intonation and balance, and arrive at interpretive conclusions that are stylistically sound, yet individualistic and creative. Low Brass Ensemble: The low brass ensemble pushes the boundaries of what is “supposed” to be played by an ensemble of this type. Players will be involved in the programming, arranging and planning of performances and will learn valuable musical, creative, promotional and organizational skills.
57-232 Chamber Music: Guitar
Fall and Spring: 3 units
Provides an opportunity for students to play in small ensembles, advised by faculty coaches. The performers will develop effective rehearsal techniques, explore chamber music repertoire, deal with issues of intonation and balance, and arrive at interpretive conclusions that are stylistically sound, yet individually and creative.
Course Website: https://cmu.box.com/s/8e23hqs6j3e6bj1s7fhhj49to2ilizk2 (https://cmu.box.com/s/8e23hqs6j3e6bj1s7fhhj49to2ilizk2/)

57-233 Sonatas
Fall and Spring: 3 units
This course focuses on coaching of performance groups with two members. It parallels Chamber Music, which focuses on coaching of performance groups with three or more members.

57-234 Performance for Composers
Fall: 3 units
This course is for composition majors who choose to fulfill the performance elective requirement in the junior year by completing an independent performance project in the fall semester. Examples of projects can include producing a recital of his/her compositions, or pursuing other performing interests, such as writing music for a School of Drama production. Registration by composition faculty permission only.

57-236 Performance for Composers
Spring: 3 units
This course is for composition majors who choose to fulfill the performance elective requirement in the junior year by completing an independent performance project in the spring semester. Examples of projects can include producing a recital of his/her compositions, or pursuing other performing interests, such as writing music for a School of Drama production. Registration by composition faculty permission only.
Prerequisite: 57-234

57-240 Acting I
Fall: 3 units
The basics of acting will be established throughout the first year following the guideposts described in Audition, by Michael Shurtleff. Structured improvisations, monologues, scene work, songs, and arias will provide a platform for the development of stage presence and effective communication. Each semester will finish with a group project that provides an opportunity for the students to begin to work together as a cast.

57-241 Acting II
Spring: 6 units
Continues 57-240 Acting I. Prerequisite: 57-240

57-257 Orchestration I
Fall: 6 units
This class will be an in-depth analytical study of music from the 20th and 21st centuries. It will emphasize selected genres and forms by representative composers in order to trace the evolution of musical style, to clarify the main characteristics of these periods, to set the musical developments in broader cultural contexts, and to apply this knowledge to practical decisions made by today's musician.

57-258 20th-21st Century Techniques
Spring: 6 units
This course is open to all music majors and required for sophomore composition majors. The most important techniques from Debussy to the present will be reviewed in terms of melody, harmony, and form. Tonalities, serialism, and aleatoric devices will be studied. Compositional techniques of the 20th Century are put into perspective and compared with other developments in the arts. The class is conducted as an open forum in which discussions are encouraged.
Prerequisite: 57-156 or 57-150 or 57-153

57-273 Piano Pedagogy I
Fall: 6 units
This course offers an historical overview of piano pedagogy including its significant developments over the past forty years. Topics covered include beginning piano techniques, the sequencing of concepts and materials, common problems among beginning pianists, practicing, motivation, and parental involvement. Current representative beginning piano methods will be surveyed.
Course Website: https://cmu.box.com/s/8e23hqs6j3e6bj1s7fhhj49to2ilizk2 (https://cmu.box.com/s/8e23hqs6j3e6bj1s7fhhj49to2ilizk2/)

57-274 Piano Pedagogy II
Spring: 6 units
Beyond the beginning years: this course covers piano pedagogy of intermediate and early advanced level students. Topics include "What is a good piece?" Standard literature and technical development repertoire lists will be studied. The business of piano teaching and the instruction of college keyboard skills for non-piano majors will be discussed.
Prerequisite: 57-273

57-275 Piano Pedagogy III
Fall: 6 units
Continuation of 57-274. Intermediate literature, analysis, teaching, and performance will be covered. Topics include "What is style?"
Prerequisite: 57-274
Course Website: https://cmu.box.com/s/8e23hqs6j3e6bj1s7fhhj49to2ilizk2 (https://cmu.box.com/s/8e23hqs6j3e6bj1s7fhhj49to2ilizk2/)

57-276 Piano Pedagogy IV
Spring: 6 units
Continuation of 57-275. Early advanced literature, analysis, teaching, and performance will be covered.
Prerequisite: 57-275

57-283 Music History I
Fall: 9 units
This course will be an in-depth analytical study of music of the Medieval, Renaissance, and Baroque periods. It will emphasize selected genres and forms by representative composers in order to trace the evolution of musical style and to clarify the main characteristics of these periods, to set the musical developments in broader cultural contexts, and to apply this knowledge to practical decisions made by today's musician.

57-284 Music History II
Spring: 9 units
This course will be an in-depth analytical study of music of the Classical and Romantic periods. It will emphasize selected genres and forms by representative composers in order to trace the evolution of musical style, to clarify the main characteristics of these periods, to set the musical developments in broader cultural contexts, and to apply this knowledge to practical decisions made by today's musician.
Prerequisite: 57-283
Course Website: https://cmu.box.com/s/8e23hqs6j3e6bj1s7fhhj49to2ilizk2 (https://cmu.box.com/s/8e23hqs6j3e6bj1s7fhhj49to2ilizk2/)

57-285 Music History III
Spring: 9 units
This course will be an in-depth analytical study of music from the 20th and 21st centuries. It will emphasize selected genres and approaches by representative composers in order to trace the various threads of musical style, to clarify the main characteristics of the period's music, to set the musical developments in broader cultural contexts, and to apply this knowledge to the lives and musical practices of musicians today.
Prerequisites: 57-283 and 57-284

57-289 Repertoire and Listening for Musicians II
Fall: 6 units
This is a continuation of the School of Music's four-semester listening curriculum. Students listen critically to essential music which has stood the test of time and to superior performances. This semester's repertoire includes units focusing on contrapuntal masterpieces from the Middle Ages through 20th Century, and further builds score-reading experience. This on-line course features listening and discussion in a virtual coffee shop atmosphere. 2-3 hours of listening per week. Midterm and final listening tests. Proficiency requirement for sophomore music majors. Other students admitted with instructor's permission. Repertoire and Listening for Musicians I and II are not prerequisites.
57-290 Repertoire and Listening for Musicians III
Spring: 3 units
This is the culmination of the School of Music's four-semester listening curriculum. Students listen critically to essential music which has stood the test of time and to superior performances. Highlights of this semester’s repertoire include units on Middle and Late Beethoven as well as a decade-by-decade survey of the 20th Century. This on-line course features listening and discussion in a virtual coffee shop atmosphere. 2-3 hours of listening per week. Midterm and final listening tests. Proficiency requirement for sophomore music majors. Other students admitted with instructor's permission. Repertoire and Listening for Musicians II are not prerequisites.

57-293 Keyboard Studies Test (Degree)
Fall and Spring
This is the keyboard proficiency test which is a requirement for all undergraduate music majors who are not piano majors.

57-294 Beginning Piano Test
Fall and Spring
This is the keyboard proficiency test which is a requirement for all music minors. To take the test, email the beginning piano instructor, Carla LaRocca, to schedule a time.

57-300 Advanced Bagpipe and Drum Band
Fall and Spring: 3 units
The Pipe Band at Carnegie Mellon is a competitive Grade 3 band in the Eastern United States Pipe Band Association. The band competes at various Scottish festivals and Highland Games during the school year. The band also performs at university activities throughout the year. These include Convocation, Homecoming, Spring Carnival, and Commencement. Other engagements are Spring Concert at CMU and the St. Patrick's Day Parade in Pittsburgh. The band has also played as an opening act for the Pittsburgh Steelers and a Rod Stewart concert. Prerequisite: 57-299

57-301 Bagpipe History
Intermittent: 3 units
This course covers all types of bagpipe music, including Ceol Mor and Ceol Beag, and studies the prominent composers from MacCrimmon to the present day. Students compose their own material in all time signatures commonly used. The course covers Piobaireachd, Marches, Strathspeys, Reels, Hornpipes, and Jigs, as well as harmony and the ability to write out tunes from repetitive listening.

57-303 Bagpipe Literature and Repertoire
Intermittent: 3 units
This course will cover the origins of the bagpipe and Piobaireachd, bagpipe music in competition, military, and dance. We will also cover major piping competitions, famous bagpipe players, and piping today.

57-304 Bagpipe Maintenance
Intermittent: 3 units
All aspects of bagpipe maintenance are covered in this course, from basic humping and tying in bags to reeds set-up and manipulation. The course includes study of all types of reeds, cane and synthetic, as well as drone and chanter, and recognition of pipemakers' patterns and distinctive hallmarks.

57-305 Bagpipe Reedmaking
Intermittent: 3 units
This is a hands-on course where the student learns how to make pipe chanter reeds by the traditional method of gouging, shaping, and tying up. This course follows 57-304, Bagpipe Maintenance. Further analysis of chanter and drone reeds will be covered also. Prerequisite: 57-304

57-306 World Music
Fall: 9 units
A study of major musical traditions from around the world, including classical music from Asia (broadly defined) and the Middle East, as well as traditional musics in Africa, Europe, and the Americas. This course will examine music in its socio-cultural context, and will demonstrate how learning about music from diverse cultures increases cross-cultural understanding. This course will engage with readings, listening examples, multi-media presentations, in-class discussions, music-making activities, and special guests (virtual and in person).

57-307 Bagpipe Theory
Intermittent: 3 units
This course prepares students for 57-302, Bagpipe Construction. All aspects of Bagpipe Theory are covered, including time signatures, grand staff, musical rudiments, musical terms and definitions, and writing of simple tunes from memory.

57-313 Topics in Movement and Dance: Techniques
Fall: 3 units
This intermediate level course furthers the dance foundation practiced in the first two years of the School of Music movement curriculum. This modern dance technique class will explore momentum based phrase material, body alignment and release, movement dynamics, inversions and floor work. This course focuses on the information and the tools needed to extend movement technique, skills, and performance quality. Prerequisite: 57-212

57-314 Topics in Movement and Dance: Movement Lab
Spring: 3 units
This intermediate level course will encourage an understanding of dance through the practice of creative improvisation and composition. The course is designed to develop the process of exploration and creation and movement and its performance applications. Prerequisite: 57-212

57-329 Beginning Piano for Minors
Fall and Spring: 3 units
This is a small group lesson for music performance, music composition, music technology, and music theory minors who cannot pass the required beginning piano test.

57-330 Beginning Piano for Minors
Spring: 3 units
This is a small group lesson for music performance, music composition, music technology, and music theory minors who cannot pass the required beginning piano test.

57-331 Principles of Education
Fall: 9 units
This course introduces students to the art and science of being an educator. Content includes views of the academic and social structure of the school, physiological and social characteristics of learners that influence instruction, widely recognized research on learning and teaching, and appropriate and effective class preparation and teaching strategies.

Course Website: https://cmu.box.com/s/8e23hqzsk3e6b1s7hhj49to2lizzk2 (https://cmu.box.com/s/8e23hqzsk3e6b1s7hhj49to2lizzk2)

57-332 Introduction to Conducting
Fall: 6 units
This course develops the basic skills needed to conduct instrumental ensembles or a small orchestra. It is primarily focused on conducting technique, body language and body coordination and communication. It also deals with learning and translating an instrumental or orchestral score into actual music. The goal is to achieve a clear and communicative technique upon which an artistic interpretation can be built. The student works periodically with a pianist or a small chamber ensemble.

Course Website: https://cmu.box.com/s/8e23hqzsk3e6b1s7hhj49to2lizzk2 (https://cmu.box.com/s/8e23hqzsk3e6b1s7hhj49to2lizzk2)

57-333 Band and Choral Arranging
Spring: 6 units
This course presents basic techniques of arranging music for elementary and secondary school choral and instrumental ensembles. Instruments and voices are reviewed for best scoring properties and systematic aural and visual score analyses of repertoire are used to reveal various approaches to scoring ensemble sound.

Prerequisites: 57-150 or 57-153

57-334 Fundamentals of Marching Band
Fall: 3 units
A marching band, due to its visibility and high degree of student involvement, is an integral part of secondary school music programs. The well-schooled music education graduate must have knowledge of this unique form of music performance. This course, designed primarily for those seeking a career in teaching, will accommodate students with no experience and others who have participated in marching band. Among the many areas of concentration will be: philosophy, show charting, marching fundamentals and commands, logistical awareness, and budget formulation. Observation of and active assistance with Carnegie Mellon Kiltie Band will be part of the course content.

Course Website: https://cmu.box.com/s/8e23hqzsk3e6b1s7hhj49to2lizzk2 (https://cmu.box.com/s/8e23hqzsk3e6b1s7hhj49to2lizzk2)
57-336 Instrumental/Choral Conducting  
Spring: 6 units  
This course is a continuation of Introduction to Conducting. The course offers a more detailed conducting technique, adding those subjects related to choral conducting. This is followed by the study and the analysis of interpretation from the point of view of the conductor and ends stressing a set of important practical items, including the psychological attitude and the leadership a conductor must develop as well as the organization and achievement of a fruitful rehearsal technique. The students work periodically with a pianist, a soloist or a chamber ensemble on traditional works and on their own compositions in the case of composition majors. Prerequisite: 57-332

57-337 Sound Recording  
Fall and Spring: 6 units  
Sound Recording (57337, 57947) centers around the Vlahakis Recording Studio in the College of Fine Arts: how the studio works, and how to record various types of music. The method of instruction is to learn by doing, and the goal is to achieve professional-sounding results. Equipment includes a complete 24-track Pro-Tools system, professionally designed control room that can accommodate up to 24 people, outboard preamps and other gear, and an interesting array of microphones. All recording is direct to hard disc. Grading is based on recording projects, class attendance, mastering studio hardware and software, and several quizzes.

57-338 Sound Editing and Mastering  
Fall and Spring: 6 units  
The raw recording is just the first step in the process of creating a professional finished audio product. “Editing” is the art of piecing together different takes to make one final ‘good take.” “Mastering” is the art of polishing the ‘good take’ to perfection—balancing all the instruments and tracks, adding special effects, setting final levels. If ‘recording’ seems like an high-energy activity—‘involving engineers, musicians, producers—‘editing and mastering’ are the necessary counterparts—long tedious hours of solitary confinement honing the skills of the mastering engineer. Those taking this course are expected to have significant music skills; actively playing a musical instrument (or composition), and/or the ability to read a piano score at the least, and a full orchestra score from any recent century, including our own, at the most. Class attendance is essential; work outside of class is necessary. Prerequisites: 57-342 or 57-341 or 57-337

57-339 Acting III  
Fall: 6 units  
This course will build upon the foundation laid in the first year, with a more concentrated look at scene work, an audition workshop that focuses on cold readings as well as monologues, and a character-development project that works to identify specific issues that inhibit freedom on stage. More in-depth work on songs and arias will lead into a musical scene project. The semester works to identify specific issues that inhibit freedom on stage. More in-depth work on songs and arias will lead into a musical scene project. The semester will close with a classical text project in which the students will work with verse. Prerequisite: 57-241


57-340 Acting IV  
Spring: 6 units  
Continues 57-339 Acting III. Prerequisite: 57-339

57-343 Music, Technology, and Culture  
Intermittent: 9 units  
Music has been a part of our individual and communal lives for 40,000 years. We developed the technology to record and playback music for about 140-years ago. In this seminar we will study the relationship of music, technology and culture from a variety of disciplinary approaches including science and technology studies, musicology and ethnomusicology, neuroscience, sound studies, critical race and ethnicity studies, political economy, cultural studies and media archaeology. The course will focus on the impact mediating technologies like vinyl, cassette tapes, mp3s, film and television, the development of music journalism and of course live human performance have had on our social, political and personal interactions with music. We have built the course around case studies that illustrate the intersection of music, technology and culture such as audio analgesia devices, movie soundtracks, streaming services, the rise of internet “listicles” and other crucial moments in twentieth and twenty-first century musical culture. Students in this course will develop critical projects that cross technological, humanistic, and musical boundaries. We hope that students come away from this class with better a host of critical tools to better think about what music means to us and how mediating technologies redefine these meanings.

57-344 Experimental Sound Synthesis  
Intermittent: 9 units  
This is a course that will guide students into the world of experimental approaches to music and sound production, with particular emphasis in some of the key practices and concepts developed in the 20th and 21st centuries. We will examine a variety of ways in which sound works are made and perceived; understanding the historical perspectives and critical viewpoints of each approach through the application of hands-on practicum. The topics covered in the course are divided into three large areas: the art of sound, the use of technology in the production of sound works, and the creation of interdisciplinary sound installation. Students from different disciplines will work together to collaborate on the designing, prototyping and execution of a series of ambitious projects in response to the topics covered in class.

57-345 Hacking the Music World  
Fall and Spring: 9 units  
In this course we will perform a series of real-world experiments that examine new models for music creation, promotion, and distribution. We will produce original music videos, explore social media marketing and optimization, examine new platforms for monetization, and officially release digital albums and apps. The proliferation of digital music distribution has revolutionized how music is experienced in the 21st century. Technologies for music listening, music sharing, and music discovery are in a state of rapid and limitless evolution. There is no longer a single model for a rewarding life in the world of music?we must learn to adapt to the constantly evolving landscape of the 21st century. We must hack the music world! While examining different approaches to distribution and publication, we will also explore the question of how electronic media is redefining our understanding of music-making itself. Does a new album necessarily need to be a fixed set of sound recordings? What if it was a mobile app that reacts to the listener’s environment? What if our new album used mutating algorithms to generate new musical experiences every time the listener hits play? Throughout the semester we will form teams combining musicians, software programmers, artists, and entrepreneurs. Our teams will work together to produce new music, to design new music distribution methodologies, and to perform social media experiments that enhance the viability of our work. Students participating in the course should have proficiency in one or more of the following areas: Social Media Optimization, Music Recording or Video Production, Leveraging Web Application APIs, Mobile Application Design and Implementation. Prerequisites are the IDEATe portal courses or permission of the instructor. Please note that there will be a lab usage fee associated with this course. Prerequisites: 18-090 or 60-223 or 16-223 or 62-150 or 15-104

57-347 Electronic and Computer Music  
Fall: 6 units  
This course builds on the concepts learned in Introduction to Music Technology (57-101) and gives added knowledge in the areas of composition using digital and analog devices as well as various computer programs. Building computer models of both analog and digital synthesizers as well as drum machines, loop players and various other sound processing effects will be covered in detail. Students will be required to produce several projects throughout the course demonstrating their understanding of various concepts in electronic music. More emphasis is placed on the overall quality of the end musical product than on 57-101 in order to prepare students for music production in a professional setting. Prerequisites: 57-101 or 57-171

Course Website: https://cmu.box.com/s/sbe23hgszk3e6bj1s7hhj490zllikz2 (https://cmu.box.com/s/sbe23hgszk3e6bj1s7hhj490zllikz2)

57-349 Supervised Theory Teaching  
Fall and Spring: 6 units  
This course provides teaching skills in theory for students who have already completed the theory program at Carnegie Mellon University or who have demonstrated theory competence. The students will attend all sessions of the assigned theory class and will assist the professor by correcting homework, delivering a short lecture, developing a class syllabus and tutoring individual students. The work is done under direct supervision and advice from the regular professor who is always present in the class. Enrollment limited to a maximum of two students per class.

57-350 Dalcroze Piano Improvisation  
Fall and Spring  
These courses are required for candidates in the Dalcroze Certification program. They are designed to develop keyboard improvisation skills necessary for teaching Eurhythmics.
57-351 Dalcroze Piano Improvisation  
Fall and Spring  
These courses are required for candidates in the Dalcroze Certification program. They are designed to develop keyboard improvisation skills necessary for teaching Eurhythmics. Prerequisite: 57-350

57-352 Dalcroze Piano Improvisation  
Fall and Spring  
These courses are required for candidates in the Dalcroze Certification program. They are designed to develop keyboard improvisation skills necessary for teaching Eurhythmics. Prerequisite: 57-351

57-353 Dalcroze Piano Improvisation  
Fall and Spring  
These courses are required for candidates in the Dalcroze Certification program. They are designed to develop keyboard improvisation skills necessary for teaching Eurhythmics. Prerequisite: 57-352

57-355 Secondary Guided Teaching  
Spring: 3 units  
This course enables students to apply instructional strategies in local secondary school music classes. School visits provide opportunities to work with band, choral, and instrumental ensembles and general music classes. Seminar discussions with the cooperating teachers familiarize students with both school-wide and classroom management issues that affect teaching, learning, motivation, and the administration of music programs. Prerequisites: 57-360 and 57-356 and 57-336 and 57-361 and 57-608 and 57-607 and 57-375 and 57-363 and 57-362

57-356 Elementary Guided Teaching  
Fall: 3 units  
This is the second level of field experience in the public schools. This course provides for observation and closely supervised teaching experiences with elementary age children in a school setting. 
Course Website: https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49to2lilzk2

57-358 Introduction to Electronic Music  
Intermittent: 9 units  
This course will allow students to produce original works of electronic music composition in response to strategic listening assignments presented within their historical context. Students will learn critical listening and analytical skills, and be assessed on their electronic music production as well as on their ability to articulate context and structure. This course is for undergraduate music students. Other students may register for it with the permission of the instructor.

57-359 Career Strategies for Musicians  
Intermittent: 3 units  
This course will assist students in developing the necessary expertise and materials to transition successfully from music student to professional musician. Four major areas will be covered: 1.) The multifaceted activities of today's professional musicians, individual assessments to determine strengths and challenges related to these activities, and strategies for addressing challenging areas; 2.) Developing promotional materials for entrepreneurial and salaried opportunities. Entrepreneurial materials include business cards, letterhead, photo, bio, performance resume, email list, press release, flyers, grant proposals, demo CD and website. Salaried materials include an employment resume and cover letter; 3.) Self-employment considerations, including budgeting, taxes, health insurance, and unions; and, 4.) Communications, including handling auditions, introducing pieces, introducing group members, and pitching ideas. You have the talent, determination, and work ethic to succeed. Now learn the marketing, business and communications skills to close the gap.

57-360 Brass Methods  
Fall: 3 units  
This music education course develops basic brass playing and teaching techniques for beginning and intermediate instrument classes. The course includes training in beginning band program design, aural and visual diagnosis of individual and ensemble playing problems, and methods of accelerating music reading independence in young players. The course requires two off-campus field teaching experiences in local schools. Each field teaching experience will require about 3 hours to complete -- students should allow enough time in their schedules to complete this requirement.

57-361 Percussion Methods  
Fall: 3 units  
This class gives the non-percussion major a background in the fundamentals of teaching percussion. The main focus of the course is snare drum. The students spend most of their time learning the basic concepts of beginning snare drum so they will be prepared to teach beginning students of any grade level. Much time is devoted to proper stance, grip, and stroke in order to insure a good foundation for a beginning student. Also covered are the various mallet instruments, timpani, and all small hand percussion. Students will learn about purchasing proper equipment for the various levels of learning in common school programs.

57-362 Woodwind Methods  
Spring: 3 units  
This music education course develops basic woodwind playing and teaching techniques for beginning and intermediate instrument classes. The course includes training in beginning band program design, aural and visual diagnosis of individual and ensemble playing problems, and methods of accelerating music reading independence in young players. The course requires two off-campus field teaching experiences in local schools. Each field teaching experience will require about 3 hours to complete -- students should allow enough time in their schedules to complete this requirement.

57-363 String Methods  
Spring: 3 units  
String Methods prepares music educators for work in the public schools. A major portion of class time will be applied to violin and cello techniques. Upon completion of the course, the student will be expected to demonstrate the technical skills of a second year beginning string student. Students will also be introduced to various method books, string supplies, and repairs.

57-364 Conducting Practicum  
Fall and Spring: 3 units  
This course provides applied conducting experience for the conducting minor and other students by instructor permission.

57-370 Stage Direction  
Spring: 3 units  
This course provides an internship working with a middle or high school music theater production. Students may participate in coaching, direction, and choreography. In addition, they keep a journal of their experience and submit a final paper describing what they have learned from working with the teachers or professional directors who were responsible for the production. It is suggested that this course be taken during the spring semester when most music theater productions are scheduled.

57-374 Music in the Urban School  
Fall and Spring: 9 units  
This course will involve workshops with nationally known instructors in eurhythmics, world drumming, contemporary popular music, and classroom management. The course will require attendance at workshops, classroom observations and closely supervised teaching experiences. Schools involved are all inner city schools with a poverty level of 75% or above. This course is offered as the result of a grant received from the Federal Department of Education by the School of Music, the Pittsburgh Public Schools, and the Wilkinsburg School District.

57-375 Music in the Elementary School  
Fall: 6 units  
This course is designed to provide a philosophical background for teaching music in the elementary school and to provide a variety of pedagogical techniques, which are essential when teaching music from Preschool through Grade 6. Prerequisite: 57-331 Min. grade C

57-376 Music in the Secondary School  
Spring: 6 units  
This course involves workshops with nationally known instructors inmenu. A majority of class time will be applied to coaching, direction, and choreography. In addition, they keep a journal of their experience and submit a final paper describing what they have learned from working with the teachers or professional directors who were responsible for the production. It is suggested that this course be taken during the spring semester when most music theater productions are scheduled.

57-377 Music in the Elementary School  
Fall: 6 units  
This course is designed to provide a philosophical background for teaching music in the elementary school and to provide a variety of pedagogical techniques, which are essential when teaching music from Preschool through Grade 6. Prerequisite: 57-331 Min. grade C

Course Website: https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49to2lilzk2

57-378 Music in the Secondary School  
Spring: 6 units  
This course is designed to provide a philosophical background for teaching music in the elementary school and to provide a variety of pedagogical techniques, which are essential when teaching music from Preschool through Grade 6. Prerequisite: 57-331 Min. grade C

Course Website: https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49to2lilzk2

57-379 Career Strategies for Musicians  
Intermittent: 3 units  
This course will assist students in developing the necessary expertise and materials to transition successfully from music student to professional musician. Four major areas will be covered: 1.) The multifaceted activities of today's professional musicians, individual assessments to determine strengths and challenges related to these activities, and strategies for addressing challenging areas; 2.) Developing promotional materials for entrepreneurial and salaried opportunities. Entrepreneurial materials include business cards, letterhead, photo, bio, performance resume, email list, press release, flyers, grant proposals, demo CD and website. Salaried materials include an employment resume and cover letter; 3.) Self-employment considerations, including budgeting, taxes, health insurance, and unions; and, 4.) Communications, including handling auditions, introducing pieces, introducing group members, and pitching ideas. You have the talent, determination, and work ethic to succeed. Now learn the marketing, business and communications skills to close the gap.

57-360 Brass Methods  
Fall: 3 units  
This music education course develops basic brass playing and teaching techniques for beginning and intermediate instrument classes. The course includes training in beginning band program design, aural and visual diagnosis of individual and ensemble playing problems, and methods of accelerating music reading independence in young players. The course requires two off-campus field teaching experiences in local schools. Each field teaching experience will require about 3 hours to complete -- students should allow enough time in their schedules to complete this requirement.

Course Website: https://cmu.app.box.com/files/1/f/11681158556/1/f_106285571873
57-377 Psychology of Music
Intermittent: 9 units
Music cognition is an interdisciplinary approach to understanding the mental processes that support musical behaviors, including perception, comprehension, memory, attention, and performance. Like language, music is a uniquely human capacity that arguably played a central role in the origins of human cognition. This course is survey of current approaches to and theories about the perception and cognition of music. Topics covered include psychoacoustics; the cognitive neuroscience of music; relationships between music and language; the nature of musical knowledge; and debates about aesthetics, evolutionary psychology, and musical universals. At the end of this course a student should be able to identify key theories and hypotheses in music cognition as they relate to memory, emotion, physiology, neurology, acoustics, language, and evolution. They will be able to comparatively evaluate hypotheses and place them in an intellectual context. These objectives will be achieved though critical reading, discussions, and written exercises. There are no prerequisites for this course. It will be helpful for you to know some basic elements of music theory (such as the names for chords, Roman numerals, and so on), but some extra help will be available to cover these topics. Some notational basics will be covered in the first lecture.
Course Website: https://cmu.box.com/s/8e23hqqsk3e6bj1s7fhjg49to21Ilzk2

57-378 Introduction to Music Cognition Research
Intermittent: 9 units
This course explores the roles of cognitive processes in the experience of music with a focus on carrying out a collaborative laboratory project in order to understand first-hand the challenges of the experimental study of music. In readings, lectures, readings, discussions, and demonstrations we will become acquainted with the relevant psychological theories of perception, memory and learning, and review and critically analyze selected experimental findings on the psychology of music. We will examine the use of psychological principles (e.g. Gestalt laws of perception, limitations on working memory, categorical perception, chunking, schemas, modularity) to explain musical phenomena. The emphasis will be on applying an experimental approach to music perception and cognition, but we will also consider ongoing debates about larger issues (such as musics adaptive value to the human species, and the determinants of musical taste).
Prerequisite: either Harmony 1 or Intro to Cognitive Psychology.
Prerequisites: 85-211 or 57-152 or 57-149

57-381 Collaborative Piano I
Fall and Spring
This class is the first in a series of hands-on courses which allow the student to accumulate experience accompanying in a professional venue. Students will be assigned to a vocal and/or instrumental studio and will have the opportunity to coach repertoire with a professional accompanist. Assignments may include playing for instrumental juries. This course requires basic keyboard proficiency.
Course Website: https://cmu.box.com/s/8e23hqqsk3e6bj1s7fhjg49to21Ilzk2

57-382 Collaborative Piano II
Fall and Spring
Continues 57-381 Accompanying I.
Prerequisite: 57-381
Course Website: https://cmu.box.com/s/8e23hqqsk3e6bj1s7fhjg49to21Ilzk2

57-383 Collaborative Piano III
Fall and Spring
Continues 57-382 Accompanying II.
Prerequisite: 57-382
Course Website: https://cmu.box.com/s/8e23hqqsk3e6bj1s7fhjg49to21Ilzk2

57-384 Collaborative Piano IV
Fall and Spring
Continues 57-383 Accompanying III.
Prerequisite: 57-383
Course Website: https://cmu.box.com/s/8e23hqqsk3e6bj1s7fhjg49to21Ilzk2

57-385 Collaborative Piano V
Fall and Spring
Continues 57-384 Accompanying IV.
Prerequisite: 57-384
Course Website: https://cmu.box.com/s/8e23hqqsk3e6bj1s7fhjg49to21Ilzk2

57-386 Collaborative Piano VI
Fall and Spring
Continues 57-385 Accompanying V.
Prerequisite: 57-385
Course Website: https://cmu.box.com/s/8e23hqqsk3e6bj1s7fhjg49to21Ilzk2

57-391 Keyboard Studies (Music Ed)
Fall and Spring: 3 units
This course develops piano skills necessary for work in the elementary and secondary schools. Special emphasis is placed on transposition, score reading, harmonization and sight-reading. This course is required for all music education majors.
Prerequisite: 57-191

57-392 Keyboard Studies (Music Ed)
Fall and Spring: 3 units
Continues 57-391 Keyboard Studies V. This course is required for all music education majors.
Prerequisite: 57-391

57-393 Keyboard Studies Test (Music Ed)
Fall and Spring: 3 units
This is the keyboard proficiency test which is a requirement for all undergraduate music majors who are music education minors.

57-398 Music-Cinema-Culture
Intermittent: 9 units
The first 100 years of the 20th Century's only original art form, whose advent has brought about tremendous social and cultural changes. Students view selected films, learning first the basics of film theory, cinema's working structures and the function of music. Ultimately, they are able to analyze, in the form of a written essay, the function and value of the music in a particular film and the impact such music has had on society.

57-403 Yoga for Musicians
Fall: 3 units
TBA
Course Website: https://cmu.box.com/s/8e23hqqsk3e6bj1s7fhjg49to21Ilzk2

57-404 String Quartet: A Social History
Intermittent: 9 units
The string quartet at once a medium and a genre, even a form which for more than two hundred years has had a special, unparalleled place in Western music. This course examines the development of the string quartet - from its function as an intimate and conversational social setting for amateurs, to its role as a secret repository of composers' most daring thoughts. The string quartet repertoire under discussion spans the first attempts at string quartet writing in the 17th Century, to serialism and microtonal disintegration in the 1960s, to contemporary Pop-Rock fusion experiments. This course also deals with the social and personal histories of four individuals who freed themselves from hegemonic orchestral rules in favor of an instrumental democratic microcosm. The program analyzes great music performed by the greatest quartets.

57-405 Concerto: Virtuosity and Contrast
Intermittent: 9 units
The Concerto, one of the most popular forms of music, is also a dramatic form, a drama of contrast between the strength of one body of sound and another (volume), between one type of sound and another (tonal distinction), between the individual and the masses, and finally, between the "Solo" virtuoso and the less gifted "Tutti" players. The goal of this course is to examine the greatest concerti written for all instruments; from Vivaldi's "Concerto for Two Mandolins" to John Adams's "Grand Pianola Music," and much more, while dealing with the social and personal histories of unforgettable virtuosos and the concerti that became their "Battle Horses."
The program analyzes great concerti performed by the world's greatest soloists and orchestras.
Course Website: https://cmu.box.com/s/8e23hqqsk3e6bj1s7fhjg49to21Ilzk2
School of Music Courses

57-408 Form and Analysis
Spring: 6 units
This course provides a working understanding of all styles and genres of Western classical and contemporary repertoire. Students will explore various aspects of the compositional process, from basic organizational structures to the details of individual musical phrases. They will learn to see and to hear the most important compositional features of a piece of music and will develop a deeper understanding of the music they perform, conduct, and compose.
Prerequisites: 57-153 or 57-150

57-409 Puccini’s Operas
Intermittent: 9 units
Standing between the 19th and 20th Centuries, Puccini witnessed extraordinary socio-political and cultural shifts sweeping across Europe. His operas reflect such changes through their gradual stylistic adherence to modernity. From theatrical and literary plots to complex relationships with poets, publishers, impresarios, singers, conductors, and political censors, Puccini’s operas offer excellent grounds for interdisciplinary dialogue and cultural analysis.

57-412 Opera Since Wagner
Intermittent: 9 units
In the 400-year arc of opera history, the last 125 years have seen the genre’s apogee, perigee, and current renaissance. Between the Wagnerian age of the late nineteenth century and today’s vogue for both opera and “popera,” new opera production slowed greatly in the third quarter of the last century as composers rejected its traditions and audiences turned increasingly to rock and pop. In this course, we will survey this trajectory by viewing and analyzing eight repertory staples: Wagner Parsifal Debussy Pellèas et Mélisande Puccini Turandot Berg Wozzeck Gershwin Porgy and Bess Britten Peter Grimes Messiaen Saint François d’Assise Reich Three Tales We will also become acquainted with other works related to these staples, from Strauss to Saariaho and Tan Dun, and ask numerous questions. What can these operas’ characters and techniques tell us about late modern subjectivity? What happened to the great national traditions? In what musical styles has opera flourished and languished? How have audiences changed? How has the notion of opera itself changed, from the nature of its heroes and heroines to its performance forces and media? The goals of this course are to 1) promote intimate knowledge of the eight core operas; 2) encourage familiarity with numerous related opera plots, opera composers, and twentieth- and twenty-first-century musical styles; 3) broaden literary and musical analytical tools to include historical, aesthetic, and (multi)cultural perspectives on opera; and 4) improve oral and written communication skills about opera. Requirements: Attendance at opera screenings, readings, quizzes, small written assignments, and a 17 to 20-page research paper on an opera of your choice written since 1850.
Prerequisite: 57-284

57-413 The Interpretation of Music
Intermittent: 6 units
What does it mean to “interpret” music? How does performance differ from interpretation? How do we distinguish a good interpretation from a bad one? To answer these questions, this course examines Metaphor, History, Influence, Meaning, Analysis, Performance, Musicology, and other concepts, applying them to works like the Mendelssohn Violin Concerto, Chopin’s Fantasie Impromptu, Beethoven’s “Ghost” Trio, and Debussy’s “Voiles.” Our readings draw mainly from Lawrence Kramer’s Interpreting Music (2011). Our goal is to appreciate the complexity and nuance inherent in the process of music making and to formulate our individual values in the interpretation of music.

57-414 Music and Nature
Intermittent: 9 units
Musicians and philosophers have long explored the rapport between music and nature, tracing music’s origins alternatively to nature and human culture and defining nature differently according to their time and place. This course will examine the opposition between nature and culture through both musical compositions and philosophical writings. We will study theories of the origin of music (from Lucretius to biomusicology), theories of music that seek justification by appealing to nature (from Boethius to Grisey), and theories that question whether natural sounds can be music. We will also examine musical representations of place, weather, and animals through the perspectives of ecocriticism and notions of the pastoral. Repertory will include Vivaldi’s “Spring” Concerto, Beethoven’s “Pastoral” Symphony, Wagner’s Ring of the Nibelung, Mahler’s Symphony No. 3, and Debussy’s La Mer. We will compare landscapes by Sibelius and Copland, birds by Dvorak, Bartók, Ravel, Stravinsky, and Messiaen, and whales by Crumb and Hovhaness. We will also treat statements on the environmental crisis by composers Harrison Birtwistle, Philip Glass, Peter Sculthorpe, and John Luther Adams. Reading, listening, discussion, 2 short papers, 1 long paper, oral presentation.
Prerequisite: 57-285

57-415 Mozart Operas
Fall: 6 units
In the genre with the highest stakes and the highest failure rate, Mozart composed the earliest operas to have staked a permanent place at the center of the repertory. This course seeks to account for his success, to explain why he succeeded where others failed and what has made his operas beloved for over 225 years. We begin with a brief overview of all of Mozart’s operas and discuss the types of opera in circulation in late 18th century Austro-Hungary, especially opera seria, opera buffa, and Singspiel, and the pressures that shaped the music and libretto of each production, from the type of patronage to the style of recitative. Then we examine The Marriage of Figaro, Don Giovanni, and The Magic Flute at a pace of about one act per class session, looking at poetry, dramaturgy, stagecraft, acting, performance practice, character development, theme, and politics, always through the filter of Mozart’s music, especially its melody, reform elements, blurring of genre and affect, vocal counterpoint, use of topics, and musical symbolism.
Prerequisite: 57-285

57-416 Globalization of Classical Music: USA, Turkey, Japan
Intermittent: 6 units
What sounds are made when cultures clash? What issues are at stake when composers and performers approach music with strong ties to music of other cultures, such as Debussy’s Iberia and Copland’s El Salon Mexico, or when, like Bartok, they introduce elements of a stylized folk music into the concert hall? How did the Western classical tradition come to be mastered in countries worldwide? Where is it resisted and why? When composers from non-Western traditions engage with classical traditions, what do they give up and what do they gain? In what ways do they seek to retain style traits or instruments from their home country? and why? Do countries all adopt this tradition in the same way and for the same reasons? How do such varied negotiations of cultures define national identities? This course addresses such questions by focusing on the role of Western classical music in the history of the United States, Turkey, and Japan - countries with very different histories of engaging with European culture, yet sharing a decisive adoption of European-based modernity in the twentieth century.
Prerequisite: 57-285

57-417 Major Vocal Performance Ensemble
Fall and Spring: 6 units
There are two choral ensembles. Concert Choir is a select ensemble of approximately 40 voices of superior vocal/musical talent and experience in the choral idiom. Performance requirements are more stringent than those of the Repertory Chorus. Repertory Chorus is an ensemble of undetermined size. Emphasis is placed on vocal technique and development, musical skills in the rehearsal with minimum performance requirements. Audition required.
57-418 Major Instrumental Ensemble
Fall and Spring: 6 units
There are two instrumental ensembles: Orchestra and Wind Ensemble. Rotating seating plans, within and between ensembles, will prevail at the discretion of the Director of Orchestral Studies and the Director of the Wind Ensemble. The instrumental faculty will be consulted. All music majors who are required to enroll in an instrumental ensemble must audition for placement and enroll in Major Instrumental Ensemble. Audition required. Section B: The Remote Performance Ensemble is a group dedicated to the collective performance of music in remote contexts. Remote performance develops a musical practice that transcends the boundaries of in-person collaboration and develops new musical knowledge about virtual and asynchronous performance spaces. The group will perform works by new and established composers and will create new arrangements of works for which traditional scores may not currently exist. The overall goal of the ensemble is to dislodge the idea of music from traditional physical performance spaces and create a new virtual performance practice. In so doing we shall advance student skills in music performance, music technologies, music appreciation, and create new knowledge about the future of concert music. RPE is required for undergraduate and graduate instrumental majors studying remotely and fulfills the Major Instrumental Ensemble requirement. Non-remote students can register for RPE by permission of the instructors as an elective.

Course Website: https://cmu.box.com/s/8e23hqszsk3e6bj1s7fhhj49to2liizk2 (https://cmu.box.com/s/8e23hqszsk3e6bj1s7fhhj49to2liizk2)

57-420 Jazz Vocal Ensemble
Fall and Spring: 3 units
A highly selective group of mixed voices who perform contemporary jazz and pop vocal arrangements. Open to all CMU students. Audition required. Prerequisite: 57-420

57-421 Exploded Ensemble
Fall: 6 units
The Exploded Ensemble is a group dedicated to the performance of music that pushes the boundaries of traditional performance and composition. The ensemble has a strong emphasis on electro-acoustic performance technique, experimental approaches to staging and amplification, and visuals (live video, computer controlled lighting, wearable technology, etc.). The group will perform works by new/experimental/electro-acoustic composers and will create new arrangements of works for which scores may not currently exist - for example, music by rock bands, electronic musicians, and sound artists. The overall goal of the ensemble is to explode the idea of traditional concert music performance. In so doing we shall advance student skills in music performance, music appreciation, and advance the very important conversation on the future of concert music. For undergraduate and graduate students. Registration is by special permission after an audition and interview.

Course Website: https://courses.ideate.cmu.edu/57-421 (https://courses.ideate.cmu.edu/57-421)

57-422 Repertoire Orchestra
Fall and Spring: 3 units
This course thoroughly acquaints participants with the standard works one would expect to encounter as part of a career as an orchestral player. Assigned repertoire will be read each class session. All students are eligible to register for this course by special permission. Students who are not placed in the Carnegie Mellon Philharmonic are given priority for registration.

57-424 Percussion Ensemble
Fall and Spring: 3 units
This ensemble is open to all percussion majors.

57-425 Expanded Music Performance
Intermittent: 9 units
In his 1970 manifesto Expanded Cinema, Gene Youngblood presented the idea that emerging video technology would lead to a new form of cinematic expression in which art and life are united. In this course we will explore this idea in the realm of music through the creation of new technologies that will expand the possibilities of live performance. The technologies we develop will be used in a series of public concerts by CMU's Exploded Ensemble, a group of high-caliber musicians dedicated to electro-acoustic performance of avant-garde concert music. The course will work closely with the Exploded Ensemble to develop innovative technologies that will transform the music the group performs. These transformations may take place in many different modalities. In the realm of sound we will investigate several areas: the development of new software for sound processing and synthesis, the creation of new instruments, and experimental methods of sound amplification and distribution. In the visual realm, we will develop software for live video performance, will investigate experimental techniques for video projection including mapping and the use of depth cameras, and will develop tools for computer controlled lighting systems. In the physical realm we will develop wearable technologies for performers, sensor-based responsive systems, and will explore experimental approaches to costume and decor.

57-427 Advanced Seminar in Film Musicology
Intermittent: 9 units
This course has been designed primarily for advanced students wishing to apply to film scores analytical methodologies pertaining to historical musicology, cultural studies, and genetic criticism. The films screened and the music analyzed in this course follow at first the historical development of cinema. Then, the syllabus focuses on the film music of Ennio Morricone in honor of his 90th birthday and on final presentations of film soundtracks selected by the students. Prerequisites include some knowledge of music history, theory, practice, or the instructor's permission.

57-428 Theatre Orchestra
Intermittent
Instrumental ensemble which accompanies a production in the School of Drama.

57-429 Beginning Piano for Children I
Fall and Spring: 6 units
This course is the first of two courses in a year-long internship in the piano teaching of young children, combining class and private instruction: a study of the basic teaching/learning process as applied to piano teaching, covering comprehensive step-by-step presentation in reading, rhythm, ear training, sight reading, technique, and musicianship. Under supervision, students will teach the weekly group class and private lessons. Weekly conferences will be held for learning the presentation of materials for class teaching, analyzing pedagogical problems, and developing communication skills with both young pupils and their parents. Prerequisite: 57-273

57-430 Music of Iran
Intermittent: 9 units
The Iranian civilization is one of the oldest continuing civilizations in the world. Music has played an important role in the continuation and preservation of this ancient culture. In this course, the traditional, folk, and contemporary music of Iran will be studied and discussed. The focal point of the course will be the Persian modal system, the Dastgah. Starting with a historical survey of the ancient and medieval Persian music, different aspects of the Dastgah system will be demonstrated and discussed. In addition, religious music and folk music of Iran as well as Iranian contemporary music will be discussed during the course.

57-431 Italian Literature and Repertoire
Intermittent: 9 units
This course provides a bibliography of repertoire in the Italian language. Material will include art songs and cantatas and will be presented via individual student performances in class, listening to recordings and group survey of repertoire. Reading and writing assignments will serve to establish historical perspective as well as programming considerations.

57-432 French Literature and Repertoire
Spring: 3 units
This course examines French songs for solo voice. Representative works from 18th through 20th centuries will be studied in their historical, style and programmatic considerations. Classes consist of individual performance, listening to recordings, and group survey of repertoire. Reading and written assignments establish historical perspective as well as programming considerations.
57-433 Musical Theatre Literature and Repertoire
Fall: 3 units
This course covers music theatre repertoire for two semesters, beginning chronologically with the operetta and concluding with current theatre composers. Each student will be assigned songs to prepare from these musicals. These songs can also be used for music theatre auditions. Students are expected to research all assigned songs and perform them in the proper style. Notebooks must be kept which include all lecture notes, class song assignments and music for songs performed individually.

57-434 Musical Theatre Literature and Repertoire
Spring: 3 units
Continues 57-433 Musical Theatre Literature and Repertoire.
Prerequisite: 57-433

57-435 German Literature and Repertoire
Spring: 3 units
The course examines German repertoire composed for solo voice. Representative works from the Baroque period through the 20th Century are studied in the context of the historical style, vocal demands and programmatic considerations. Repertoire focuses on art songs and cantatas, but also includes certain oratorio excerpts, which are included frequently in recital programs. A bibliography of German repertoire is compiled through individual or group performance of songs, listening to recordings and through research assignments, the latter of which focuses upon the works of specific composers. Reading assignments are included to establish an historical perspective.

57-436 English/Contemporary Literature and Repertoire
Spring: 3 units
The course provides a bibliography of repertoire in the English language. Material will be limited to art songs and will be presented via individual student or group performances in class, and recorded performances. Research assignments will be required for selected anthologies or for works by specific composers. Repertoire will be examined according to vocal requirements, musical style, and programmatic function. The repertoire will consist primarily of works by British and American composers, but works by Russian and Spanish composers will also be included.

57-437 Literature and Repertoire
Fall and Spring: 3 units
This course deals with literature and repertoire for orchestral instruments. There are multiple sections organized by instrument categories or specific instruments.

Course Website: https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49to2liizk2 (https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49to2liizk2)

57-438 Multitrack Recording
Fall and Spring: 9 units
This course builds upon the ideas learned in Sound Recording (57-337), but with an emphasis on close microphone techniques and popular music styles. Students will work in small groups and complete at least two recording projects. $10.00 materials fee.
Prerequisites: 57-342 or 57-341 or 57-337 or 57-357

57-441 Analysis of 19th Century Music
Intermittent: 9 units
This course will provide students with a variety of tools for the analysis of music from Schubert to Mahler and early Schoenberg. The primary emphasis will be on small-scale (chord-to-chord) harmonic organization, on the larger-scale organization of tonal centers, and on form, but other issues will also be explored (e.g., rhythm and meter, text/music relations). The course will sample a wide range of repertoires, including solo piano music, orchestral music, and opera, and it will have a special emphasis on chamber music including the German lied.

57-442 Analytical Techniques
Fall: 9 units
Analytical Techniques is a "Music Support" course for juniors and seniors who have completed the undergraduate core course of study in harmony and counterpoint. This course provides an in-depth knowledge of all styles and genres of Western classical and contemporary repertoire. The course will cover units in harmonic and motivic analysis, Schenkerian analysis, graphic analysis, twelve-tone analysis, set-class theory, rhythmic analysis and other analytical techniques. The primary goal of the course is for students to develop independent skills in analyzing their own repertoire as performers, conductors, composers and teachers.
Prerequisite: 57-408


57-444 Principles of Counterpoint
Intermittent: 9 units
This course explores the development of Western music composed with multiple independent parts. The first half of the course traces the history of part-writing from medieval organum to the twenty-first century. Emphasis is given to study of pre-Baroque and twentieth-century music, and to the conceptual shifts that occurred moving in and out of the common-practice period. The second half of the course examines, across multiple musical styles, specific contrapuntal techniques such as imitation and ground bass forms. Assignments include both writing exercises and analysis, culminating in a term project on a topic selected by the student.
Prerequisites: 57-152 or 57-149

57-445 Counterpoint in 18th Century Composition
Intermittent: 6 units
In this course the student will study how to write two-part counterpoint within the harmonic framework of 18th-century instrumental music. The focus of study will be J.S. Bach's inventions, and writing will be directed towards composing several complete inventions in that style. Prerequisites: Harmony I and Harmony II or permission of the instructor. This course is designed for composers, theory minors, Bach lovers, keyboard majors, and anyone who wants to seriously sharpen their tonal writing skills.
Prerequisite: 57-408

57-446 Renaissance Counterpoint
Intermittent: 6 units
In this course the student will study how to write vocal counterpoint using the classic "species" approach, based on the style of Renaissance masters Palestrina, Lassus, and Victoria. The latter part of the course will extend the study to instrumental music of the 16th century, and explore the development of chromaticism in avant-garde composers of the time. Reading about and listening to Renaissance music and composers will be included as background context for the theory work. Daily writing exercises in the first part of the course will lead to a term project producing a performable piece of music by the end of the semester. This course is designed for composers (both for writing technique and college teaching preparation), theory minors, early music lovers, choral singers and conductors, church musicians, and anyone who wants to sharpen their writing skills.
Prerequisite: Harmony I or permission of the instructor (demonstrated competence in reading treble and bass clef, and intervals).
Prerequisite: 57-408

57-447 Harp Pedagogy
Fall and Spring: 3 units
TBA

57-448 Brass Pedagogy
Fall: 3 units
In this course we introduce the "Art of Teaching". In this case, to teach, develop and encourage young brass players just starting an instrument or who are in their early stages of development. Concepts of basic brass pedagogy will involve the following topics: Music as Metaphor; Teaching young students; Listening; Developing a Concept of Sound; Posture; Breathing; Embouchure; Articulation; Single Tonguing; Multiple Tonguing; Mouthpiece playing; The Warm-up; Slurring; Intonation; The Upper Register; Endurance; Vibrato; Dental Braces; Orchestral Playing; Performance Preparation; Taking Auditions Brass students will leave CMU with a basic understanding of the pedagogical needs and requirements of beginning and inexperienced students, so that they may begin private teaching studio upon graduation.

57-449 Beginning Piano for Children II
Fall and Spring: 6 units
This course is the second of two courses in a year-long internship in the piano teaching of young children, combining class and private instruction: a study of the basic teaching/learning process as applied to piano teaching, covering comprehensive step-by-step presentation in reading, rhythm, ear training, sight reading, technique, and musicianship. Under supervision, students will teach the weekly group class and private lessons. Weekly conferences will be held for learning the presentation of materials for class teaching, analyzing pedagogical problems, and developing communication skills with both young pupils and their parents.
Prerequisite: 57-429

57-450 Audience Development
Intermittent: 6 units
TBA
57-451 Teaching Artist Training
Intermittent: 6 units
This course puts you in a working relationship with experts who serve as teaching artists to inspire people of all ages to engage with music in meaningful ways. You will also learn how to build a successful private studio. For those interested: In Fall 2017 we have been asked to develop and implement a music program for Brightside Academy, a daycare for underserved children in Pittsburgh.

57-452 Collaborative Project in Music Entrepreneurship
Intermittent: 6 units
The project for this semester is to create Azure concerts, a chamber series for families with autism in collaboration with Pittsburgh advocate, Anitra Birnbaum and collaborators at Peabody Conservatory. From the artistic to the business side, we hope to establish a a program that will serve Pittsburgh families and employ CMU alumni for years to come. Prerequisites: 57-453 or 57-454 or 57-457

57-454 The Freelance Musician
Intermittent: 6 units
The world has changed dramatically in the past year, causing a breakdown of the classical music industry as we knew it and opening up new possibilities for musicians to make an impact and thrive. This course will put you in touch with innovative artists, managers, web designers, career consultants, and other professionals who want to help you succeed. There is nothing theoretical about this course: you'll perform "real gigs for real clients" who will offer feedback on your professionalism. You'll build a website with expert support and gain clarity on how music fits into your higher purpose. The objective of this course is to make you "roadworthy" as a professional musician, equipping you with the tools, skills, and mindset that would make people want to work with you again and again. You can think of it in three stages: "building the car" (professional portfolio), "tuning the engine" (communication); and "mapping the route" (strategy) to put you on the road to success. No prior knowledge or experience is required to take this course. You have already spent thousands of hours practicing to become a fine musician. Turning your artistry into a livelihood requires an entirely different skillset, which can be jumpstarted (in only about 50 hours) so let's get going!

57-455 Shaping Time in Performance
Intermittent: 9 units
This course will look at basic questions that performers face: Which level of pulse do I want to feel as the main one? How can I shape a pulse expressively? Which measure in a phrase is felt as a main goal, especially when the phrase contains an unusual number of measures? How can multiple tempi be meaningfully related? Among many important formal arrival points, which are the most important? In addition to these questions, we will also look at recent work on ways in which 18th-century musicians may have understood meter very differently from most musicians today. These alternate perspectives open new possibilities for hearing and shaping the flow of musical time in baroque and classical music. These issues will be pursued from two directions: We will develop simple theoretical tools that can make score analysis a helpful input to the decisions that performers make about such questions. We will also examine audio and video recordings by famous artists to see both how they dealt with these issues and what new questions are raised. Week-to-week work will include reading, listening, and score analysis. Students will write term papers that either use one of the main perspectives developed in class (starting from scores or starting from recordings) or else combine the two. They will also give presentations about their projects to the class.

57-456 Marketing for Musicians
Intermittent: 6 units
What is your message? Who is your audience? How do you reach them? These are among the topics we'll explore in this course. Group projects and case studies help us identify the key aspects of one of the most important aspects of any music career. Being a great musician won't do you any good if no one knows you exist! By the end of the semester, students should be able to understand such concepts as branding, marketing, reach and advertising; identify audience segments and target messages to those segments; create compelling marketing materials, including bios, group and program descriptions, websites and flyers; work with teams to try out a variety of marketing strategies in real-world circumstances; learn to capitalize on social media and use it to effectively build and communicate to an audience; learn to write effective and powerful marketing copy (bios, social media pieces, etc). We examine competitors and market leaders to look for opportunities and best practices.

57-457 Mental training for peak performance
Intermittent: 6 units
Does your best performance happen in the practice room? Would you like to feel more comfortable on stage? Music faculty from every department are collaborating in this course to help you perform at your peak. On the Kresge stage, you will perform regularly for guest musicians, receive feedback and hear about their strategies for overcoming performance anxiety. The course finishes with four weeks of performances for a live audience from CMU's Other Lifelong Learning program. Musicians include Loma McGhee, Pete Sullivan, Alberto Almarza, Sergei Schepin, Craig Knoll, Bill Van der Sloot, and many more.

57-459 Score Reading/Keyboard Harmony
Spring: 6 units
This course is a practical, hands-on learning experience. Students learn by doing and observing other students. All work is done at the keyboard. It is for graduate collaborative piano majors, junior and senior composition majors, and junior and senior conducting minors. Other music majors with good keyboard skills can take this course with instructor permission. Prerequisite: 57-408

57-460 Collaborative Project in Music Entrepreneurship
Intermittent: 6 units
This is an advanced entrepreneurship course, designed to simulate the atmosphere of "real world" project collaborations. You will develop leadership as you work on real projects that make a positive impact in the community. Monique Mead serves as your primary consultant, helping you keep the project on track and connecting you with others who can support your cause. Outside of class time, you will hold planning sessions with team members, perform interviews, and meet with outside collaborators. Project for Fall 2017 is a continuation of Spring 2017: Create a greater sense of community at the School of Music.

57-461 Aural Analysis and Basic Improvisation
Intermittent: 9 units
Where are we now? Musicians often face analytical questions in performing situations. What scale degree is the trumpet playing? What chord are we playing now? What countermelody are the altos singing? What is the form, and where are we in it? The purpose of this course is to enhance students' abilities to answer these kinds of questions in real-time, real-world performance situations, apart from the score. The primary skills developed in the course will be hearing melodic scale degrees, hearing harmonies, memorizing short melodic fragments, identifying short harmonic idioms by ear, hearing two-voice contrapuntal music, and improvising over repeated chord progressions. A variety of conventional and unconventional games and exercises will be employed, involving notating, singing, and using the students' main instruments. We will also put these skills to use in doing larger-scale analysis by ear of longer passages, focusing especially on form, including entire movements. Improvisation comes into the course because perception and production are deeply intertwined; fun improvisation exercises, mostly using the idioms of popular music, will strengthen aural abilities much more than passive identification and dictation exercises could alone. Prerequisite: 57-408

57-463 Eurhythmics for Non-Majors
Fall: 6 units
Rhythm is about time and timing. Dalcroze Eurhythmics is an exploration of the rhythm inside us. Experiencing rhythm through music and movement brings awareness and understanding of our own inner rhythm as well as rhythm in all the arts and beyond. This class is for juniors and seniors only.

57-464 Eurhythmics Applications for Non-Majors
Fall: 6 units
Rhythm is about time and timing. Dalcroze Eurhythmics is an exploration of the rhythm inside us. Experiencing rhythm through music and movement brings awareness and understanding of our own inner rhythm as well as rhythm in all the arts and beyond. This class is for juniors and seniors only.

57-465 Eurhythmics Applications for Performing and Teaching
Fall: 6 units
Rhythm is about time and timing. Dalcroze Eurhythmics is an exploration of the rhythm inside us. Experiencing rhythm through music and movement brings awareness and understanding of our own inner rhythm as well as rhythm in all the arts and beyond. For musicians, meaningful rhythm movement reinforces understanding of music concepts while focusing awareness on the physical demands of artistic performance. This approach to musical problem solving is applicable also to studio and classroom teaching. Prerequisite: 57-164
57-466 Eurhythmics Applications for Performing and Teaching
Fall: 6 units
This is an historical survey of (a) aesthetic theories about music and human agency--music's affects and effects, thus its significance and even its very existence--and of (b) actual utilizations of music. Theories range from Aristotle's catharsis to trauma theory and neuromusicology in our time. The applications range from the biblical David's therapeutic harp playing in the court of King Saul (11th C. BCE) to U.S. interrogators in Iraq (21st C. CE); from Vodun and exorcisms in other cultures to MÚZAK in our own. In short, it's a chronological survey of what peoples have believed about music's powers and, consequently, how music has been used and abused. The dialectic between theory and applications is reflected in the assignments. This seminar is heavy on listening (guided playlists online via Canvas). Writing includes researches and a reviewed feature article. 
Prerequisite: 57-184 or 57-488

57-467 Production: Crew
Intermittent: 3 units
Technical crew for the fully staged production presented by the 57-471 Production: Performance class. Specific repertoire based upon the proficiency of the individual student. 
Prerequisites: 57-212 and 57-340

57-468 Production: Crew
Spring: 3 units
Technical crew for the fully staged production presented by the 57-472 Production: Performance class. Specific repertoire based upon the proficiency of the individual student. 
Prerequisites: 57-212 and 57-340

57-470 Production: Scenes
Spring: 6 units
Preparation of operatic and musical theatre scenes with a public performance of the scenes at the end of the semester. Specific repertoire based upon the proficiency of the individual student. 
Prerequisites: 57-212 and 57-340

57-471 Production: Performance
Fall: 6 units
Preparation of an operatic or musical theatre production at the production. Specific repertoire based upon the proficiency of the individual student. 
Prerequisites: 57-212 and 57-340

57-472 Production: Performance
Spring: 6 units
Preparation of an operatic or musical theatre production at the production. Specific repertoire based upon the proficiency of the individual student. 
Prerequisites: 57-212 and 57-340

57-476 How Music Works: An Affective History
Intermittent: 6 units
This is an historical survey of (a) aesthetic theories about music and human agency--music's affects and effects, thus its significance and even its very existence--and of (b) actual utilizations of music. Theories range from Aristotle's catharsis to trauma theory and neuromusicology in our time. The applications range from the biblical David's therapeutic harp playing in the court of King Saul (11th C. BCE) to U.S. interrogators in Iraq (21st C. CE); from Vodun and exorcisms in other cultures to MÚZAK in our own. In short, it's a chronological survey of what peoples have believed about music's powers and, consequently, how music has been used and abused. The dialectic between theory and applications is reflected in the assignments. This seminar is heavily focused on reading, as well as written and verbal discussion. There is also a long-term field project.

57-477 Music of the Spirit
Intermittent: 6 units
This guided listening course is a musical exploration of spirituality, a musico-cultural and ethnomusical-survey organized around comparative religions. While the majority of repertoire will be from the Western Classical tradition, music of a variety of cultures will be included. The music will be organized by particular religious traditions and by universal themes, such as community, death,afterlife, birth/new birth, martyrs/heroes, transcendence/immarnation, meditation,contemplation,trance, etc. Most course materials, including streaming audio, are online, with one meeting per week in the classroom. Will include participatory introductions to numerous forms of chant. Requires oral and written reports. No prerequisites.

57-478 Survey of Historical Recording
Intermittent: 6 units
The histories of music and technology have long been intertwined. Their symbiosis intensified with the harnessing of electricity in the third wave of the Industrial Revolution. This course will expose you to many of the best practitioners of music. But it will do so with an eye--an ear--towards the media by which we have known them. In short...The music. The personalities. The media. This seminar is heavy on listening (guided playlists online via Canvas). Writing includes researches and a reviewed feature article.

57-480 History of Black American Music
Fall: 6 units
Come and explore the rich musical heritage of Black America. This course will survey the music of Black America beginning with the African legacy and continuing through the music of the Twentieth Century. Class sessions will involve discussions, listening, viewing of films, and reports by students on topics of individual interest. Discussions will involve, historical, cultural and political perspective, as well as the music and composers themselves. Lecturing will be at a minimum. Innovative testing in quiz show format will be used. No prerequisites required. Open to upper level undergraduate students.

57-485 History of the Symphony
Intermittent: 9 units
This course is a study of major symphonic works from 1750 to the modern period. For reasons we will examine, symphonic literature, and the symphony in particular, has long been considered Western art music's greatest monument to its history. Composers have agonized over its composition, conductors have devoted careers to it, and audiences have deeply and zealously expressed their admiration for it. We want to understand why this music is so revered and long-lasting. And we want to understand how the aesthetics of these works have been shaped by their historical, socio-cultural contexts, and how their meaning and value continue to change. Over the course of the term, we will analyze some of the great examples of this genre. We will place them in their historical, socio-cultural contexts with primary sources and insightful academic scholarship. Your critical listening, reading, and thinking skills will be expanded as we delve into almost three centuries of music and writings.

57-487 Advanced Solfege III
Fall: 3 units
Covers the same concepts as Solfege IV in more challenging material, from Bach chorales in open score to excerpts by Bartok, Honegger, Stockhausen, or Boulez. Dictations are three-part contrapuntal and difficult harmonic three and four parts. 
Prerequisite: 57-186

57-488 Advanced Solfege IV
Spring: 3 units
Continues 57-487 Advanced Solfege III. 
Prerequisite: 57-487

57-489 Practice Teaching (Elementary)
Fall and Spring
Experience in working with elementary students in a public school setting. The teaching is supervised by an experienced public school teacher and members of the CMU music education faculty. 
Course Website: https://cmu.box.com/s/0f/11681158556/1/

57-490 Practice Teaching (Secondary)
Fall and Spring
Experience in working with secondary students in a public school setting. The teaching is supervised by an experienced public school teacher and members of the CMU music education faculty. 
Course Website: https://cmu.box.com/s/0f/11681158556/1/

57-491 Solfege for Conductors I
Intermittent: 3 units
TBA 
Prerequisites: 57-184 or 57-488

57-496 BXA Studio
Fall and Spring: 9 units
TBA
A one hour private lesson per week for all music majors.

Fall and Spring: 9 units

57-497 BXA Studio
Fall and Spring: 9 units
TBA
Prerequisite: 57-496

57-498 BXA Studio
Fall and Spring: 9 units
TBA
Prerequisite: 57-497

57-499 BXA Studio
Fall and Spring: 9 units
TBA
Prerequisite: 57-499

57-500 Major Studio (Voice)
Fall and Spring: 9 units
A one hour private lesson per week for all music majors.

57-501 Major Studio (Piano)
Fall and Spring: 9 units
A one hour private lesson per week for all music majors.

Course Website: https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2
(https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2)

57-502 Major Studio (Organ)
Fall and Spring: 9 units
A one hour private lesson per week for all music majors.

57-503 Major Studio (Harp)
Fall and Spring: 9 units
A one hour private lesson per week for all music majors.

Course Website: https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2
(https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2)

57-504 Major Studio (Violin)
Fall and Spring: 9 units
A one hour private lesson per week for all music majors.

57-505 Major Studio (Cello)
Fall and Spring: 9 units
A one hour private lesson per week for all music majors.

57-506 Major Studio (Double Bass)
Fall and Spring: 9 units
A one hour private lesson per week for all music majors.

57-507 Major Studio (Guitar)
Fall and Spring: 9 units
A one hour private lesson per week for all music majors.

Course Website: http://www.music.cmu.edu/pages/insidemusic-coursesyllabi
(http://www.music.cmu.edu/pages/insidemusic-coursesyllabi/)

57-508 Major Studio (Flute)
Fall and Spring: 9 units
A one hour private lesson per week for all music majors.

Course Website: https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2
(https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2)

57-509 Major Studio (Oboe)
Fall and Spring: 9 units
A one hour private lesson per week for all music majors.

Course Website: https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2
(https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2)

57-510 Major Studio (Clarinet)
Fall and Spring: 9 units
A one hour private lesson per week for all music majors.

Course Website: https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2
(https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2)

57-511 Major Studio (Bassoon)
Fall and Spring: 9 units
A one hour private lesson per week for all music majors.

Course Website: https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2
(https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2)

57-512 Major Studio (Saxophone)
Fall and Spring: 9 units
A one hour private lesson per week for all music majors.

Course Website: https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2
(https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2)

57-513 Major Studio (Tuba)
Fall and Spring: 9 units
A one hour private lesson per week for all music majors.

Course Website: https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2
(https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2)

57-514 Major Studio (Saxophone)
Fall and Spring: 9 units
A one hour private lesson per week for all music majors.

Course Website: https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2
(https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2)

57-515 Major Studio (Horn)
Fall and Spring: 9 units
A one hour private lesson per week for all music majors.

Course Website: https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2
(https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2)

57-516 Major Studio (Trumpet)
Fall and Spring: 9 units
A one hour private lesson per week for all music majors.

Course Website: https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2
(https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2)

57-517 Major Studio (Trombone)
Fall and Spring: 9 units
A one hour private lesson per week for all music majors.

57-518 Major Studio (Euphonium/Baritone)
Fall and Spring: 9 units
A one hour private lesson per week for all music majors.

Course Website: https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2
(https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2)

57-519 Major Studio (Tuba)
Fall and Spring: 9 units
A one hour private lesson per week for all music majors.

Course Website: https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2
(https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2)

57-520 Major Studio (Percussion)
Fall and Spring: 9 units
A one hour private lesson per week for all music majors.

57-521 Major Studio (Composition)
Fall and Spring: 9 units
A one hour private lesson per week for all music majors.

Course Website: https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2
(https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2)

57-522 Major Studio (Bagpipe)
Fall and Spring: 9 units
A one hour private lesson per week for all music majors.

Course Website: https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2
(https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2)

57-557 Vocal Methods
Spring: 3 units
This course enables each student to develop a pleasant, healthy, and musically expressive voice and effective vocal pedagogy.

57-558 Observation
Fall and Spring: 3 units
This music education offering is an independent study course designed to introduce students to a range of K-12 instructional practices through observation of elementary and secondary school teachers. Students will identify strategies that impact learning in the areas of pedagogy, student motivation, classroom management, and accommodations for special learners. Students complete this course by arranging 20 prescribed classroom observations in local schools - multiple observations may be completed at each school visit. In order to complete the observations in one semester, students should schedule an open 3-hour time block one day per week between 8 am and 3 pm.

Course Website: https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2
(https://cmu.box.com/s/8e23hqzsk3e6bj1s7fhj49t0t2ilizk2)

57-560 Electronic Music Seminar
Fall and Spring: 3 units
TBA
57-570 Sound and Music Computing Seminar
Fall and Spring: 1 unit
The Sound and Music Computing Seminar is a weekly meeting to discuss topics in the areas of computer music, electronic music, musical acoustics, music perception, music technology, music information retrieval, music interfaces, music systems and software, and music theory. Presentations on these various topics are made by graduate students and faculty. The seminar is open to the University and broader community, but students should only enroll if the seminar is part of their degree requirements.

57-571 Music and Technology Project
Fall and Spring: 12 units
TBA

57-572 Music and Technology Project
Fall and Spring: 12 units
TBA

57-588 Junior Recital Voice
Fall
tba

57-589 Senior Recital Voice
Fall
tba

57-590 Internship
All Semesters
TBA

57-591 Dalcroze Pedagogy/Practice Teaching
Fall: 3 units
This course gives hands-on experience in applying Dalcroze principles in teaching situations. It is designed for students interested in learning about the teaching of Eurhythmics, general Music Education, and for those considering the Dalcroze Certificate. The class will meet in a three week rotation of two Thursday evenings followed by a Saturday morning with the Preparatory School children's classes.

57-593 Vocal Coaching
Fall and Spring
TBA

57-597 Senior Composition Project
Fall and Spring
A composition for orchestra required of all senior composition majors.

57-598 Junior Recital
Fall and Spring
A half recital required of all junior performance majors.

57-599 Senior Recital
Fall and Spring
A full recital required of all senior performance majors.

57-603 Practice Teaching (Elementary)
Fall and Spring
Experience in working with elementary students in a public school setting. The teaching is supervised by an experienced public school teacher and members of the CMU music education faculty. Prerequisites: 57-355 and 57-393

57-604 Practice Teaching (Secondary)
Fall and Spring
Experience in working with secondary students in a public school setting. The teaching is supervised by an experienced public school teacher and members of the CMU music education faculty. Students may choose a vocal or instrumental emphasis in the secondary placement. Prerequisites: 57-355 and 57-393

57-607 Vocal Methods
Spring: 3 units
This course enables each student to develop a pleasant, healthy, and musically expressive voice and effective vocal pedagogy.

57-608 Observation
Fall: 3 units
This music education offering is an independent study course designed to introduce students to a range of K-12 instructional practices through observation of elementary and secondary school teachers. Students will identify strategies that impact learning in the areas of pedagogy, student motivation, classroom management, and accommodations for special learners. Students complete this course by arranging 20 prescribed classroom observations in local schools - multiple observations may be completed at each school visit. In order to complete the observations in one semester, students should schedule an open 3-hour time block one day per week between 8 am and 3 pm.

57-610 Internship
Fall and Spring
A student can receive credit for an unpaid internship in a music related field. The amount of credit is determined by the number of internship hours.

57-611 Independent Study in History
Fall and Spring
Students undertake a critical examination of some aspects of music on an independent basis under the supervision of a full-time faculty member. They choose their topic and contract with the Project Director (faculty sponsor) as to when and how the project will be completed. Open to upperclassmen.

57-612 Independent Study in Theory
Fall and Spring
Students undertake a critical examination of some aspects of music on an independent basis under the supervision of a full-time faculty member. They choose their topic and contract with the Project Director (faculty sponsor) as to when and how the project will be completed. Open to upperclassmen.

57-613 Independent Study in Research
Fall and Spring
Students undertake a critical examination of some aspects of music on an independent basis under the supervision of a full-time faculty member. They choose their topic and contract with the Project Director (faculty sponsor) as to when and how the project will be completed. Open to upperclassmen.

57-614 Independent Study in Performance
Fall and Spring
Students undertake a critical examination of some aspects of music on an independent basis under the supervision of a full-time faculty member. They choose their topic and contract with the Project Director (faculty sponsor) as to when and how the project will be completed. Open to upperclassmen.

57-615 Independent Study in Literature and Repertoire
Fall and Spring
Students undertake a critical examination of some aspects of music on an independent basis under the supervision of a full-time faculty member. They choose their topic and contract with the Project Director (faculty sponsor) as to when and how the project will be completed. Open to upperclassmen.

57-616 Independent Study in Sound Studies
Fall and Spring
Students undertake a critical examination of some aspects of music on an independent basis under the supervision of a full-time faculty member. They choose their topic and contract with the Project Director (faculty sponsor) as to when and how the project will be completed. Open to upperclassmen.

57-617 Independent Study in Electronic and Experimental Music
Fall and Spring
Students undertake a critical examination of some aspects of music on an independent basis under the supervision of a full-time faculty member. They choose their topic and contract with the Project Director (faculty sponsor) as to when and how the project will be completed. Open to upperclassmen.

57-618 Independent Study in Conducting
Fall and Spring
Students undertake a critical examination of some aspects of music on an independent basis under the supervision of a full-time faculty member. They choose their topic and contract with the Project Director (faculty sponsor) as to when and how the project will be completed. Open to upperclassmen.

57-619 Independent Study in Opera
Fall and Spring
Students undertake a critical examination of some aspects of music on an independent basis under the supervision of a full-time faculty member. They choose their topic and contract with the Project Director (faculty sponsor) as to when and how the project will be completed. Open to upperclassmen.
57-620 Independent Study in Solfege
Fall and Spring
Students undertake a critical examination of some aspects of music on an independent basis under the supervision of a full-time faculty member. They choose their topic and contract with the Project Director (faculty sponsor) as to when and how the project will be completed. Open to upperclassmen.

57-621 Independent Study in Eurhythmics
Fall and Spring
Students undertake a critical examination of some aspects of music on an independent basis under the supervision of a full-time faculty member. They choose their topic and contract with the Project Director (faculty sponsor) as to when and how the project will be completed. Open to upperclassmen.

57-622 Independent Study in Sound Recording Production
Fall and Spring
Students undertake a critical examination of some aspects of music on an independent basis under the supervision of a full-time faculty member. They choose their topic and contract with the Project Director (faculty sponsor) as to when and how the project will be completed. Open to upperclassmen.

57-623 Independent Study in Studio Recording Project
Fall and Spring
Students undertake a critical examination of some aspects of music on an independent basis under the supervision of a full-time faculty member. They choose their topic and contract with the Project Director (faculty sponsor) as to when and how the project will be completed. Open to upperclassmen.

57-624 Independent Study in Special Music Project
Fall and Spring
Students undertake a critical examination of some aspects of music on an independent basis under the supervision of a full-time faculty member. They choose their topic and contract with the Project Director (faculty sponsor) as to when and how the project will be completed. Open to upperclassmen.

57-627 Independent Study in Music Entrepreneurship
Fall and Spring
TBA

57-641 Dalcroze Research Paper
Fall: 3 units
Candidates in the Dalcroze Certification Program are required to submit a research paper based on their understanding of Dalcroze principles based on their experience and supported by appropriate literature.

57-642 Dalcroze Research Paper
Spring: 3 units
Candidates in the Dalcroze Certification Program are required to submit a research paper based on their understanding of Dalcroze principles based on their experience and supported by appropriate literature.

57-643 Diverse Populations in Inclusive Settings
Fall: 9 units
tba

57-671 Chamber Music: String Quartet
Fall and Spring: 3 units
Provides an opportunity for students to play in small ensembles, advised by faculty coaches. The performers will develop effective rehearsal techniques, explore chamber music repertoire, deal with issues of intonation and balance, and arrive at interpretive conclusions that are stylistically sound, yet individualistic and creative. A performance is required each semester.

57-672 Chamber Music: Woodwind and Mixed
Fall: 3 units
Provides an opportunity for students to play in small ensembles, advised by faculty coaches. The performers will develop effective rehearsal techniques, explore chamber music repertoire, deal with issues of intonation and balance, and arrive at interpretive conclusions that are stylistically sound, yet individualistic and creative. A performance is required each semester.

Course Website: https://cmu.box.com/s/8e23hqzsk3e6b1s7fhj49to2ilizk2

57-674 Sonatas
Fall and Spring: 3 units
TBA

57-682 Chorus
Fall and Spring: 3 units
tba