## 401 Leadership: Training Management. Counseling, and Unit Management Fall. 3(3-2) P:NM: (MS 302) Army training philosophy. The lieutenant's role in

training management, personnel administration, and logistics. Practical exercises in counseling and training presentations. Practical application of leadership development doctrine. Laboratory includes practical experience in unit administration and training management.

## Military Law, Ethics and Professionalism Spring. 3(3-2) P:NM: (MS 401)

Introduction of the military legal system and the Law of War. The basis of the military profession and the importance of ethical development to the profession of arms. Development of subordinates. Laboratory includes practical exercises in professional development and leadership opportunities.

## Independent Study in Military Science

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course. R: Open only to juniors or seniors. Approval of department.

Individual research in areas related to military sci-

## MUSIC

MUS

## **School of Music** College of Arts and Letters

Chamber Music Fall, Spring. 1(0-2) A student may earn a maximum of 10 credits in all enrollments for this course. R: Audition required.

Rehearsal and performance of broad range of chamber music literature.

## Philharmonic Orchestra

Fall, Spring. 1(0-3) A student may earn a maximum of 10 credits in all enrollments for this course. RB: High school and/or youth orchestra experience/or other college or university ensemble experience R: Audition required.

Rehearsal and performance of symphonic and operatic repertoire.

## Marching Band

Fall. 1(0-9) A student may earn a maximum of 6 credits in all enrollments for this course. R: Audition required.

Rehearsal and performance of broad range of marching band literature at football games.

### 115 Spartan Brass

Spring. 1(0-2) A student may earn a maximum of 6 credits in all enrollments for this course. R: Audition required.

Rehearsal and performance of broad range of brass literature at basketball and hockey games.

## Campus Band

Fall, Spring. 1(0-3) A student may earn a maximum of 10 credits in all enrollments for this course.

Rehearsal and performance of broad range of band literature chosen from baroque period to the pre-

### 117 Concert Band

Fall, Spring. 1(0-3) A student may earn a maximum of 10 credits in all enrollments for this course. R: Audition required.

Rehearsal and performance of broad range of wind literature from various historical periods and styles.

### 118

**Wind Symphony**Fall, Spring. 1(0-6) A student may earn a maximum of 10 credits in all enrollments for this course. R: Audition required.

Rehearsal and performance of broad range of wind literature from various periods and styles.

## Symphony Band

Fall, Spring. 1(0-3) A student may earn a maximum of 10 credits in all enrollments for this course. R: Audition required

Rehearsal and performance of broad range of wind and percussion literature.

## Symphony Orchestra

Fall, Spring. 1(0-6) A student may earn a maximum of 10 credits in all enrollments for this course. R: Audition required.

Rehearsal and performance of symphonic and operatic repertoire.

## Campus Orchestra

Fall, Spring. 1(0-2) A student may earn a maximum of 10 credits in all enrollments for this course

Rehearsal and performance of symphonic and concert literature written for large orchestra, conducted by staff conductors under the supervision of faculty.

### 123 **Collegiate Choir**

Fall, Spring. 1(0-3) A student may earn a maximum of 10 credits in all enrollments for this course. R: Audition required.

Rehearsal and performance of representative literature for mixed choir with emphasis on renaissance, baroque, classical, romantic, and contemporary composers

## **Choral Union**

Fall, Spring. 1(0-2) A student may earn a maximum of 10 credits in all enrollments for this course. R: Audition required.

University and community chorus. One evening rehearsal per week, culminating in performance of a major work with orchestra.

## Glee Club, Men and Women

Fall, Spring. 1(0-3) A student may earn a maximum of 10 credits in all enrollments for this course.

Rehearsal and performance of broad range of choral literature chosen from medieval period to the pre-

### 126 State Singers

Fall, Spring. 1(0-4) A student may earn a maximum of 10 credits in all enrollments for this course. R: Audition required.

Mixed choir performing music from all periods.

**University Chorale**Fall, Spring. 1(0-4) A student may earn a maximum of 10 credits in all enrollments for this course. R: Audition required.

Mixed chamber choir for experienced singers performing representative literature from all periods.

## **Percussion Ensemble**

Fall, Spring. 1(0-3) A student may earn a maximum of 10 credits in all enrollments for this course. R: Audition required.

Rehearsal and performance of representative works for percussion and mallet ensembles.

### 130 Jazz Band

Fall, Spring. 1(0-4) A student may earn a maximum of 10 credits in all enrollments for this course. R: Audition required.

Rehearsal and performance in large jazz ensemble. Literature from classic bands of Ellington and Basie to contemporary composers.

## Jazz Combo

Fall, Spring. 1(1-2) A student may earn a maximum of 10 credits in all enrollments for this course. R: Audition required.

Rehearsal and performance in small jazz ensembles. Literature from all historical periods of jazz.

## Class Instruction in Piano I

Fall, Spring. 1(1-1) R: Open only to students in the School of Music.

Use of the piano as a teaching tool.

### 142

Class Instruction in Piano II Spring. 1(1-1) P:NM: (MUS 141) R: Open only to students in the School of Music.

Use of the piano as a teaching tool.

### 143 Class Instruction in Voice I: Music Maiors

Fall. 1(1-1) R: Open only to students in the School of Music with an emphasis in voice. C: MUS 151 concurrently.

English lyric diction. Rules or pronunciation. Performance of English language songs in class.

## Class Instruction in Voice II: Music Majors

Spring. 1(1-1) P:M: (MUS 143) R: Open only to students in the School of Music with an emphasis in voice. C: MUS 151 concurrently

Italian lyric diction. Rules of pronunciation. Performance of Italian language songs in class.

## Class Instruction in Voice I

Fall. 1(1-1) R: Not open to students in the School of Music with an emphasis in voice.

Rules of pronunciation. Vocal techniques.

## Class Instruction in Voice II

Spring. 1(1-1) P:M: (MUS 145) R: Not open to students in the School of Music with an emphasis in voice.

Vocal techniques and exploration of vocal literature.

## 147 Class Instruction in Elementary Piano I Fall, Spring. 2(2-1) R: Not open to students in the School of Music.

Basic notation, performance, improvisation, and transposition. Repertoire includes folksongs, simple classics and blues

### 149 **Keyboard Skills**

Fall, Spring. 1(0-2) A student may earn a maximum of 4 credits in all enrollments for this course. R: Open only to students in the School of Music.

Sight-reading, transposing, figured bass, keyboard harmony, and accompanying instrumentalists and vocalists.

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 18 credits in all enrollments for this course. R: Open only to students in the School of Music. Audition required.

Private instruction in piano.

## Music-MUS

### 150C Harp

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 16 credits in all enrollments for this course. R: Open only to students in the School of Music. Audition required.

Private instruction in harp.

### 150J Piano: Jazz

Fall, Spring. 1 to 2 credits. A student may earn a maximum of 8 credits in all enrollments for this course. R: Audition required.

Private instruction in piano.

### 151 Voice

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Open only to students in the School of Music and students in the Music teaching minor. Audition required. Private instruction in voice.

### 151J Voice: Jazz

Fall, Spring. 1 to 2 credits. A student may earn a maximum of 8 credits in all enrollments for this course. R: Audition required.

Private instruction in voice.

### Violin

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 16 credits in all enrollments for this course. R: Audition required. Private instruction in violin.

### 152B Viola

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 16 credits in all enrollments for this course. R: Audition required. Private instruction in viola.

## 152C

Cello Fall, Spring. 1 to 4 credits. A student may earn a maximum of 16 credits in all enrollments for this course, R: Audition required. Private instruction in cello.

### 152D **Double Bass**

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 16 credits in all enrollments for this course. R: Audition required. Private instruction in double bass.

## Stringed Instruments: Jazz

Fall, Spring. 1 to 2 credits. A student may earn a maximum of 8 credits in all enrollments for this course. R: Audition required. Private instruction in a stringed instrument.

## 153A Flute

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 16 credits in all enrollments for this course. R: Audition required.

Private instruction in flute.

### 153B Oboe

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 16 credits in all enrollments for this course. R: Audition required. Private instruction in oboe.

### 153C Clarinet

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 16 credits in all enrollments for this course. R: Audition required.

Private instruction in clarinet.

### 153D Saxophone

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 16 credits in all enrollments for this course. R: Audition required.

Private instruction in saxophone.

### Bassoon

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 16 credits in all enrollments for this course. R: Audition required.

Private instruction in bassoon.

### **Woodwind Instruments: Jazz** 153J

Fall, Spring. 1 to 2 credits. A student may earn a maximum of 8 credits in all enrollments for this course. R: Audition required.

Private instruction in a woodwind instrument.

### 154A Trumpet

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 16 credits in all enrollments for this course. R: Audition required.

Private instruction in trumpet

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 16 credits in all enrollments for this course. R: Audition required.

Private instruction in horn.

## Trombone

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 16 credits in all enrollments for this course. R: Audition required.

Private instruction in trombone.

### 154D Euphonium

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 16 credits in all enrollments for this course. R: Audition required.

Private instruction in euphonium.

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 16 credits in all enrollments for this course. R: Audition required.

Private instruction in tuba

## **Brass Instruments: Jazz**

Fall, Spring. 1 to 2 credits. A student may earn a maximum of 8 credits in all enrollments for this course. R: Audition required.

Private instruction in a brass instrument.

## Percussion Instruments

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 16 credits in all enrollments for this course. R: Audition required.

Private instruction in percussion instruments.

### 155J Percussion Instruments: Jazz

Fall, Spring. 1 to 2 credits. A student may earn a maximum of 8 credits in all enrollments for this course. R: Audition required.

Private instruction in percussion instruments.

## Class Instruction in Guitar

Fall. 1(1-0) R: Open only to students in the Music Therapy major and to other students in the School of Music with a teacher certification option.

Chording, strumming and finger picking techniques. Accompanying and song leading with guitar. Reading of notation and tablature. Classical and popular styles.

# Class Instruction in Stringed Instruments Fall. 2(2-2) R: Open only to students in the School of Music with a teacher certification 161

option. Techniques for playing and teaching stringed in-

# Class Instruction in Flute and Saxophone

Spring. 1(0-2) R: Open only to students in the School of Music with a teacher certification option

Techniques for playing and teaching flute and sax ophone.

## **Class Instruction in Clarinet**

struments.

Fall. 1(0-2) R: Open only to students in the School of Music with a teacher certification option.

Techniques for playing and teaching clarinet.

### 164 Class Instruction in Double Reed Instruments

Spring. 1(0-2) R: Open only to students in the School of Music with a teacher certification option.

Techniques for playing and teaching oboe and bassoon

### 165 Class Instruction in High Brass Instruments

Fall. 1(0-2) R: Open only to students in the School of Music with a teacher certification

Techniques for playing and teaching trumpet and

### 166 Class Instruction in Low Brass Instruments

Spring. 1(0-2) R: Open only to students in the School of Music with a teacher certification option.

Techniques for playing and teaching trombone, euphonium, and tuba.

### 167 Class Instruction in Percussion Instruments

Fall. 2(1-2) R: Open only to students in the School of Music with a teacher certification option.

Techniques for playing and teaching percussion instruments.

## Class Instruction in Stringed Instruments I

Fall. 1(1-1) R: Open only to Music majors. Techniques for playing and teaching stringed instruments at the elementary level.

## Class Instruction in Stringed Instruments II

Spring. 1(1-1) P:M: (MUS 171) SA: MUS 161

Techniques for playing and teaching stringed instruments at the intermediate level and beyond.

## Class Instruction in Percussion Instruments I

Fall, Spring. 1(1-1)

Techniques for playing and teaching percussion instruments at the elementary level.

### 174 **Class Instruction in Percussion** Instruments II

Spring. 1(1-1) P:M: (MUS 173)

Techniques for playing and teaching percussion instruments at the intermediate level and beyond.

### 175 **Understanding Music**

Fall, Spring. 2(2-0)

An active and creative approach to understanding the elements of music in a wide variety of music styles. No prior musical skills required.

## Introduction to Music Education

Fall, Spring. 2(2-1) P.M: (MUS 181) SA: MUS 260

Historical foundations, current trends, and teaching responsibilities in music education at all curricular

## 178

Music Theory For Non Music Majors I Fall. 2(2-1) R: Not open to music majors. Not open to students with credit in MUS 180

Basic components of both written and aural music. No previous musical knowledge assumed.

## Music Theory For Non Music Majors II Spring. 3(3-1) P:M: (MUS 178) R: Not open 179

to music majors. Not open to students with credit in MUS 180 or MUS 181.

Common chords and chord progressions, harmonizing melodies, basic musical forms including some popular and jazz forms, introductory compositional techniques.

### **Fundamentals of Music** 180

Fall. 2(2-1)

Conceptual and notational presentation of the basic components of musical structure. No previous familiarity with music is assumed.

Musicianship I Spring. 3(3-1) P:NM: (MUS 180)

Hierarchical musical structure through species counterpoint and figured bass. Linear and vertical aspects of tonality.

### 182 Ear Training and Sight Singing I

Fall. 1(1-1)

Dictation, melody singing using solfege (movable do) syllables, intervals to octave, error detection, quarter note values in rhythm, part singing.

## Ear Training and Sight Singing II

Spring. 1(1-1) P:NM: (MUS 182)

Dictation, singing melodies in major and minor keys. Simple modulation, chromatic alteration, error detection, rhythms, triads and components, part singing.

## Introduction to Music Theory

Fall. 1(1-1) R: Open only to graduate students in the School of Music. SA: MUS 800

Elements of music theory, with emphasis on voiceleading and harmonic analysis in diatonic and chromatic music.

### 201 **Aural Skills**

Spring. 1(1-1) R: Open only to graduate students in the School of Music. SA: MUS 801

Ear training in the areas of melody, harmony, and rhythm. Sight singing using the solfege system. Computer-aided drill programs.

## History of Western Music to 1750

Fall. 3(3-0) P:M: (MUS 181) R: Not open to freshmen. Open only to students in the School of Music.

Music from ancient Greece through the Baroque. Literature and theory of plainsong, instrumental and vocal traditions, and vocal polyphony before 1750 in sociopolitical context.

### History of Western Music Since 1750 212

Spring. 3(3-0) P:M: (MUS 181) P:NM: (MUS 211) R: Not open to freshmen. Open only to students in the School of Music.

Literature of the cultivated tradition and its theory in sociopolitical context.

## Beginning Jazz Improvisation I

Fall. 2(2-0) P:M: (MUS 181) R: Not open to freshmen.

Keys, modes, chord progressions as improvisational tools. Blues form in basic keys. Aural transcription of recorded solos.

## **Beginning Jazz Improvisation II**

Spring. 2(2-0) P:M: (MUS 230) R: Not open to freshmen.

Performance of complete tunes using II,-V-I progressions in all major and minor keys. Transcriptions of recorded jazz solos.

## Advanced Class Instruction in Piano I

Fall. 1(1-1) P:M: (MUS 142) R: Not open to freshmen. Open only to students in the School of Music with an emphasis in voice.

Use of the piano as a teaching tool in school music.

## Advanced Class Instruction in Piano II

Spring. 1(1-1) P:M: (MUS 241) R: Not open to freshmen. Open only to students in the School of Music with an emphasis in voice.

Use of the piano as a teaching tool in school music.

## German Diction for Singers

Fall. 1(1-1) P:M: (MUS 151) R: Open only to students in the School of Music.

German lyric diction. Rules of pronunciation. Performance of German art songs in class.

## 249

French Diction for Singers
Spring. 1(1-1) P:M: (MUS 151) R: Open only to students in the School of Music.

French Ivric diction. Rules of pronunciation. Performance of French art songs in class.

### 260 Introduction to School Music

Fall, Spring. 2(2-1) P:M: (MUS 181) R: Not open to freshmen. Open only to students in the School of Music with a teacher certification option and to students with a Music teaching minor.

Historical foundations, current trends, and teaching responsibilities in school music at all curricular lev-

### 270 Music Therapy: Foundations and **Principles**

Fall. 3(3-0) R: Not open to freshmen.

History, philosophy and scope of the practice of music therapy. Use of music in treating people with special needs. Field trips required.

## Music Therapy: Instrumental, Vocal and **Movement Techniques**

Spring. 3(3-0) P:M: (MUS 270) R: Not open to freshmen

Creative and expressive techniques involving percussion instruments, autoharp, handchimes, song leading, creative movement, folk dance,

# **Principles of Music Education**Spring. 3(2-2) P:M: (MUS 177) SA: MUS

339

Techniques for developing instructional and management skills for teaching music. On- and offcampus clinical experiences required.

280 Musicianship II
Fall. 3(3-1) P.M: (MUS 181)
Techniques of diatonic modulation and soprano harmonization. Chromatic techniques.

281 Musicianship III
Spring. 3(3-1) P:M: (MUS 280)
Research base for formal categorization. Largescale principles of musical organization. Chromatic substitution and chords derived from voice-leading.

## **Advanced Ear Training and Sight** Singing I

Fall. 1(1-1) P:M: (MUS 183)

Dictation including recognition of triads, functions, cadences, seventh-chord harmonies, chord components. Two-and four-part dictation and singing.

## **Advanced Ear Training and Sight** Singing II

Spring. 1(1-1) P:M: (MUS 282)
Recognition of harmonic functions in major keys, minor keys, and modulations. Dictation in two-and four-part textures including augmented-sixth chords and nonharmonic tones

## Independent Study

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 9 credits in all enrollments for this course. R: Approval of school.

Special projects arranged by an individual student and a faculty member in areas supplementing regular course offerings.

## Ensemble Conducting I

Fall. 2(2-2) P:M: (MUS 181) R: Open only to students in the School of Music with a teacher certification option and to students with a major in Music Therapy or Composition and Music Theory and to students with a Music teaching minor.

Introduction to conducting and rehearsal techniques.

## 336A

**Ensemble Conducting II: Instrumental** Spring. 2(2-2) P:M: (MUS 335) R: Open only to students in the School of Music with a teacher certification option and students with a major in Composition and Music Theorv. SA: MUS 336

Advanced conducting and rehearsal techniques as applied to music literature from each of the stylistic

### 336B Ensemble Conducting II: Choral

Spring. 2(2-2) P:M: (MUS 335) R: Open only to students in the School of Music with a teacher certification option and to students with a major in Composition and Music Theory. SA: MUS 336

Advanced conducting and rehearsal techniques as applied to music literature from each of the stylistic periods.

### 337 **Conducting for Music Performance** Majors

Fall, Spring. 1(1-1) P:M: (MUS 281) R: Open only to Music Performance majors.

Beat patterns, clefs, and transpositions of string, wind, and percussion instruments. Score reading and analysis. Rehearsal techniques.

## **Teaching School Music**

Spring. 3(2-2) P:M: (MUS 260) R: Open only to students in the School of Music with a teacher certification option and to students with a Music teaching minor.

Techniques for developing instructional and management skills for teaching school music. On- and off-campus clinical experiences required.

### 340 Methods and Literature for Voice

Fall. 3(3-0) P:NM: Four semesters of MUS 151. R: Open only to majors in the School of Music

Methods of teaching voice. Literature for both private lessons and classrooms.

## String Pedagogy

Spring. 2(2-1) R: Open only to majors in the School of Music.

Principles, techniques, and materials for teaching stringed instruments.

## Keyboard Methods and Literature I

Fall. 2(2-0) P:NM: Four semesters of MUS 150A. R: Open only to majors in the School of Music.

Beginning and intermediate methods and literature for teaching piano. Observation and teaching of beginning piano students.

**Keyboard Methods and Literature II** Spring. 2(2-0) P:M: (MUS 346) R: Open only to majors in the School of Music.

Intermediate and advanced methods and literature for teaching piano. Observation and teaching of piano students.

## 348

**Piano Accompanying** Fall, Spring. 1(0-3) A student may earn a maximum of 8 credits in all enrollments for this course. P:NM: (MUS 149) R: Not open to freshmen. Open only to students in the School of Music.

Accompaniment of instrumental and vocal soloists.

### 349 Piano Performance

Fall, Spring. 1(0-2) A student may earn a maximum of 10 credits in all enrollments for this course. R: Open only to students in the School of Music.

Critique and analysis of individual performances in a group setting.

### 350A Piano

Fall, Spring. 2 to 3 credits. A student may earn a maximum of 18 credits in all enrollments for this course. P:M: (MUS 150A) R: Open only to majors in the School of Music. Approval of school.

Private instruction in piano.

## Pipe Organ

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 18 credits in all enrollments for this course. R: Open only to majors in the School of Music. Approval of school.

Private instruction in pipe organ.

### 350C Harp

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 18 credits in all enrollments for this course. P:M: (MUS 150C) R: Open only to majors in the School of Music. Approval of school.

Private instruction in harp.

## Voice

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 18 credits in all enrollments for this course. P:M: (MUS 151) R: Open only to majors in the School of Music and to students in the Music teaching minor. Approval of school.

Private instruction in voice.

### 352A Violin

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P:M: (MUS 152A) R: Open only to majors in the School of Music. Approval of school.

Private instruction in violin.

### 352B

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P:M: (MUS 152B) R: Open only to majors in the School of Music. Approval of school.

Private instruction in viola.

### 352C Cello

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P:M: (MUS 152C) R: Open only to majors in the School of Music, approval of school.

Private instruction in cello

**Double Bass**Fall, Spring. 1 to 4 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P:M: (MUS 152D) R: Open only to majors in the School of Music. Approval of school.

Private instruction in double bass.

### 353A Flute

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P:M: (MUS 153A) R: Open only to majors in the School of Music. Approval of school.

Private instruction in flute.

### 353B Oboe

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P:M: (MUS 153B) R: Open only to majors in the School of Music. Approval of school.

Private instruction in oboe.

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P:M: (MUS 153C) R: Open only to majors in the School of Music. Approval of school.

Private instruction in clarinet.

### 353D Saxophone

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P:M: (MUS 153D) R: Open only to majors in the School of Music. Approval of school.

Private instruction in saxophone.

## 353E

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P:M: (MUS 153E) R: Open only to majors in the School of Music. Approval of school.

Private instruction in bassoon.

### 354A Trumpet

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P:M: (MUS 154A) R: Open only to majors in the School of Music. Approval of school.

Private instruction in trumpet.

### 354B Horn

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P:M: (MUS 154B) R: Open only to majors in the School of Music. Approval of school.

Private instruction in horn.

## **Trombone**

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P:M: (MSU 154C) R: Open only to majors in the School of Music. Approval of school.

Private instruction in trombone.

## 354D

**Euphonium** Fall, Spring. 1 to 4 credits. A student may earn a maximum of 24 credits in all enrollments for this course, P:M: (MUS 154D) R: Open only to majors in the School of Music. Approval of school.

Private instruction in euphonium.

Tuba
Fall, Spring. 1 to 4 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P:M: (MUS 154E) R: Open only to majors in the School of Music. Approval of school.

Private instruction in tuba.

## Percussion

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P:M: (MUS 155) R: Open only to majors in the School of Music. Approval of school.

Private instruction in percussion.

### 370 Music Therapy: Behavior Measurement and Assessment

Fall. 3(3-1) P:NM: (MUS 270) R: Open only to Music Therapy majors.

Observation and assessment of behavior. Principles of behavioral change. Design of treatment. Ethics and standards of clinical practice. Field trips eauired.

## 371 Music Therapy: Treatment Planning and Case Management Spring. 3(3-1) P:M: (MUS 370) R: Open only

to Music Therapy majors.

Supervised clinical practice in music therapy. Goals and objectives of treatment. Design and evaluation of treatment programs. Field trips required.

## Musical Styles and Forms (W) Fall. 3(3-1) P:M: (MUS 281) and completion 380

of Tier I writing requirement. R: Open only to majors in the School of Music.

Form in pre-20th century Western music. Stylistic analysis of representative medieval, renaissance, baroque, and 18th and 19th century compositions.

# 20th Century Music Theory Spring. 3(3-1) P:M: (MUS 380)

Western art music and jazz. Stylistic and formal analysis of representative compositions and jazz improvisations. Post-tonal theory. Jazz nomenclature and harmonic practice.

# Keyboard Literature to Mid-19th Century Fall of even years. 2(2-1) P:M: (MUS 281) R: Open only to majors in the School of Mu-

Keyboard styles and works of representative composers such as Bach, Couperin, Mozart, Haydn and

### 414 Keyboard Literature since the Mid-19th

Century Spring of odd years. 2(2-1) P:M: (MUS 413) R: Open only to majors in the School of Music.

Keyboard styles and works of representative composers such as Schumann, Chopin, Ives and Proko-

## Art Song Literature: German

Fall of even years. 2(2-1) P:M: (MUS 181) R: Open only to majors in the School of Music. Not open to freshmen or sophomores.

Standard art song repertoire with emphasis on German Lieder. Performance of art songs in class.

### 416 Art Song Literature: European and American

Spring of odd years, 2(2-1) P:M: (MUS 181) R: Open only to majors in the School of Music. Not open to freshmen or sophomores.

Standard art song repertoire with emphasis on Italian, French, and twentieth century art songs. Performance of art songs in class.

## Music of the 18th Century

Fall of even years. 2(2-0) P:M: (MUS 212) R: Not open to freshmen or sophomores. Open only to majors in the School of Music.

Late baroque and early classical traditions: styles, genres, forms, theories, aesthetics, performance practices, instruments and masterworks in sociopolitical context. Aural and score analysis of representa-

### 421 19th Century European-American Music Literature

Spring of odd years. 2(2-0) P:M: (MUS 212) R: Not open to freshmen or sophomores. Open only to majors in the School of Music.

Late classical and romantic period traditions: styles, genres, forms, theories, aesthetics, performance practice, instruments and masterworks in sociopolitical context. Aural and score analysis of representative works.

### 422 20th Century European and American Music Literature

Spring of even years. 2(2-0) P:M: (MUS 212) R: Not open to freshmen or sophomores. Open only to majors in the School of

Twentieth-century styles, genres, forms, theories, aesthetics, performance practices, instruments and masterworks in sociopolitical context. Aural and score analysis of representative works.

## 423

History of Opera Fall of odd years. 2(2-0) P:M: (MUS 212) R: Open only to majors in the School of Music. Musical, cultural, and social significance of opera since 1600

### 425 Music of South Asia and Its Diaspora

Fall of odd years. 2(2-0) R: Not open to freshmen or sophomores.

Music associated with the cultures of South Asian India and Pakistan, and South Asian musical practices in its Diaspora.

## Music of West Africa

Spring of odd years. 2(2-0) R: Not open to freshmen or sophomores.

Music associated with the cultures of West Africa.

### 427 Music of Asia, the Pacific, and the Near

East Fall. 2(2-0) P:NM: (MUS 212) R: Open only to majors in the School of Music. Not open to freshmen or sophomores.

Music in the cultures of the Asian continent and Pacific islands. Techniques of ethnomusicology, listening and analysis.

## Music of East and Southeast Asia

Fall of even years. 2(2-0) R: Not open to freshmen or sophomores.

Music associated with the cultures of East and Southeast Asia

### 430 Music of the Caribbean

Spring of even years. 2(2-0) R: Not open to freshmen or sophomores.

Music with the cultures of the Caribbean

## 435

**Opera Theatre** Fall, Spring. 1 to 2 credits. A student may earn a maximum of 8 credits in all enrollments for this course. R: Audition required.

Rehearsal and performance of complete operas and operatic excerpts.

## **Electronic and Computer Music** Literature

Fall. 3(3-0) P:M: (MUS 281) R: Not open to freshmen or sophomores.

literature composed with tape recorders, synthesizers and computers.

## Introduction to Computer Music

Fall. 3(3-0) P:M: (MUS 281) R: Not open to freshmen or sophomores.

Digital synthesizers, samplers, and Musical Instrument Digital Interface. Computer sequencing and timbre editing software. Compositional techniques of computer music.

## **Independent Projects in Computer Music** Fall, Spring. 1 to 3 credits. A student may

earn a maximum of 6 credits in all enrollments for this course, P:M: (MUS 441)

Independent composition or research in computer music. Assigned use of computer music studios.

## **Advanced Keyboard Methods and** Literature I

Fall. 2(2-0) P:NM: (MUS 347) R: Open only to majors in the School of Music.

Advanced piano literature for private lessons and

### 449 **Advanced Keyboard Methods and** Literature II

Spring. 2(2-0) P:NM: (MUS 448) R: Open only to majors in the School of Music.

Advanced piano literature for private lessons and classrooms

### 455 **Teaching Instrumental Music**

Spring. 3(3-1) P:M: (MUS 177)

Develop skills necessary for teaching elementary and secondary band. Role of the instrumental music educator purpose of instrumental music in the schools. Clinical experiences in schools required.

# **Teaching Stringed Instruments**

Fall. 3(2-2) P:M: (MUS 177)

Develop skills and knowledge for teaching string and orchestra programs in schools. Pedagogy, musicianship, curriculum, materials and program administration. Clinical experiences in schools required.

## Teaching Instrumental Music in the 457 Elementary School Fall. 3(2-2) P:M: (MUS 339) R: Open only to

seniors and graduate students in the School of Music and to seniors and graduate students with a Music teaching minor.

Techniques for developing instrumental music programs in grades 4-6. Topics include curriculum, pedagogy, materials, and program administration. Clinical experiences in schools required.

## 458 Teaching Instrumental Music in the

Secondary School Spring. 3(2-2) P:M: (MUS 339) R: Open only to seniors and graduate students in the School of Music and to seniors and graduate students with a Music teaching minor.

Techniques for developing instrumental music programs in grades 712. Topics include curriculum, pedagogy, materials, and program administration. Clinical experiences in schools required.

### 460 **Computers in School Music**

Fall. 2(2-1) R: Not open to freshmen or sophomores. Open only to students in the School of Music with a teacher certification option and to students with a Music teaching minor.

Techniques and principles of computer-assisted music instruction in school programs. Emphasis on appropriate software and hardware for teaching and management.

### Marching Band Methods

Spring. 2(2-0) R: Not open to freshmen or sophomores. Open only to students in the School of Music with a teacher certification option and to students with a Music teaching minor

Administration of school marching bands. Technical and philosophical aspects.

## Suzuki Methods and Materials

Spring. 2(1-2) R: Open only to majors in the School of Music

Beginning levels of Suzuki violin pedagogy.

# Methods and Materials of Elementary

Fall, Spring. 2(2-0) R: Not open to freshmen or sophomores. Not open to students in the School of Music.

How children learn music from early childhood to grade three.

## 465

Music in Early Childhood Fall, Spring. 2(2-0) P:M: (MUS 260) R: Not open to freshmen or sophomores. Open only to students in the School of Music with a teacher certification option and to students with a Music teaching minor.

Music learning activities and teaching strategies for children ages three to six.

### 467 **Teaching General Music in the** Elementary School

Fall. 3(2-2) P:M: (MUS 339) R: Open only to seniors and graduate students in the School of Music with a teacher certification option and to seniors and graduate students with a Music teaching minor.

Techniques for teaching general music to students in grades K-6. Topics include curriculum, pedagogy, materials, and program administration. Clinical experience in schools required.

468 Teaching Choral Music
Spring. 3(2-2) P:M: (MUS 177)
Techniques for developing choral music programs. Curriculum, pedagogy, materials, and program administration. Clinical experiences in schools reauired.

### **Teaching Secondary Classroom Music** 469

Fall. 3(3-1) P:M: (MUS 177)

Techniques for teaching general music and elective music classes in middle schools and high schools. Clinical experiences in schools required.

## Music Therapy: Mental and Behavioral Disorders

Fall. 3(3-1) P:M: (MUS 371 or concurrently and PSY 280 or concurrently) R: Open only to Music Therapy majors.

Use of music therapy to treat clients with mental and behavioral disabilities. Clinical practicum required.

# Music Therapy: Physical and

**Developmental Disabilities**Spring. 3(3-1) P:M: (MUS 470 or concurrently and CEP 240 or concurrently) R: Open only to Music Therapy majors.

Use of music therapy to treat clients with physical and developmental disabilities. Clinical practicum required.

## 474

**Aesthetic Theory and Modernism**Fall. 4(4-0) Interdepartmental with Philosophy; English; History of Art; Linguistics and Languages; Romance Languages. Administered by Department of Philosophy. R: Not open to freshmen or sophomores.

Problems, assumptions, and arguments of modern aesthetic theory examined in the context of debates over modernity and modernist artistic practice.

## Psychology of Music: Foundations Fall. 3(3-0) R: Not open to freshmen or 476

sophomores

Psychoacoustics and neurophysiological processing of music. Affective response to music and musical preference. Function of music in society. Nature of musical talent.

# Psychology of Music: Research Methodology and Application

Spring. 2(2-0) P:M: (MUS 476)

Research projects and proposal writing. Application of elementary statistical concepts in evaluating responses to music.

### 480 Counterpoint

Fall, Spring. 2(2-0) P:M: (MUS 381) R: Open only to majors in the School of Music. Creative and analytical work with two-and three-part counterpoint in the style of J.S. Bach.

## Composition

Fall, Spring. 2 credits. A student may earn a maximum of 12 credits in all enrollments for this course. P:M: (MUS 281) R: Open only to majors in the School of Music.

Private instruction in music composition.

## Instrumentation and Basic Orchestration Fall. 2(2-1) P:M: (MUS 380) R: Open only to majors in the School of Music.

Four families of orchestral instruments: strings, woodwinds, brass, and percussion. Acoustics, notation, range, articulation, dynamics, technique, and timbre for individual instruments and orchestral sections

### 490

Independent Study
Fall, Spring. 1 to 3 credits. A student may earn a maximum of 9 credits in all enrollments for this course. R: Approval of school.

Special projects arranged by an individual student and a faculty member in areas supplementing regular course offerings.

### 491 Special Topics in Music

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 10 credits in all enrollments for this course. R: Approval of school. Special topics supplementing regular course offer-

ings proposed by faculty for group study.

### Music Therapy: Clinical Practicum 493 Fall, Spring, Summer. 1 credit. Fall: Offered

at various a. Spring: sites around the U.S. P:M: (MUS 471) R: Open only to Music Therapy majors.

Six months of internship in an approved music therapy clinical program at an accredited treatment center

## Student Teaching in Music

Fall, Spring. 9 credits. Interdepartmental with Teacher Education. R: Open only to seniors in the Bachelor of Music Education

Supervised music teaching experience in schools. On-campus seminar required.

### 830 Research Methods and Materials in Music

Fall. 1 to 3 credits. A student may earn a maximum of 3 credits in all enrollments for this course. R: Approval of school.

Organization, presentation, and documentation of research. Encyclopedias, indices, databases, and other aids.

## Seminar in Ethnomusicology

Fall. 3(3-0) Fall: odd years.

Historical development of ethnomusicology. Theories and techniques of the discipline.

## Fieldwork in Ethnomusicology

Fall. 3(3-0) Fall: even years.

Fieldwork methods and experience. Theoretical issues. Research strategies and techniques.

### 835 Medieval Music

Fall. 3(3-0) P:NM: (MSU 830) R: Open only to graduate students in School of Music.

European music to 1400. Emphasis on polyphonic music, with some attention to Gregorian chant and secular monophony.

### 836 Renaissance Music

Spring. 3(3-0) R: Open only to graduate students in School of Music.

European music, sacred and secular, from 1400 to 1600

## 17th-Century Music

Fall. 3(3-0) P:NM: (MUS 830) R: Open only to graduate students in School of Music.

Instrumental and vocal music in Europe from 1600 to 1700. Development of genres and of national

### Seminar in Piano Pedagogy 843

Fall, Spring. 2(2-0) A student may earn a maximum of 8 credits in all enrollments for this course. P:M: (MUS 346 and MUS 347 and MUS 448) RB: Bachelor of Music in Piano Performance, Piano Pedagogy or Music Education R: Open only to graduate students in Music. Must satisfactorily pass an audition and interview as required by piano department.

Advanced piano pedagogy methods and materials for teaching piano at all lev els. Conceptualizing and implementing a practical teaching project. Topics will

## Secondary or Specialist Emphasis: Piano Fall, Spring. 1(1-0) A student may earn a 844

maximum of 8 credits in all enrollments for this course. R: Open only to graduate students in School of Music. Approval of school. Audition required. Not open to students with an emphasis in piano.

Instruction in piano for students whose principal instrument is not piano.

## Secondary or Specialist Emphasis: Voice

Fall, Spring. 1(1-0) A student may earn a maximum of 8 credits in all enrollments for this course. R: Open only to graduate students in School of Music. Not open to students with a emphasis in voice. Approval of school. Audition required.

Instruction in vocal techniques for students whose principal emphasis is not voice.

### 846 Secondary or Specialist Emphasis:

String
Fall, Spring. 1(1-0) A student may earn a maximum of 8 credits in all enrollments for this course. R: Open only to graduate students in School of Music. Approval of school. Audition required.

Instruction in violin, viola, cello, or double bass.

### Secondary or Specialist Emphasis: 847 **Brass**

Fall, Spring. 1(1-0) A student may earn a maximum of 8 credits in all enrollments for this course. R: Open only to graduate students in School of Music. Approval of school. Audition required.

Instruction in trumpet, trombone, euphonium, or

### 848 Secondary or Specialist Emphasis: Woodwind

Fall, Spring. 1(1-0) A student may earn a maximum of 8 credits in all enrollments for this course. R: Open only to graduate students in School of Music. Approval of school. Audition required.

Instruction in flute, clarinet, oboe, bassoon, or sax ophone.

### Piano Performance 849

Fall, Spring. 1(1-0) A student may earn a maximum of 10 credits in all enrollments for this course. R: Open only to graduate students in School of Music. Approval of

Critique and analysis of individual performances of piano literature in a group setting.

### 850A Piano

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 18 credits in all enrollments for this course. R: Open only to master's students in Music Performance with an emphasis in piano and to master's students in Music Education. Approval of school. Audition required.

Private instruction in piano.

## Voice

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 18 credits in all enrollments for this course. R: Open only to master's students in Music Performance with an emphasis in voice. Approval of school. Audition required.

Private instruction in voice.

### 852A Violin

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 18 credits in all enrollments for this course. R: Open only to master's students in Music Performance with an emphasis in violin. Approval of school. Audition required.

Private instruction in violin.

### 852B Viola

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 18 credits in all enrollments for this course. R: Open only to master's students in Music Performance with an emphasis in viola. Approval of school. Audition required.

Private instruction in viola.

### 852C Cello

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 18 credits in all enrollments for this course. R: Open only to master's students in Music Performance with an emphasis in cello. Approval of school. Audition required.

Private instruction in cello.

### 852D **Double Bass**

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 18 credits in all enrollments for this course. R: Open only to master's students in Music Performance with an emphasis in double bass. Approval of school. Audition required.

Private instruction in double bass.

## 853A

Flute
Fall, Spring. 1 to 3 credits. A student may earn a maximum of 18 credits in all enrollments for this course. R: Open only to master's students in Music Performance with an emphasis in flute. Approval of school. Audition required

Private instruction in flute.

### Oboe 853B

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 18 credits in all enrollments for this course. R: Open only to master's students in Music Performance with an emphasis in oboe. Approval of school. Audition required.

Private instruction in oboe.

### 853C Clarinet

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 18 credits in all enrollments for this course. R: Open only to master's students in Music Performance with an emphasis in clarinet. Approval of school. Audition required.

Private instruction in clarinet.

### 853D Saxophone

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 18 credits in all enrollments for this course. R: Open only to master's students in Music Performance with an emphasis in saxophone. Approval of school. Audition required.

Private instruction in saxophone.

### 853E Bassoon

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 18 credits in all enrollments for this course. R: Open only to master's students in Music Performance with an emphasis in bassoon. Approval of school. Audition required

Private instruction in bassoon.

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 18 credits in all enrollments for this course. R: Open only to master's students in Music Performance with an emphasis in trumpet. Approval of school. Audition required.

Private instruction in trumpet.

### 854B Horn

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 18 credits in all enrollments for this course. R: Open only to master's students in Music Performance with an emphasis in horn. Approval of school, Audition required

Private instruction in horn.

## **Trombone**

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 18 credits in all enrollments for this course. R: Open only to master's students in Music Performance with an emphasis in trombone. Approval of school. Audition required.

Private instruction in trombone.

## 854D

**Euphonium** Fall, Spring. 1 to 3 credits. A student may earn a maximum of 18 credits in all enrollments for this course. R: Open only to master's students in Music Performance with an emphasis in euphonium. Approval of school. Audition required.

Private instruction in euphonium.

### 854E Tuba

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 18 credits in all enrollments for this course. R: Open only to master's students in Music Performance with an emphasis in tuba. Approval of school. Audition required.

Private instruction in tuba.

### 855 Percussion

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 18 credits in all enrollments for this course. R: Open only to master's students in Music Performance with an emphasis in percussion. Approval of school. Audition required.

Private instruction in percussion.

### 856 Chamber Music

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 24 credits in all enrollments for this course. R: Open only to graduate students in School of Music. Aoproval of school. Audition required.

Performance of pre-20th century chamber music under faculty direction.

## Seminar in Band Conducting

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 36 credits in all enrollments for this course. R: Open only to graduate students in School of Music. Approval of school. Audition required.

Advanced band conducting, including core repertoire examination and execution with emphasis on score analysis and preparation.

### Seminar in Orchestral Conducting 858B

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 24 credits in all enrollments for this course. R: Open only to graduate students in School of Music. Approval of department. Approval of school; audition required.

Advanced conducting techniques for the orchestral literature of all periods for string, chamber, and symphony orchestras.

## Seminar in Choral Conducting

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 36 credits in all enrollments for this course. R: Open only to graduate students in School of Music. Approval of school. Audition required.

Advanced conducting techniques for choral and instrumental music of all periods.

## **Choral Techniques and Materials**

Spring of even years. 3(3-0) A student may earn a maximum of 15 credits in all enrollments for this course. R: Open only to graduate students in School of Music.

Advanced development of choral proficiency. Demonstrations of choral techniques. Conducting by students. Examination and evaluation of new materials. Variable content.

## Seminar in History and Philosophy of Music Education

Spring of even years. 3(3-0) R: Open only to graduate students in College of Arts and Letters and in College of Education.

A comparison of philosophical views regarding the nature of music education leading to the development of a personal, professional philosophy of music education

### 861 Seminar in Psychology of Music Education

Fall. 3(3-0) R: Open only to graduate students in College of Arts and Letters and College of Education

Psychological foundations of music teaching and learning. Psychological research on problems of music teaching.

# Seminar in Music Curriculum and

Methodology Fall. 3(3-0) R: Open only to graduate students in College of Arts and Letters and in College of Education.

Historical, philosophical, and psychological foundations of music education curriculum and methodology. Curriculum development and implementation.

### 864 Research in Music Education and Music

**Therapy** Fall. 3(3-0) R: Open only to graduate students in College of Arts and Letters and in College of Education.

Methods of research in music education and music therapy. Conceptualizing and implementing a study. Systematic information retrieval. Proposal writing.

## Advanced Methods and Materials in Secondary Music Education

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.

Current methods and materials for teaching music in secondary schools. Topics vary.

### 870 Contrapuntal Techniques I

Fall of odd years. 3(3-0) R: Open only to graduate students in School of Music.

Techniques of voice-leading through imitative counterpoint. Compositional exercises modeled after sacred vocal polyphony of the sixteenth century, principally Palestrina and Victoria.

### 871 Contrapuntal Techniques II

Spring of even years. 3(3-0) P:NM: (MUS 870) R: Open only to graduate students in School of Music.

Compositional exercises modeled after instrumental polyphony of the eighteenth century, principally J.S. Bach. Influence of fugal technique in the nineteenth and twentieth centuries.

### 872 **Tonal Forms**

Fall. 2(2-0) R: Open only to graduate students in School of Music.

Music from the period of common practice and its relationship to music composition. Interplay of melody, harmony, rhythm, and timbre in various structural units.

## 873

**Early 20th Century Techniques**Spring. 2(2-0) R: Open only to graduate students in School of Music.

Melodic, harmonic, rhythmic, and textural devices employed in early twentieth century music.

## Schenkerian Analysis

Fall. 2(2-0) R: Open only to graduate students in School of Music.

Thought, works, and influences of Heinrich Schenker. Techniques of linear analysis emphasizing the role of long-range voice-leading musical structure.

### 875 Analysis of Musical Scores

Summer. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to graduate students in School of Music.

Analysis of choral, orchestral, and band music as a means of enhancing interpretation and performance.

History of Music Theory Fall of odd years. 3(3-0) P:NM: (MUS 830) R: Open only to graduate students in School of Music

Principal western theories of music from Pythagoras to the present. Ideas contributing to the development of modern musical thought and their place in western intellectual history.

## 877

Scoring for Orchestra and Band Fall. 2(2-1) R: Open only to graduate students in the School of Music.

Theory and practice in scoring for orchestra and band.

### 878 Advanced Scoring for Orchestra and Band

Spring. 2(2-1) P:NM: (MUS 877) R: Open only to graduate students in the School of Music.

Orchestra scoring from Bach to Boulez and band scoring from Sousa to Maslanka. Advanced scoring projects.

### 879 Rhythm in Music

Fall. 3(3-0) Fall: even numbered years. R: Open only to graduate students in the School of Music.

Theory and analysis of large-scale rhythm and motion, including issues of temporal relationships, harmonic rhythm, phrase formation, and formal structure.

### 880 Composition

Fall, Spring. 2(2-0) A student may earn a maximum of 24 credits in all enrollments for this course. R: Open only to graduate students in School of Music.

Advanced guided projects in creative writing of music

## Seminar in Composition

Fall, Spring. 2(2-0) A student may earn a maximum of 20 credits in all enrollments for this course. R: Open only to graduate students in School of Music.

Study of contemporary music, with emphasis on compositional procedures.

## Composition with Computers

Fall. 2(2-1) R: Open only to graduate students in School of Music.

Current applications of microcomputers in musical composition.

## Advanced Computer Music Projects Spring. 1 to 4 credits. A student may earn a 883

maximum of 12 credits in all enrollments for this course. P:NM: (MUS 882 or MUS 441) R: Open only to graduate students in School of Music and in Computer Science.

Techniques and principles of composition and research with computers. Use of computer hardware and software.

### Independent Study 890

Fall, Spring, Summer. 1 to 10 credits. A student may earn a maximum of 20 credits in all enrollments for this course. R: Approval of school.

Special projects, directed reading, and research arranged by an individual graduate student and a faculty member in areas supplementing regular course offerings.

## 891

Special Topics
Fall, Spring, Summer. 1 to 10 credits. A student may earn a maximum of 25 credits. in all enrollments for this course. R: Approval of school.

Special topics supplementing regular course offerings proposed by faculty on a group study basis for graduate students.

### 892A Seminar in Music History

Fall, Spring. 1 to 6 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Open only to graduate students in School of Music. Approval of school.

Various areas of music history, such as major composers, development of genres, criticism, or cultural context.

### 896 Recital Performance

Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 10 credits in all enrollments for this course. R: Open only to master's students in Music Performance. Approval of school.

Directed experience in recital performance in partial fulfillment of Plan B master's degree requirements.

## **Concert Conducting**

Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 10 credits in all enrollments for this course. R: Open only to master's students in Music Performance. Approval of school.

Directed experience in concert conducting in partial fulfillment of Plan B master's degree requirements.

### Master's Research 898

Fall, Spring, Summer. 1 to 10 credits. A student may earn a maximum of 20 credits in all enrollments for this course, R: Open only to master's students in School of Music. Approval of school.

Directed research in support of Plan B master's degree requirements.

### 899 Master's Thesis Research

Fall, Spring, Summer. 1 to 10 credits. A student may earn a maximum of 20 credits in all enrollments for this course. R: Open only to master's students in School of Music. Approval of school.

Directed research in partial fulfillment of Plan A master's degree requirements.

Seminar in 18th Century Music Spring of odd years. 3(3-0) R: Open only to graduate students in School of Music.

Research on topics in eighteenth-century music.

### 936 Seminar in 19th-Century Music

Fall of even years. 3(3-0) R: Open only to doctoral students in School of Music.

Selected topics in 19th-century music.

## Seminar in 20th-Century Music

Spring of even years. 3(3-0) R: Open only to doctoral students in School of Music. Selected topics in 20th-century music.

## 950A

Piano
Fall, Spring. 1 to 3 credits. A student may earn a maximum of 24 credits in all enrollments for this course. R: Open only to doctoral students in Music Performance with an emphasis in piano. Approval of school. Audition required.

Private instruction in piano.

### Voice 951

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 24 credits in all enrollments for this course. R: Open only to doctoral students in Music Performance with an emphasis in voice. Approval of school. Audition required.

Private instruction in voice.

### 952A Violin

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 24 credits in all enrollments for this course. R: Open only to doctoral students in Music Performance with an emphasis in violin. Approval of school. Audition required.

Private instruction in violin.

### 952R Viola

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 24 credits in all enrollments for this course. R: Open only to doctoral students in Music Performance with an emphasis in viola. Approval of school. Audition required.

Private instruction in viola.

### 952C Cello

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 24 credits in all enrollments for this course. R: Open only to doctoral students in Music Performance with an emphasis in cello. Approval of school. Audition required.

Private instruction in cello.

### 952D Double Bass

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 24 credits in all enrollments for this course. R: Open only to doctoral students in the Music Performance major with an emphasis in double bass. Approval of school. Audition required.

Private instruction in double bass.

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 24 credits in all enrollments for this course. R: Open only to doctoral students in Music Performance with an emphasis in flute. Approval of school. Audition required.

Private instruction in flute.

### 953B Oboe

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 24 credits in all enrollments for this course. R: Open only to doctoral students in Music Performance with an emphasis in oboe. Approval of school, Audition required

Private instruction in oboe.

### 953C Clarinet

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 24 credits in all enrollments for this course. R: Open only to doctoral students in Music Performance with an emphasis in clarinet. Approval of school. Audition required.

Private instruction in clarinet.

### 953D Saxophone

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 24 credits in all enrollments for this course. R: Open only to doctoral students in Music Performance with an emphasis in saxophone. Approval of school. Audition required.

Private instruction in saxophone.

### 953E Bassoon

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 24 credits in all enrollments for this course. R: Open only to doctoral students in Music Performance with an emphasis in bassoon. Approval of school. Audition required.

Private instruction in bassoon.

### 954A Trumpet

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 24 credits in all enrollments for this course. R: Open only to doctoral students in Music Performance with an emphasis in trumpet. Approval of school. Audition required.

Private instruction in trumpet.

### 954R Horn

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 24 credits in all enrollments for this course. R: Open only to doctoral students in Music Performance with an emphasis in horn. Approval of school. Audition required.

Private instruction in horn.

## Trombone

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 24 credits in all enrollments for this course. R: Open only to doctoral students in Music Performance with an emphasis in trombone. Approval of school. Audition required.

Private instruction in trombone.

### 954D **Euphonium**

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 24 credits in all enrollments for this course. R: Open only to doctoral students in Music Performance with an emphasis in euphonium. Approval of school. Audition required

Private instruction in euphonium.

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 24 credits in all enrollments for this course. R: Open only to doctoral students in Music Performance with an emphasis in tuba. Approval of school. Audition required.

Private instruction in tuba.

### 955 Percussion

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 24 credits in all enrollments for this course. R: Open only to doctoral students in Music Performance with an emphasis in percussion. Approval of school. Audition required.

Private instruction in percussion.

### 958A Seminar in Band Conducting

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Open only to doctoral students in School of Music. Approval of school; audition required.

Advanced band conducting, including core repertoire examination and execution, with emphasis on score analysis and preparation.

### Seminar in Orchestral Conducting 958B

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Open only to doctoral students in School of Music. Approval of school: audition required.

Advanced conducting techniques for the orchestral literature of all periods for string, chamber, and symphony orchestras.

**Seminar in Choral Conducting**Fall, Spring. 1 to 3 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Open only to doctoral students in School of Music. Approval of school; audition required.

Advanced conducting techniques for choral and instrumental music of all periods.

### Seminar in Measurement in Music 960

Education
Spring of odd years. 3(3-0) P:NM: (MUS 864 and MUS 965) or approval of school. R: Open only to graduate students in Music Education or approval of school.

Theory and practice of measuring musical behavior in terms of aptitude and achiev ement. Current trends in cognitive, affective, and psychomotor measurement in music.

### 961 Seminar in Music Teacher Education

Fall of odd years. 3(3-0) R: Open only to graduate students in College of Arts and Letters and in College of Education.

Issues, trends, and strategies for preparing prospective music educators.

# Advanced Studies in the Philosophy of

Music Education
Fall of even years. 3(3-0) R: Open only to graduate students in College of Arts and Letters and in College of Education.

Historic and contemporary views of the value and import of music and music education and their translation into practice

## 965 Advanced Research Methods in Music

Spring. 3(3-0) P:NM: (MUS 864) R: Open only to graduate students in College of Arts and Letters and in College of Education.

Music education research projects using computerized statistical analysis.

## 970

Pedagogy of Theory
Fall of odd years. 3(3-0) R: Open only to graduate students in the School of Music.

Organization, goals, and procedures for teaching music theory to undergraduates. Choice and sequencing of topics, pacing, supplementary materials, educational philosophies, and relevance to performance.

## Analytical Studies I

Fall. 3(3-0) R: Open only to graduate students in School of Music.

Melody, harmony, rhythm, color, texture, counterpoint, and structure in selected musical masterpieces from the 13th century to the early 19th cen-

## **Analytical Studies II**

Spring. 3(3-0) R: Open only to graduate students in School of Music.

Melody, harmony, rhythm, color, texture, counterpoint, and structure in selected musical masterpieces from the nineteenth and twentieth centuries.

## Atonality, Serialism, and Set Theory

Spring. 2(2-0) R: Open only to graduate students in School of Music.

Atonal and paratonal music. Related compositional and analytical systems. Serialism, integral serialism, and set theory.

### 975 **Readings in Music Theory**

Spring of odd years. 2(2-0) R: Open only to graduate students in School of Music.

Current topics in music theory. Research paper required.

### 980 Composition

Fall, Spring. 2(2-0) A student may earn a maximum of 24 credits in all enrollments for this course. R: Open only to graduate students in School of Music.

Advanced guided projects in creative writing of music.

### 990

**Doctoral Independent Study**Fall, Spring, Summer. 1 to 10 credits. A student may earn a maximum of 20 credits in all enrollments for this course. R: Approval of school.

Special projects, directed reading, and research arranged by an individual doctoral candidate and a faculty member in areas supplementing the regular course offerings.

### 991 Special Topics

Fall, Spring, Summer. 1 to 10 credits. A student may earn a maximum of 25 credits in all enrollments for this course. R: Approval of school.

Special topics supplementing regular course offerings proposed by faculty on a group study basis for doctoral students.

## 992

**Seminar in Musicology** Spring. 3(3-0) A student may earn a maximum of 18 credits in all enrollments for this course. R: Open only to graduate students in School of Music.

Topics in musicology such as early notations, music editing, or historical performance practices.

## **Doctoral Recital Performance**

Fall, Spring, Summer. 1 to 12 credits. A student may earn a maximum of 30 credits in all enrollments for this course. R: Open only to doctoral students in Music Performance.

Directed experience in recital performance in partial fulfillment of requirements for the Doctor of Musical Arts degree.

## 997

**Doctoral Concert Conducting**Fall, Spring, Summer. 1 to 12 credits. A student may earn a maximum of 30 credits in all enrollments for this course, R: Open only to doctoral students in Music Performance

Directed experience in concert conducting in partial fulfillment of requirements for the Doctor of Musical Arts degree.

### 998 **Doctoral Music Composition**

Fall, Spring, Summer. 1 to 12 credits. A student may earn a maximum of 30 credits in all enrollments for this course. R: Open only to doctoral students in the Music Composition major.

Directed experience in composition in partial fulfillment of requirements for the Doctor of Musical Arts degree.

### 999 **Doctoral Dissertation Research**

Fall, Spring, Summer. 1 to 40 credits. A student may earn a maximum of 40 credits in all enrollments for this course. R: Open only to doctoral students in School of Music. Approval of school.

Doctoral dissertation research.

# NATURAL **SCIENCE**

**NSC** 

## **College of Natural Science**

Preview of Science Fall. 1(1-0) Interdepartmental with Agriculture and Natural Resources; Engineering; Social Science. R: Approval of college.

Overview of natural sciences. Transitional problems. Communications and computer skills. Problem solving skills. Diversity and ethics problems in science Science and society

## Preprofessional Freshman Seminar

Fall, Spring. 1(1-0)

Overview of human health care professions with emphasis on academic and nonacademic undergraduate preparation, campus resources, communication and computer skills, and collaborative learn-

## **Environmental Issues Seminar**

Fall, Spring. 1(1-0) A student may earn a maximum of 4 credits in all enrollments for this course. Interdepartmental with Agriculture and Natural Resources; Engineering; Social Science; Communication Arts and Sciences. R: Open only to students in the College of Agriculture and Natural Resources or College of Engineering or College of Natural Science or College of Communication Arts and Sciences or College of Social Science. Approval of college.

Environmental issues and problems explored from a variety of perspectives, including legal, scientific, historical, political, socio-economic, and technical points of view.

## Science Problem Solving Seminar I

Fall. 2(2-0) P:M: (MTH 1825 or concurrently or MTH 116 or concurrently or MTH 132 or concurrently) R: Approval of college.

Problem solving principles and strategies used in the disciplines of science and mathematics. Activ ities reflecting the types of problems encountered.

## Science Problem Solving Seminar II Spring. 2(2-0) P:M: (NSC 201) R: Approval

of college.

Continuation of NSC 201.

**Drew Laboratory Directed Studies**Fall, Spring, Summer. 1 to 2 credits. A student may earn a maximum of 6 credits in all enrollments for this course, P:M: (NSC 202) R: Open only to Drew Laboratory students.

Using topics related to a faculty member's ongoing research, students explore the relationship between science and technology and social issues.

Science for Elementary Schools Fall, Spring. 3(3-0) RB: Completion of an ISB and ISBL or ISP and ISPL course. Completion of the majority of complementary studies coursework in science and math. R: Open only to students in the Elementary Teacher Education Program.

Topics in earth science, life science, and physical science explored through discussion, demonstrations, readings, presentations, and field trips.

### 320 Introduction to Theory and Applications

of Modern Microscopy Spring. 2(1-2) R: Open only to juniors or seniors

General principles of operation of electron, laser, and scanning probe microscopes. Applications of microscopy. Specimen preparation for microscopy.

## Special Problems

Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of department.

Faculty directed individualized study of an interdisci-

# Science Laboratories for Secondary Schools (W) Fall. 4(2-6) R: Open only to seniors in the

BA degree in Chemistry, or the BS degree in Biological Science-Interdepartmental or Earth Science-Interdepartmental or General Science-Interdepartmental or Physical Science-Interdepartmental major or their associated LBS majors.

Laboratory equipment, supplies, demonstrations, exercises, and safety. Care of live organisms. Disposal of biological and chemical wastes. Field trips required.

## Ecology, Law and Economics

Spring. 3(3-0) P:M: (EC 201)

Review and integrate principles of ecology, fundamentals of law, and principles of economics into a conceptual model that describes interrelations among the natural system, the economy, and the state. Analyze and assess the legal-economic natural resource and environmental policies in the context of the integrated model. Relate the ecology -laweconomics model to emerging paradigms of sustainable development, ecological economics, industrial ecology, and the Natural Step.

### **Special Problems** 490

Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of department.

Faculty directed individualized study of an interdisciplinary problem.

### 491 Selected Topics

Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of department.

Selected interdisciplinary topics not normally covered in other courses.

### 495 Capstone in Human Biology (W)

Fall, Spring. 2(2-0) P:M: Completion of Tier I writing requirement. R: Open only to seniors in the Human Biology major.

Integration of human biology disciplines with a focus on health and disease.