121. Preview of Military Science  
Fall, Winter. 1(1-0) Approval of department.  
Role of the ROTC officer in the Army. Assists the student in planning a curriculum to satisfy requirements for a commission.

122. Marksmanship and Hunter Safety  
Fall, Spring. 1(0-2) 121 or approval of department.  
Small arms marksmanship and safety. Practical exercises on local firing ranges. Individual basic military marksmanship and the skills necessary to participate in a competitive or recreational shooting program.

223. Terrain Analysis and Land Navigation  
Winter, Spring. 3(0-0) 121 and approval of department.  
Military maps, map construction, specifications and uses. Includes both a study of aerial photographs and an introduction to remote energy sensors employed by defense agencies as they relate to tactical operations.

324. Military Teaching  
Fall, Winter. 4(4-2) Basic course, approval of department.  
Methods of teaching manipulative skills to groups with varying educational backgrounds. Emphasis on determination of entry behavior, progress analysis, testing and test construction. Introduction to current teaching aids. Practical experience in simulated field situations is stressed during laboratory.

325. Military Management  
Spring. 4(3-2) 324 or approval of department.  
Task analysis approach to missions. The subject of tactics is used as a teaching vehicle for the managerial approach to the preparation and execution phases of military operations. Emphasis is placed on physical and moral leadership during the laboratory sections.

426. Military Law  
Winter. 4(4-0) Approval of department.  
Civilian and military law as they pertain to individuals and organizations associated with the Department of Defense.

427. Seminar  
Spring. 1(1-0) Approval of department.  
Precommissioning orientation stressing current military policies, procedures, customs and trends.

MUSIC

College of Arts and Letters

094. Band  
Summer. Zero credit. Membership determined by audition.  
Attendance at all rehearsals and public concerts obligatory. See Music 117, 118, 218.

100. Theory Review  
Fall, Summer. 2(3-2) For majors who need theory review.  
Basic course in fundamentals and ear training.

112. Chamber Music  
Fall, Winter, Spring, Summer. 1(1-0).

118. Band  
A. Marching Band  
Fall. 1 credit. May re-enroll for credit. Membership determined by audition.  
The Marching Band participates at football games.

B. Spartan Brass  
Winter. 1 credit. May re-enroll for credit. Membership determined by audition.  
The Spartan Brass participates at basketball games.

C. Concert Band  
Fall, Winter, Spring. 1 credit. May re-enroll for credit. Membership determined by audition.  
Public appearances are scheduled on campus each term.

D. Symphonic Band  
Fall, Winter, Spring. 1 credit. May re-enroll for credit. Membership determined by audition.  
A high level of achievement in performing ability is required.  
Concerts are scheduled both on and off campus.

133. Orchestra  
Fall, Winter, Spring. 1(0-5) Membership determined by audition.  
Standard overtures and symphonies studied and publicly performed. Attendance at all rehearsals and public concerts obligatory.

135. Music in Elementary Education  
Fall, Winter, Spring, Summer. 4(3-2)  
Basis, scope and sequence of music instruction in the elementary schools with an introduction to basic knowledge and skills used in elementary school music.

141. Class Instruments and Voice  
Fall. 1(0-2) Knowledge of notation.  
Class instruction in piano, voice, violin, cello, clarinet, and cornet.

142. Class Instruments and Voice  
Winter. 1(0-2) 141.  
Continuation of 141. Class instruction in piano, voice, viola, cello, clarinet, and cornet.

143. Class Instruments and Voice  
Spring. 1(0-2) 142.  
Continuation of 142. Class instruction in piano, voice, violin, cello, clarinet, and cornet.

145. Music Foundations  
Fall, Winter, Spring, Summer. 4(3-2)  
Elementary Education and Physical Education majors.  
Development of understanding and knowledge of music fundamentals, ear training, and music reading, rhythm and tone problems.

146. Elements of Music  
Fall, Winter, Spring. 2(1-3) Physical Education majors.  
Understanding of music and rhythm necessary for the accomplishment and recognition of various rhythmic activities which are a part of physical education.

147. Elementary Piano  
Fall, Winter, Spring. 2(2-2) 145 or approval of department. Elementary Education and Physical Education and Recreation majors.  
Beginning class piano instruction. Development of ability to play the three principal chords in all keys and to harmonize simple melodies using these chords. Transposition of simple melodies. Ability to play melodies, and rhythms suitable for use in lower intermediate grades or in recreation work.

150. Keyboard Instruments and Harp  
Fall, Winter, Spring, Summer. 1 to 4 credits. To pass entrance examination, students should have all major and harmonic minor scales and arpeggios, and be able to play from memory equivalent of studies from Czerny Op. 259, two-part inventions of Bach, movements from Mozart, Haydn, or Beethoven sonatas, or compositions of equal difficulty.  
Instruction in piano, pipe organ, and harp.

152. Stringed Instruments  
Fall, Winter, Spring, Summer. 2 to 4 credits.  
Student should have elementary knowledge of piano. Entering majors are expected to display a knowledge of instruments and play two-octave major and minor scales in the more common bowings.  
Instruction in violin, viola, violoncello, and string bass.

153. Woodwind Instruments  
Fall, Winter, Spring, Summer. 2 to 4 credits.  
Entering majors are expected to display playing knowledge of instrument to include proper embouchure, good tone quality, relatively accurate sense of pitch, rhythmic accuracy, fluent manner of playing, ability to play two-octave major scales in the more common keys, technical exercises equivalent to the major scale studies in the Abart Method, and solos such as Phantasy, Fischi, Tutil, My Regards, Elephant, Adagio Cantabile, Beethoven or other solos of equal difficulty.  
Instruction in flute, oboe, clarinet, saxophone, and bassoon.

154. Brass Instruments  
Fall, Winter, Spring, Summer. 2 to 4 credits.  
To pass entrance examination in a brass instrument, candidates should be able to meet the following requirements: proper embouchure, good tone quality, relatively accurate sense of pitch, rhythmic accuracy, fluent manner of playing, ability to play two-octave major scales in the more common keys, technical exercises equivalent to the major scale studies in the Abart Method, and solos such as Phantasy, Fischi, Tutil, My Regards, Elephant, Adagio Cantabile, Beethoven or other solos of equal difficulty.  
Instruction in cornet, French horn, trombone, baritone, and tuba.

155. Percussion  
Fall, Winter, Spring, Summer. 1 to 4 credits.  
To pass entrance examination in percussion instruments, candidate must be able to play satisfactorily the twenty-four rudiments.

156. Basic Harmony  
Fall. 3(3-1)  
Fundamentals of basic musicianship: notation, clefs, scales, intervals, triads, meter, rhythm,
and tonality. The analysis and writing of diatonic harmony in the style of the Bach 4-part chorale.

181. Basic Harmony
   Winter. 3(3-1) 180.
   Continuation of 180.

182. Basic Harmony
   Spring. 3(3-1) 181.
   Continuation of 181.

183. Aural Harmony
   Fall, Winter, Spring, Summer. 1(0-2) 180 concurrently.
The aural counterpart of basic harmony. Drill in harmonic, melodic and rhythmic dictation. Sight-singing and keyboard harmony.

184. Aural Harmony
   Fall, Winter, Spring, Summer. 1(0-2) 183; 181 concurrently.

185. Aural Harmony
   Fall, Winter, Spring. 1(0-2) 184; 182 concurrently.

190. State Singers
   Fall, Winter, Spring, 1(0-4) Membership determined by audition; ability to sight-read.
   Three hours of rehearsals a week. Attendance at all rehearsals and public concerts obligatory.

191. Chorus
   Fall, Winter, Spring, Summer. 1(0-3) 185
   Two and one-half hours of rehearsals per week. Attendance at all rehearsals and public concerts obligatory.

192. Glee Club, Men and Women
   Fall, Winter, Spring. 1(0-3) Membership determined by audition.
   Three hours of rehearsals a week. Attendance at all rehearsals and public concerts obligatory.

195. Jazz Laboratory Band
   Fall, Winter, Spring, Summer. 1(0-3) 186
   Membership determined by audition.
   Practical experience in playing music in the jazz idiom. Techniques of rehearsing a stage band. Playing of student arrangements; performance of jazz composition and arrangements in concert.

200H. Honors Work
   Fall, Winter, Spring, Summer. 1 to 16 credits. Approval of department.

224. History of Music
   Fall. 3(3-4) 187.
   Music from ancient Greece through Romanesque and Gothic periods, concluding with the Renaissance. Greek theory and "ethos"; age of plainsong; development of polyphony; instruments peculiar to period under question.

225. History of Music
   Winter. 3(3-0) 194.
   Baroque and classical periods. Special attention to fugue, opera, orchestra, sonatas, and symphony. Analysis of characteristic works.

226. History of Music
   Spring. 3(3-1) 195.
   Romantic period, impressionism, and contemporary trends. Continuation of development of form, melody, rhythm, and tonality. Final examination is comprehensive, covering 224, 225 and 226.

241. Advanced Class Piano
   Fall. 1(0-2) 196; 184 or approval of department. For School Music Choral majors only.
   Continuation of Class Piano 184. Special emphasis given to developing practical skills at the piano for use in the public school classroom.

242. Advanced Class Piano
   Winter. 1(0-2) 197 or approval of department.
   Continuation of 241.

243. Advanced Class Piano
   Spring. 1(0-2) 200 or approval of department.
   Continuation of 242.

245. Elementary School Music
   Fall, Winter, Spring. 3(3-0) 198.
   or approval of department. Elementary Education majors.
   Continuation of unison and part singing. Methods and materials in elementary school music. Workshop activities to prepare for teaching on levels from nursery school through 8th grade.

271. Fundamentals of Music
   Fall, Winter, Spring. 3(3-1) Non-majors.
   Fundamentals of music to develop understanding and knowledge of scales and modes, key signatures, chord structures, chord progressions and non-harmonic tones.

272. Introduction to Music Literature I
   Fall, Winter, Spring, Summer. 3(3-0) Non-majors.
   An introduction to music in the Western tradition. The elements of musical expression and the techniques of musical analysis in connection with representative musical masterpieces of the Middle Ages, the Renaissance, the Baroque, the period of Classicism and Romanticism, and the twentieth century.

273. Introduction to Music Literature II
   Fall, Winter, Spring, Summer. 3(3-0) Non-majors.
   Continuation of 272. Music of the eighteenth century. Among composers to be studied are: Vivaldi, D. Scarlatti, F. Couperin, Bach, Handel, Haydn and Mozart. Demonstrates the major types and media of composition from the late Baroque to early Romanticism and clarifies the stylistic trends of the time.

280. Advanced Harmony
   Fall. 3(3-1) 199.
   Continuation of 280, with added vocabulary and technique through nineteenth century harmony. Creative writing in small forms.

281. Advanced Harmony
   Winter. 3(3-1) 200 or approval of department.
   Continuation of 280.

282. Advanced Harmony
   Spring. 3(3-1) 201 or approval of department.
   Continuation of 281.

283. Advanced Aural Harmony
   Fall, Winter, Spring, Summer. 2(0-4) 202.
   Aural counterpart of advanced harmony. Drill in harmonic, melodic, and rhythmic dictation. Sight-singing and keyboard harmony.

284. Advanced Aural Harmony
   Fall, Winter, Spring, Summer. 1(0-2) 203.
   283 concurrently.

285. Advanced Aural Harmony
   Fall, Winter, Spring, Summer. 1(0-2) 204.
   283 concurrently.

286. Opera Workshop
   Fall, Winter, Spring, Winter. 1(0-4) Approval of department. Repertoire coaching, diction, interpretation. Study and performance of entire operas and excerpts from the standard and contemporary repertoire; production of musicals (with Speech and Theatre Department); TV opera productions on Station WMGB.

314. Church Service Playing
   Fall, Winter, Spring. 2(2-0) May re-enroll for a maximum of 8 credits. Three terms of pipe organ.
   Instruction in adapting piano and orchestral accompaniment to organ; choosing organ and choir repertoire appropriate to church season; hymn playing, modulation, and ways to help unify service.

315. Advanced Band
   A. Symphonic Band
   Fall, Winter, Spring. 2 credits. May re-enroll for credit.
   B. Wind Ensemble
   Fall, Winter, Spring. 2 credits. May re-enroll for credit. Membership determined by audition. The highest level of performing ability is required.
   Full range of wind literature is performed. Public concerts are presented both on and off campus.

320. Music Workshop
   Summer, 1 to 6 credits. Approval of department.

323. Carillon
   Fall, Winter, Spring, Summer. 2 credits. May re-enroll for credit. 182; 6 terms of piano and approval of department.
   Carillon playing technique, style and interpretation, arranging, adapting composition and improvisation. Survey of ensemble combinations with other instruments. Mechanical aspects of the instrument and bell acoustics. Carillon art and tradition, bell founders, literature and composers.

334. Composing and Arranging for Jazz Ensembles
   Fall, Winter, Spring, Summer. 1(0-3) 205 May re-enroll for a maximum of 9 credits.
   182; 6 terms of piano and approval of department.
   Techniques of composition and arranging in jazz idiom for various instrumental and/or vocal ensembles. Analytical studies of scores, recorded examples and published stage band materials. Writing for films and commercials.

335. Ensemble and Conducting
   Fall, Spring. 2(1-4) 195 or approval of department.
   Principles of conducting correlated with application in ensemble of vocal and instrumental class instruction. Survey of vocal and instrumental ensemble literature suitable for school use. Individual conducting stressed.

336. Ensemble and Conducting
   Winter. 3(1-4) 335
   Continuation of 335.

340. Class Instruments
   Fall, Winter, Spring, Summer. 1(0-2) 206
   May re-enroll for credit. Majors.
   Study for one term of instruments not included among basic instruments. Not more than two may be studied at same time. Class instruction in viola, string bass, flute, oboe, bassoon, French horn, trombone, and percussion.
436. Elementary School Music Appreciation
Winter, Spring, Summer. 2(1-2) Elementary Education majors.
For teachers who need better understanding of types, forms, and styles of instrumental and vocal compositions. Development of critical judgment of musical works and place of music in modern life. Opportunities to hear records and performances. Study of materials to be used in elementary school.

437. Methods and Literature
2(1-2) Six terms of piano or voice or approval of department.
Methods of teaching piano or voice, with study of appropriate teaching repertoire for piano or voice.

438. Stringed Instruments
Fall. Summer of odd-numbered years. Summer.
Fall, Winter, Spring, Summer. 1 to 4 credits. Six terms of 150 or approval of department.
Continuation of 153. Instruction in violin, viola, violoncello, and string bass.

439. Woodwind Instruments
Fall, Winter, Spring, Summer. 2 to 4 credits. Six terms of 153 or approval of department.
Continuation of 153. Instruction in flute, oboe, clarinet, saxophone, and bassoon.

440. Percussion
Fall, Winter, Spring, Summer. 1 to 4 credits. Six terms of 155 or approval of department.
Continuation of 155.

441. Sight Reading at the Piano
Fall. Winter, Spring, Summer. 1 to 2 credits. May re-enroll for a maximum of 6 credits. Three terms of piano. Establish principles of good sight reading, accompanying and free keyboard harmonization.

442. Sight Reading at the Piano
Fall. Winter, Spring, Summer. 2(1-2) Six terms of voice or approval of department.
Continuation of 155.

443. Opera
Winter of odd-numbered years. 2(1-2) May re-enroll for a maximum of 6 credits. Six terms of voice or approval of department. History of opera from 1600 to the present.

444. Oratorio
Fall of even-numbered years. Summer. 2(1-2) Six terms of voice or approval of department. History of oratorio from 1600 to the present.

445. Renaissance Music
Fall. 2 credits. 182.

446. 19th Century Music
Fall. 2 credits. 182.

447. Keyboard Music, 17th - 18th Century
Fall of even-numbered years. 2 credits. 182.

448. German Lieder
Fall of odd-numbered years. 2 credits. 192.

449. Organ Literature to 1700
Fall of odd-numbered years. 2 credits. 192.

450. Baroque Music
Winter. 2 credits. 182.

451. 20th Century Music, European
Winter. 2 credits. 182.

452. Piano Music, 19th Century
Winter of odd-numbered years. 2 credits. 182.

453. French-Italian Art Song
Winter of even-numbered years. 2 credits. 182.

454. Organ Literature From 1700 to 1960
Winter of even-numbered years. 2 credits. 182.

455. Classical Music
Spring. 2 credits. 182.

456. 20th Century Music, American
Spring. 2 credits. 182.

457. Piano Music, 20th Century
Spring of odd-numbered years. 2 credits. 182.

458. English-American Art Song
Spring of even-numbered years. 2 credits. 182.

459. Organ Literature From 1900 to Present
Spring of even-numbered years. 2 credits. 182.

460. Honors Course in Music Literature
Fall. 3(3-0) or 4(3-0). Music 226 and approval of department.
A tutorial class. Primary emphasis on instrumental and vocal music 1750-1960, but work may be directed towards the student's special field of interest.

461. Honors Course in Music Literature
Winter. 3(3-0) or 4(3-0) 226 and approval of department.
Continuation of 460.

462. Music and Worship
Fall. 3(3-0) 226 and approval of department.
Relationship of music and liturgy to Christian worship. Traditional liturgies and forms of service of the Christian churches with emphasis on function and place of music in worship.

463. Hymnology
Winter. 3(3-0) 226 and approval of department.
Greek and Latin hymns, canticles, and transition from psalmody into hymnody. Hymns and tunes studied with emphasis on their natural place in church year. Special attention to anthem settings of hymns and adaptation of traditional melodies, especially Gregorian.
423. Choral Repertoire for the Church  
Spring, Summer. 3(3-0) Approval of department.  
Choral literature for church choirs; emphasis on motets, anthems, responses, and materials for both youth and adult choirs.

424. Preparatory Musicology  
Fall. 3(3-0) 226, 292.  
A seminar dealing with research in various fields of musicology, including ethno-musicology.

425. Preparatory Musicology  
Winter, Summer. 3(3-0) 424.  
Selected topics in music history from the ancient Greeks to 1600.

426. Preparatory Musicology  
Spring. 3(3-0) 425.  
One or more broad areas in music history, analysis or aesthetics, chosen after consultation with the class.

4295. Band Materials  
Summer. 1(0-2) May re-enroll for credit. Fundamentals of music reading, analysis and performance of literature suitable for school bands.

433. Advanced Conducting  
Fall. 2(2-0)  
Continuation of baton techniques and analysis through study of orchestral and choral works.

434. Advanced Conducting  
Winter. 2(2-0) 433.  
Continuation of 433.

435. Advanced Conducting  
Spring, Summer. 2(2-0) 434.  
Continuation of 434.

438. Brass and Woodwind Techniques  
Summer. 2(1-2) Senior music majors.  
Materials and contemporary pedagogical practices of group wind instrumental instruction.

440. Fundamentals of Electronic Music  
Fall, Summer. 2(2-0) 382 or approval of department.  
Instruction in the use of the Moog designed synthesizer, mixer and recorders.

441. Fundamentals of Electronic Music  
Winter, Summer. 2(2-0) 440 or approval of department.  
Supervised use of the Moog synthesizer.

442. Creative Composition in Electronic Music  
Fall, Winter, Spring, Summer. Variable credit. May re-enroll for maximum of 6 credits. 441 or approval of department.  
Assigned use of the Electronic Music Studio.

450. Recreational Music  
Spring. Summer of odd-numbered years. 2(2-0) Majors.  
Organization and administration of a community music program for adults; community chorus, orchestra, and band. Non-symphonic instruments and their use in recreation. Summer camp and playground music. Recreational music as it is organized and used by industries.

462. Studio Teaching and Observation  
Fall. 2(2-2) 347, 348, 349.  
Supervised studio teaching in classes and private lessons plus one-hour seminar each week.

463. Studio Teaching and Observation  
Winter. 2(1-2) 462.  
Continuation of 462.

464. Studio Teaching and Observation  
Spring. 2(1-2) 463.  
Continuation of 463.

465. Practicum: Sacred Music  
Fall, Winter, Spring. 3(0-4) May re-enroll for a maximum of 6 credits. 314, 336, 348.  
Supervised experience in all phases of sacred music by assisting at adult and junior choir rehearsals and church services, service planning, preparation and performance.

470. Influence of Music on Behavior  
Fall. 3(3-0) Nine credits of psychology or approval of department.  
Study of the physiological and psychological effects of music; relation of music to health. Experimental studies, related philosophical and psychological theory will be reviewed.

471. Music Therapy Techniques  
Winter. 3(3-0) 470.  
Survey of procedures in music therapy; investigation of the rise of music as a tool in treatment of mentally ill, mentally and physically handicapped; introduction to hospital organization.

472. Music Therapy Techniques  
Spring. 3(3-0) 471.  
Continuation of 471.

480. Advanced Studies in Style and Form  
Fall. 2(2-1) 380, 381, 382.  
Continuation of 381.

481. Advanced Studies in Style and Form  
Winter. 2(2-1) 480.  
Continuation of 480.

482. Advanced Studies in Style and Form  
Spring. 2(2-1) 481.  
Continuation of 481.

483. Composition  
Fall, Winter, Spring. 3(2-0)  
May re-enroll for a maximum of 6 credits. 282 or approval of department.  
Guided projects in creative writing.

486. Psychology of Music  
Fall, Summer. 3(3-0) Approval of department. Interdepartmental with and administered by the Psychology Department.  
Musical behavior with emphasis on psychological aspects of perception, learning, affective response, and ability. Emphasis on social and cultural influences in forming musical tastes, including music in media music.

487. Psychology of Music  
Winter. Summer. 3(2-2) PSY 486.  
Interdepartmental with and administered by the Psychology Department.  
Basic research concepts and experimental methods in psychology of music research. Practical training in conducting experimental research of musical behavior.

495. Opera Workshop  
Fall, Winter, Spring. 2(2-4) May re-enroll for a maximum of 6 credits. Approval of department.  
Repertoire coaching, diction, interpretation. Study and performance of entire operas and excerpts from the standard and contemporary repertoire; production of musicals with Speech and Theatre Department; TV opera productions on Station WMST.

802. Seminar in History of Music  
Summer of odd-numbered years. 4(8-2)  
Critical study in depth of music literature and performance practices within historical perspective.

803. Seminar in Music Education  
Fall, Winter, Spring. 3 credits. May re-enroll for a maximum of 12 credits. Approval of department.

812. Research Problems in Music  
Fall, Winter, Spring, Summer.  
Variable credit.

813. Chamber Music  
Fall, Winter, Spring, Summer. 1(1-0)  
Approval of department.

815. Seminar in Chamber Music: 18th Century  
Fall, Summer. 2(2-0) Approval of department.  
Intensive study of selected chamber music works of the 18th century.

816. Seminar in Chamber Music: 19th Century  
Winter, Summer. 2(2-0) Approval of department.  
Intensive study of selected chamber music works of the 19th century.

817. Seminar in Chamber Music: 20th Century  
Spring, Summer. 2(2-0) Approval of department.  
Intensive study of selected chamber music works of the 20th century.

820. Music Workshop  
Summer. 1 to 6 credits. Approval of department.

824. Research Methods and Materials  
Fall, Winter, Summer. 3(3-0)  
A critical examination of encyclopedias, indices, and other aids to research.

825. Acoustics for Musicians  
Winter. Summer of even-numbered years. 3(3-0)  
Classical theory of sound, stressing its applications to musical instruments and the human voice.

830. Sixteenth Century Counterpoint  
Fall of even-numbered years, Summer. 3(3-0) 482 or approval of department.  
Study and writing of counterpoint based upon the works of Orlando Lasso and Palestrina.

831. Sixteenth Century Counterpoint  
Winter of odd-numbered years, Summer. 3(3-0) 536.  
Continuation of 830.

832. Sixteenth Century Counterpoint  
Spring of odd-numbered years, Summer. 3(3-0) 831.  
Continuation of 831 to include a study of modal counterpoint.

834. Seminar in Composition  
Fall, Winter, Spring. 3(3-0)  
May re-enroll for credit. 492.
Music

Descriptions - sacred and secular music, from A-110 through 917. Music of the Seventeenth Century is laid on the forms and styles of Polyphonic music to middle of fifteenth century.

Investigation of various developments and approaches to theory pedagogy.

Continuation of 881.

Approval of department.

899. Research
Fall, Winter, Spring, Summer. 3 credits for Applied Music majors; 2 credits for others. May re-enroll for credit.

Choral Technique and Materials
Spring, Summer. 3 credits for Applied Music majors. 2 credits for others. May re-enroll for credit.

Current literature in the field of music theory and approaches to musicology.

May re-enroll for a maximum of 9 credits. 482 or approval of department.

Contrapuntal Techniques
Fall, Winter, Spring, Summer. 4 credits. May re-enroll for a maximum of 3 credits. Approval of department.

Correlation of the areas of music theory as a basis for the study of 19th and 20th century music.

Materials of Music
Fall, Winter, Spring, Summer. 1 to 4 credits. 889.

Continuation of 880.

Materials of Music
Fall, Winter, Spring, Summer. 1 to 4 credits. 881.

Continuation of 881.

Research
Fall, Winter, Spring, Summer. Variable credit. Approval of department.

Medieval Music
Fall, Winter, Spring, Summer. 3 credits.

Investigation of various developments in European music to middle of Eleventh century. Some attention given to Gregorian Chant as well as to various types of secular Melody, but greater stress is laid on the forms and styles of Polyphonic music.

Renaissance Music
Winter. 3 credits.

Investigation of developments in European music from 1450 to 1550, tracing developments in both sacred and secular music.

Music of the Seventeenth Century
Spring. 3 credits.

Instrumental and vocal music of Early Baroque period.

Seminar in Musicology
Fall, Winter, Spring. 3 credits. May re-enroll for credit. 486 or approval of department.

Music Supervision
Summer of even-numbered years. 3 credits. Completion of undergraduate program in Music Education.

Current Tendencies in Music Education
Summer of odd-numbered years. 3 credits. Completion of undergraduate program in Music Education.

Analytical Studies in Music Literature
Fall, Summer. 3 credits. 382 and two years of music literature or approval of department. Melodic, formal, contrapuntal and harmonic analysis of music from plainsong to contemporary music.

Analytical Studies in Music Literature
Winter, Summer. 3 credits. Continuation of 960.

Continuation of 970.

Contrapuntal Techniques
Fall, Winter, Spring, Summer. 4 credits. May re-enroll for a maximum of 3 credits. Approval of department.

Advanced contrapuntal practice from the sixteenth century to the present.

Contrapuntal Techniques
Winter of even-numbered years. Summer. 3 credits. Continuation of 970.

Contrapuntal Techniques
Spring of even-numbered years. Summer. 3 credits. Continuation of 971.

Seminar in Theory
Fall, Winter, Spring, Summer. 3 credits. May re-enroll for a maximum of 9 credits. 482 or approval of department.

Research
Fall, Winter, Spring, Summer. Variable credit. Approval of department.

International Studies in Agriculture and Natural Resources
Summer. 3 to 9 credits. Approval of department.

Study-travel experience emphasizing contemporary problems affecting agriculture in the world, national, and local communities. Field trips, case studies, interviews with leading experts, government officials, community leaders. Supervised individual study.

Natural Resources and Modern Society
Spring, Summer. 3 credits. Juniors. Interdepartmental with the Forestry and the Resource Development Departments and administered by Forestry Department.

A survey of the social and economic significance of natural resources in modern industrial and urban society. Current problems of natural resources management and use are examined in terms of the society in which they exist.

NATURAL SCIENCE

University College

Alternative approaches or tracks are offered on an optional basis all of which meet the course objectives of 181, 182, 183. These are described briefly below and are designated by letters which are used as part of the course number for registration. No student may receive credit for more than one track within a course (181, 182, 183).

181. Natural Science
Fall. 4(2-3) Students may not receive credit in both 181 and 182. Approval of department.

The role of methods in science emphasizing the development and modification of systems of explanation. The nature of the cell and sexual reproduction as background for Mendelian gene theory and its modern modifications. Social implications are emphasized.

182. Natural Science
Winter. 4(2-3) Students may not receive credit in both 182 and 183. 181 or approval of department.

Methods in science continued with emphasis on evolutionary ideas regarding the origin of earth features and existing life forms. The origins and development of man is considered along with a number of modern problems.

183. Natural Science
Spring. 4(2-3) Students may not receive credit in both 183 and 191. 182 or approval of department.

Nature of science as exemplified by ideas from Physical Science. The Copernican Revolution is used as an example of the science-society interaction. Modern concepts of the nature of matter are also introduced.

191. Natural Science
(183.) Fall, Winter, Spring. 4(2-3)

A. The Copernican Revolution, Atomic Theory and Relativity related to man's attempt to find a unified view of nature. Emphasis on effects of science and society on one another.

B. Man's conception of nature and origin of the universe and social and philosophical implications of his changing views. Consideration of major controversies regarding man's place in the universe.

College of Agriculture and Natural Resources

NATURAL RESOURCES

202. Soils and Men's Environment
Winter. 3 credits. Interdepartmental with the Resource Development, and Fisheries and Wildlife Departments and Soil Science and administered by Soil Science.

Use of soil and water resources in a technological society as it relates to environmental quality. Nature of pollution problems and their possible solutions. Food production and world population.