

**MUSIC 204. Music Composition Technology (1)**

Two hours of activity.

Prerequisite: Music 104.

Current technology in electro-acoustic music composition, score preparation, performance practices. Open to music majors and minors only.

**MUSIC 205A. Comprehensive Musicianship (3)**

Prerequisite: Music 105B or passing placement examination.

Music theory, harmony, and musicianship. Instrumentation and notation, composition, and arranging. Open to music majors and minors only. Not open to students with credit in Music 205B, 305A, 305B, 405A, 405B.

**MUSIC 205B. Comprehensive Musicianship (3)**

Prerequisite: Music 205A with a grade of C (2.0) or better.

Tonal harmony in the common-practice period. Composition with ostinato forms. Open to music majors and minors only. Not open to students with credit in Music 305A, 305B, 405A, 405B.

**MUSIC 206A-206B. Aural Skills (1-1) Cr/NC**

Prerequisite for Music 206A: Music 105B. Prerequisite for Music 206B: Music 206A.

Preparation for Junior Level Aural Skills Examination. For music majors only.

**MUSIC 207. Composition Laboratory (1)**

Three hours of laboratory.

Prerequisite: Consent of instructor.

Original writing in different homophonic and polyphonic forms for various media. Maximum credit two units.

**MUSIC 210A-210B. Piano – Elementary Class Instruction (1-1)**

Two hours.

Prerequisites: For 210A: Music 110B with a grade of C (2.0) or better. For 210B: Music 210A with a grade of C (2.0) or better.

Continuation of Music 110A-110B. Music 210A not open to students with credit in Music 210B. (Music 210A formerly numbered Music 110C. Music 210B formerly numbered Music 110D.)

**MUSIC 212. Voice – Elementary Class Instruction (1) I, II**

Two hours.

Mastery of the fundamentals of voice. Not open to voice majors. (Formerly numbered Music 115.)

**MUSIC 214. Strings – Elementary Class Instruction (1)**

Two hours.

Fundamentals of string instruments by lecture and acquisition of elementary skills for purpose of gaining teaching and conducting skills in working with strings. Primarily for music education majors. (Formerly numbered Music 220.)

**MUSIC 215. Woodwinds – Elementary Class Instruction (1)**

Two hours.

Fundamentals of woodwind instruments by lecture and acquisition of elementary skills for purpose of gaining teaching and conducting skills in working with woodwinds. Primarily for music education majors. (Formerly numbered Music 225.)

**MUSIC 216. Brass – Elementary Class Instruction (1)**

Two hours.

Fundamentals of brass instruments by lecture and acquisition of elementary skills. (Formerly numbered Music 230.)

**MUSIC 217. Percussion – Elementary Class Instruction (1)**

Two hours.

Fundamentals of percussion through acquisition of elementary skill on the snare drum and by demonstration and lecture regarding all commonly used percussion instruments of definite and indefinite pitch. Not open to percussion majors. (Formerly numbered Music 235.)

**MUSIC 218. Guitar – Elementary Class Instruction (1)**

Two hours.

Open to all students interested in fundamentals of guitar and elementary music skills. Not open to guitar majors. (Formerly numbered Music 240.)

**MUSIC 246A. Practicum in Music Education I (2)**

One lecture and two hours of activity.

Prerequisite: Music 205B.

Introduction to music education. Exposure to music teaching profession at all grade levels before choosing an area of specialization.

**MUSIC 246B. Practicum in Music Education II (2)**

One lecture and two hours of activity.

Prerequisite: Music 246A with a grade of C (2.0) or better.

Methods and materials. Development of lesson plan and selection of appropriate materials and methods. Rehearsal techniques for elementary, junior high, and high school. Observations of public school master teachers.

**MUSIC 251. Performance Studies (1-2) I, II**

Thirteen one-half hour private lessons for one unit; thirteen one-hour private lessons for two units.

Prerequisite: Open only to music majors. Audition and approval by music faculty.

Studies in technical, stylistic, and aesthetic elements of artistic performance. Maximum credit for Music 251 is eight units.

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|----------------------|---|
| <b>A.</b> Keyboard   | <b>G.</b> Classical Guitar                    |
| <b>B.</b> Voice      | <b>H.</b> Harp                                |
| <b>C.</b> Woodwinds  | <b>I.</b> Jazz Instruments                    |
| <b>D.</b> Brass      | <b>J.</b> Medieval or Renaissance Instruments |
| <b>E.</b> Percussion | <b>K.</b> Non-Western Instruments             |
| <b>F.</b> Strings    | <b>L.</b> Composition                         |

**MUSIC 260. Electro-Acoustic Music Composition I (2)**

One lecture and two hours of activity.

Prerequisite: Music 160.

Sound sampling, musique concrete, subtractive synthesis, physics of sound and basic digital audio theory. Emphasis on application of techniques and theoretical knowledge to produce original musical compositions.

**MUSIC 261. Music of Latin America (1)**

Two hours of activity.

Study and performance of Afro-Cuban and Brazilian music with attention to both historical/cultural elements and music performance.

**MUSIC 266. Elements of Jazz II (2)**

Prerequisite: Music 166.

Harmonic analysis of standard and bebop repertoire, less common modes and dominant scales, solo transcription, analysis, and ear-training.

**MUSIC 296. Experimental Topics (1-4)**

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

**UPPER DIVISION COURSES  
(Intended for Undergraduates)**

**MUSIC 301. Recitals (1) Cr/NC I, II**

Preparation for individual solo performances and attendance at a minimum of 12 concerts or recitals in accordance with music requirements. Maximum credit four units.

**MUSIC 305A. Comprehensive Musicianship (3)**

Prerequisites: Music 205B with a grade of C (2.0) or better. Concurrent registration in Music 308A.

Counterpoint in 16th and 18th centuries. Composition of a two-voice motet and three part fugue. Instrumentation and choral reading. Open to music majors and minors only. Not open to students with credit in Music 305B, 405A, 405B.

**MUSIC 305B. Comprehensive Musicianship (3)**

Prerequisites: Music 305A with a grade of C (2.0) or better. Concurrent registration in Music 308B.

Theory and harmony of 19th and early 20th centuries. Analytic techniques, composition in sonata form. Open to music majors and minors only. Not open to students with credit in Music 405A and 405B.

**MUSIC 308A. Music History: Antiquity to Baroque (3)**

Prerequisites: Music 151. Concurrent registration in Music 305A.

European art music from ancient Greece through the Baroque. Evolution of musical style in a historical and cultural context. Interrelationships of music, politics, technology, economics, and ideology. Open to music majors and minors only.

**MUSIC 308B. Music History: Classic to Romantic (3)**

Prerequisite: Music 308A. Concurrent registration in Music 305B.

European art music from 1750 to beginning of 20th century. Evolution of musical style as a response to historical and cultural context. Interrelationships of music, politics, technology, economics, and ideology. Open to music majors and minors only.

**MUSIC 343. Music Literature for Children (3) I, II**

Prerequisite: Music 102 or 205B.

Analytical study of music suitable for children of all ages. Background information, musical structure and functions of this music in the lives of children.

**MUSIC 345. World Music in Contemporary Life (3) [GE] I, II**

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Folk, ancient, and modern art music of world cultures, including traditional music of Africa, Asia, Latin America, the United States and Europe, as they relate to contemporary culture. Concert attendance required. Not open to music majors.

**MUSIC 346. Practicum in Music Education III (2)**

One lecture and two hours of activity.

Prerequisites: Music 110B and 246B with a grade of C (2.0) or better.

Practical teaching applications. Students will develop and teach model lessons evaluated by students, faculty, and master teachers. Students choose a primary area of specialization and a master teacher in preparation for the final semester of the practicum series.

**MUSIC 347. Conducting (1)**

Prerequisite: Music 205B with a grade of C (2.0) or better.

Basic techniques of conducting. Baton technique, conducting patterns, score reading, elements of performance and interpretation. Practical experience in typical conducting situations.

**MUSIC 348. Choral Conducting (1)**

Prerequisite: Music 347 with a grade of C (2.0) or better.

Elements of baton technique and development of skills common to choral conducting. Representative literature and techniques for choral organizations studied and performed. Practical experience in typical conducting situations.

**MUSIC 349. Instrumental Conducting (1)**

Prerequisite: Music 347 with a grade of C (2.0) or better.

Elements of baton technique and development of skills common to instrumental conducting. Representative literature and techniques for instrumental organizations studied and performed. Practical experience in typical conducting situations.

**MUSIC 351. Great Music (3) [GE]**

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Significant music literature of the various historical periods with emphasis on the stylistic characteristics through directed listening. Not open to music majors.

**C.** History of Rock and Roll

**D.** Jazz in America

**MUSIC 360. Electro-Acoustic Music Composition II (2)**

One lecture and three hours of laboratory.

Prerequisite: Music 260.

Concepts, terminology, and history combined with composition and recording projects introducing analog electro-acoustic music with multi-track recording and analog synthesizers; or digital electro-acoustic music using digital synthesizers and computer software. May be repeated with new content. Maximum credit four units.

**MUSIC 361. Music of Indonesia (1)**

Two hours of activity.

Prerequisite: Upper division standing.

Study and performance of Indonesian music with attention to both historical/cultural elements and music performance on Javanese Gamelan.

**MUSIC 364. History of Jazz (3)**

Jazz style and forms as they have evolved historically. Classroom playing experience in jazz styles as a part of study. Designed for music majors and minors. Not open to students with credit in Music 364A-364B.

**MUSIC 366. Elements of Jazz III (2)**

Prerequisite: Music 266.

Post bop repertoire, altered modes and scales, solo transcription, analysis, and ear-training.

**MUSIC 367. Junior Recital (1) Cr/NC I, II**

Prerequisite: Junior standing in music.

Selection of literature for recital program not to exceed 30 minutes in length; theoretical analysis and historical study of scores chosen; preparation and public performance; and examination before committee of music faculty.

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**Performance Organization Courses  
(Music 369 through 389)**

The performance group courses are devoted to the study in detail and the public performance of a wide range of representative literature for each type of ensemble, and designed to provide students with practical experience in rehearsal techniques.

**MUSIC 369. Collegium Musicum (1) I, II**

Prerequisite: Consent of instructor.

Performance of medieval and renaissance music on reproductions of historical instruments. May be repeated with new content. See Class Schedule for specific content. Maximum credit four units.

**MUSIC 370. Chamber Music (1) I, II**

Three hours. Four hours for opera.

Prerequisite: Consent of instructor.

Sections for string, woodwind, brass, piano, vocal, and mixed ensemble groups of three or more players. May be repeated with new content. See Class Schedule for specific content. Maximum credit four units.

**MUSIC 374. Concert Band (1)**

Five hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

**MUSIC 375. Marching Band (2) I**

More than six hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for the ensemble. Practical experience in rehearsal technique. Maximum combined credit for Music 175 and 375 eight units.

**MUSIC 376. Wind Symphony (1) I, II**

Five hours per week.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

**MUSIC 377. Symphonic Band (1) I, II**

Five hours.

Prerequisite: Consent of instructor.

Study and performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

**MUSIC 380. Symphony Orchestra (1) I, II**

Five hours.

Prerequisite: Consent of instructor.

Maximum credit four units.

**MUSIC 384. Opera Theatre (2) I, II**

Six or more hours per week.

Interpretation and characterization of light and grand opera. Specific work in coordination of opera ensemble. Maximum credit eight units.

**MUSIC 385. Concert Choir (1) I, II**

Five hours.

Prerequisite: Consent of instructor.

Maximum credit four units.

**MUSIC 386. Chamber Singers (1) I, II**

Five hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for the ensemble. Practical experience in rehearsal technique. Maximum credit four units.

**MUSIC 389. Jazz Ensemble (1) I, II**

More than three hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

**MUSIC 405A. Comprehensive Musicianship (3)**

Prerequisites: Music 305B with a grade of C (2.0) or better. Concurrent registration in Music 408A.

Harmony and counterpoint in 20th century, from Impressionism to present. Analysis and composition in post-tonal or 12-tone techniques. Open only to music majors and minors only. Not open to students with credit in Music 405B.

**MUSIC 405B. Comprehensive Musicianship (3)**

Prerequisites: Music 405A with a grade of C (2.0) or better. Concurrent registration in Music 408B.

Musical developments in last half of 20th century. Independent projects in composing and arranging for small and large ensembles. Open to music majors and minors only.

**MUSIC 408A. Music History: Twentieth and Twenty-First Century (3)**

Prerequisites: Music 308B. Concurrent registration in Music 405A.

Art music from beginning of 20th century to present. Evolution of musical style in a historical and cultural context. Interrelationships of music, politics, technology, economics, and ideology. Open to music majors and minors only.

**MUSIC 408B. Music History: Jazz Survey and Improvisation (2)**

One lecture and two hours of laboratory.

Prerequisites: Music 408A. Concurrent registration in Music 405B.

Historical and theoretical overview of jazz art music tradition. Rhythmic, harmonic, and melodic components. Analytical score study. Practical experience in modal and tonal jazz improvisation. Open only to music majors and minors.

**MUSIC 445. Performing Arts and Culture (1)**

Prerequisite: Upper division standing.

Exploration of traditional performing arts of different contemporary world cultures, with emphasis on kinesthetic and psychological aspects of experience of performance. Open to all upper division students. May be repeated with new content. Maximum credit three units.

**MUSIC 446. Practicum in Music Education IV (2)**

One lecture and two hours of activity.

Prerequisites: Music 205B, 210A, 346, 347 with a grade of C (2.0) or better.

Early field experience. Students will complete 20 hours of public school teaching in their area of specialization. Master teachers will provide on-site guidance and evaluation. Field experience and increased effectiveness discussed.

**MUSIC 451. Performance Studies (1-2) I, II**

Thirteen one-half hour private lessons for one unit; thirteen one-hour private lessons for two units.

Prerequisite: Open only to music majors. Audition and approval by music faculty.

Studies in technical, stylistic, and aesthetic elements of artistic performance. Maximum credit for Music 451 is eight units.

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| <b>A.</b> Keyboard   | <b>G.</b> Classical Guitar                    |
| <b>B.</b> Voice      | <b>H.</b> Harp                                |
| <b>C.</b> Woodwinds  | <b>I.</b> Jazz Instruments                    |
| <b>D.</b> Brass      | <b>J.</b> Medieval or Renaissance instruments |
| <b>E.</b> Percussion | <b>K.</b> Non-Western Instruments             |
| <b>F.</b> Strings    | <b>L.</b> Composition                         |

**MUSIC 460. Art of Recording (3)**

Two lectures and three hours of activity.

Prerequisite: Music 360.

Creation of audio recordings of artistic merit. Vocal/instrumental microphone techniques for classical, jazz, rock; recording audio design, construction; acoustical properties, theories, mathematics.

**MUSIC 466. Elements of Jazz IV (2)**

Prerequisite: Music 366.

Atonal and aeromedical theories and philosophy, research paper, solo transcription, analysis, and ear-training.

**MUSIC 496. Experimental Topics (1-4)**

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

**MUSIC 497. Senior Recital (2) Cr/NC I, II**

Prerequisite: Senior standing in music.

Selection of literature for recital program not to exceed one hour in length; theoretical analysis and historical study of scores chosen; preparation and public performance; and examination before committee of music faculty.

**MUSIC 499. Special Study (1-3) I, II**

Prerequisite: Consent of the music director.

Individual study. Maximum credit six units.

**UPPER DIVISION COURSES  
(Also Acceptable for Advanced Degrees)**

**MUSIC 507. Composition Laboratory (1)**

Three hours of laboratory.

Prerequisites: Music 207 with a grade of C (2.0) or better and consent of instructor.

Continuation of Music 207. Maximum credit two units.

**MUSIC 515. Professional Orientation for Music Performers (2)**

One lecture and two hours of activity.

Prerequisites: Twelve units of upper division or graduate standing in B.M. or M.M. degree. Others by consent of instructor.

Conditions met in professional music world as well as opportunities available. Auditions, contracts, legal and tax responsibilities, media and press promotion, grants, professional management, apprenticeships.

**MUSIC 516. Performance Practice Forum (1)**

Two hours of activity.

Prerequisite: Consent of instructor.

Musical style, repertoire, presentation, and evaluation as embodied in a musical performance. May be repeated with new content. Maximum credit four units.

**MUSIC 541. Performance Studies Pedagogy (3)**

Two lectures and three hours of laboratory.

Prerequisite: Consent of instructor.

Teaching beginning and intermediate applied music. Survey and evaluation of teaching materials. Observation of individual or group lessons.

- A. Piano
- C. Voice

**MUSIC 542. Performance Studies Laboratory (2)**

One lecture and three hours of laboratory.

Prerequisites: For 542A: Music 541A with a grade of C (2.0) or better. For 542C: Music 541C with a grade of C (2.0) or better.

Practical experience in the teaching of individual or group lessons.

- A. Piano
- C. Voice

**MUSIC 543. Diction (1)**

Principles of pronunciation and enunciation. Application to song and opera in English, Italian, German, and French.

**MUSIC 554. Music Literature (2)**

Prerequisite: Music 205B with a grade of C (2.0) or better.

Study of literature in areas listed. Analysis of scores and recordings. See Class Schedule for specific content. Maximum credit six units applicable to a master's degree.

- A. Chamber Music Literature
- B. Orchestral Literature
- C. Band Literature
- D. Song Literature
- E. Choral Literature
- G. Keyboard Literature (Seventeenth Century through Beethoven)
- H. Keyboard Literature (Schubert to the Present)

**MUSIC 560. Music and Visual Media (3)**

Two lectures and three hours of activity.

Prerequisite: Music 460.

Techniques and aesthetics of combining music/sounds and visual elements, including contemporary film scoring techniques, sound design for installations and performance art, video game scoring and experimental immersive 3-D virtual reality.

**MUSIC 561. Area Studies: Ethnomusicology (3)**

Prerequisite: Music 305B with a grade of C (2.0) or better.

Music of a specific culture. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

**MUSIC 566A-566B. Jazz Arranging and Composition (2-2)**

Prerequisite: Music 305B with a grade of C (2.0) or better.

Analysis of jazz compositions and arrangements; arranging and composing for large and small jazz ensembles.

**MUSIC 569. Advanced Collegium Musicum (1) I, II**

Prerequisite: Music 369.

Preparation and performance of representative works by a specific medieval or renaissance composer on historical instruments. May be repeated with new content. See Class Schedule for specific content. Maximum credit four units.

**MUSIC 570. Advanced Chamber Music (1) I, II**

Three hours.

Prerequisite: Consent of instructor.

Study and public performance of established repertory as well as new compositions. Sections for string, woodwind, brass, piano, vocal, and mixed ensemble groups of three or more players. May be repeated with new course content. See Class Schedule for specific content. Maximum credit four units.

**MUSIC 576. Wind Symphony (1) I, II**

Five hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

**MUSIC 577. Symphonic Band (1) I, II**

Five hours.

Prerequisite: Consent of instructor.

Study and performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

**MUSIC 580. Symphony Orchestra (1) I, II**

Five hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

**MUSIC 584. Opera Theatre (2)**

Six or more hours per week.

Prerequisite: By audition.

Interpretation and characterization of light and grand opera. Specific work in coordination of opera ensemble. Maximum credit eight units of which six units are applicable to a master's degree.

**MUSIC 585. Concert Choir (1) I, II**

Five hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

**MUSIC 586. Chamber Singers (1) I, II**

Five hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for the ensemble. Practical experience in rehearsal technique. Maximum credit four units.

**MUSIC 589. Jazz Ensemble (1) I, II**

Three hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

**MUSIC 590. Advanced Practicum in Music (3)**

Prerequisite: Consent of instructor in area of practicum.

Students will be assigned to appropriate class sections within selected undergraduate area as instructional assistants under staff supervision.

**MUSIC 592. Analogs in Music, Art, and Literature (3)**

Prerequisite: At least one survey course in music history or appreciation, art history, or comparative literature.

Cross-influences and correspondences in the arts from the standpoints of style, texture, rhythm, and form.

**MUSIC 596. Special Topics in Music (1-3)**

A specialized study of selected topics from the several areas of music. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

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**GRADUATE COURSES**  
**Refer to the *Graduate Bulletin*.**

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## Natural Science (N SCI)

*In the College of Sciences*

*Administered by the Department of Physics*

### LOWER DIVISION COURSE

#### N SCI 100. Physical Science (3) [GE] I, II

Conceptual approach to major issues in physics and chemistry, including principles of motion and energy and structure and properties of matter. Effects of physical science and technology on individuals and human society.

### UPPER DIVISION COURSES (Intended for Undergraduates)

#### N SCI 310. Science in Science Fiction (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

Comparison of science portrayed in science fiction literature and mass media with science as understood by practicing scientists, emphasizing theoretical frameworks such as relativity, quantum mechanics, and evolution, and how authors work within or against such frameworks.

#### N SCI 315. History of Science and Technology (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

Ethical, moral, social, and cultural implications of significant issues and ideas in science and technology. History of development of these ideas from ancient Greek thinkers to contemporary scientists.

#### N SCI 317. Development of Scientific Thought (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

Basic scientific concepts and their historical development with emphasis on the problem of theory construction. The relationship between disciplined imagination and observational fact, as illustrated by selected case histories. Limitations of scientific inquiry.

#### N SCI 333. Technology and Human Values (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

Development of technology from the Middle Ages to present. Ethical, moral, social, cultural, and organizational implications as to how societies acquire technology.

#### N SCI 412. Processes and Inquiry in the Physical Sciences (4) I, II

Three lectures and two hours of activity.

Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

Investigation of processes of inquiry and rational thinking skills characteristic of the physical sciences. (Formerly numbered Natural Science 412A.)

### UPPER DIVISION COURSE (Also Acceptable for Advanced Degrees)

#### N SCI 596. Special Topics in Natural Science (1-4) I, II, S

Prerequisite: Minimum ten units of natural science.

Selected topics in natural science for preservice and inservice elementary and secondary teachers and candidates for the M.A. in education. May be repeated with consent of instructor. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

### GRADUATE COURSES Refer to the *Graduate Bulletin*.

## Naval Science (NAV S)

*In the College of Professional Studies and Fine Arts*

### LOWER DIVISION COURSES

#### NAV S 101. Introduction to Naval Science (2) I

Structure, principles, and practices; lines of command and control; logistical organizations; functions and services of major components of the Navy and Marine Corps; shipboard organization; ethics and basic leadership skills.

#### NAV S 102. Naval Engineering (3) II

Ship characteristics and types including hull, electrical, auxiliary systems, stability and damage control. Operation advantages and disadvantages of steam, gas turbine, and diesel propulsion engines receive in-depth study. Leadership topics in an engineering setting.

#### NAV S 201A. Naval Leadership and Management I (3) I

Prerequisites: Naval Science 101 and 102.

Ethics and integrity, progressing through management theory and practical functions of management, culminating with module on leadership. Exposure to complex ethical, managerial, and leadership issues.

#### NAV S 202. Sea Power and Maritime Affairs (3) II

Sea power and maritime affairs; general concept of sea power including Merchant Marine; role of naval warfare components used to support the Navy's mission; sea power as an instrument of national policy; comparative study of US and Soviet strategies.

### UPPER DIVISION COURSES (Intended for Undergraduates)

#### NAV S 301. Navigation (3)

Piloting, navigation, maneuvering, rules of nautical road. Use of charts, visual and electronic aids, operation of magnetic and gyro compasses, relative motion vector analysis, formation tactics, and ship employment. Tides, currents, wind, weather, navigation instruments, and characteristics of electronic navigation.

#### NAV S 302. Naval Operations (3)

Prerequisite: Naval Science 301.

Naval operations and operations analysis, ship handling, and afloat communications. Case analyses stress practical application of skills. Leadership traits in themes of communication counseling and conflict resolution applicable to naval operations.

#### NAV S 310. Evolution of Strategic Operations (3) II

Forms of warfare through history to formulate sense of historical continuity in evolution of warfare, to develop a basic sense of strategy and alternative military actions, and to explore impact of historical precedent on military thought and actions.

#### NAV S 401A. Naval Weapons (3) I

Prerequisite: Naval Science 302.

Develop working foundation and understanding of diversity and complexity of Navy and Marine Corps weapons systems including target detection and tracking, radar, sonar, electronic warfare systems, weapons warheads, fuzing, propulsion, guidance, launching, and fire control systems.

#### NAV S 402. Naval Leadership and Ethics (3) II

Prerequisite: Naval Science 201A.

Naval leadership and management with emphasis on military justice administration, naval personnel management, material management, and administration of discipline.

#### NAV S 410. Amphibious Operations (3) I

Amphibious warfare, doctrinal origins, and its evolution as an element of naval policy during the twentieth century.

N SCI

## Nursing (NURS)

*In the College of Health and Human Services*

### LOWER DIVISION COURSES

#### **NURS 101. Introduction to Nursing (3) Cr/NC I, II**

Nursing from a historical, current, and future perspective. Philosophy and science of nursing, nursing specialties, and academic preparation for professional nursing practice. Not required for the major.

#### **NURS 202. Client Assessment (4) I, II**

Two lectures and six hours of laboratory.

Prerequisites: Admission to nursing program and concurrent registration in Nursing 206 and Biology 261.

Determining and measuring variables relevant to assessment of psychosocial and physical functioning.

#### **NURS 206. Nursing Practice I (5) I, II**

Three lectures and six hours of laboratory.

Prerequisites: Admission to nursing program and concurrent registration in Nursing 202 and Biology 261.

Basic nursing skills and integration of diagnosis, planning, and implementation of nursing care. Application of nursing process.

#### **NURS 252. Nursing Practice II (5) I, II**

Three lectures and six hours of laboratory.

Prerequisites: Nursing 202, 206, Biology 261, and concurrent registration in Nursing 254.

Focus on psychological, social and biological stressors affecting man's health status and the modalities of nursing intervention which promote health. Emphasis on developmental and situational stressors commonly experienced in modern society and man's adaptive and maladaptive behavioral and biological responses from adulthood through senescence.

#### **NURS 254. Nurse-Client Relationships: Cultural and Mental Health Concepts (3) I, II**

Prerequisites: Nursing 202 and 206; concurrent registration in Nursing 252.

Nurse-client communication and application to clinical nursing practice. Origins of a variety of communication styles. Cultural and mental health concepts related to communication.

### UPPER DIVISION COURSES (Intended for Undergraduates)

#### **NURS 304. Clinical Pharmacology in Nursing Practice (3) I, II**

Prerequisites: Nursing 252, 254; concurrent registration in Nursing 308, 314.

Major classifications of drugs; pharmacological and toxicological activity; clinical applications. Role of nurse in assessment, intervention, and patient education. (Formerly numbered Nursing 456.)

#### **NURS 307. Nursing Research (3) I, II**

Prerequisites: Mathematics/Quantitative Reasoning General Education; Nursing 304, 308, 314; concurrent registration in Nursing 354 and 356.

Nursing research process. Emphasis on identification of researchable questions and beginning critiquing ability.

#### **NURS 308. Adult Health Nursing (6) I, II**

Three lectures and nine hours of laboratory.

Prerequisites: Nursing 252, 254; concurrent registration in Nursing 304 and 314.

Application of theories of stressors and/or biological responses specifically affecting the adult on the health-illness continuum. Laboratory focuses on the application of the nursing process in implementing preventive, supportive, and restorative therapeutic modalities which assist the adult client to reestablish, maintain, or develop new adaptive responses.

#### **NURS 312. Concepts in Professional Nursing (3) I, II**

Prerequisite: Admission to the RN to BS program.

Concepts in professional nursing. Differentiation of professional practice with emphasis on stress theory, therapeutic communication, values clarification, and legal aspects. Not open to generic students.

#### **NURS 314. Gerontological Nursing (3) I, II**

Two lectures and three hours of laboratory.

Prerequisites: Nursing 252, 254; concurrent registration in Nursing 304 and 308.

Theory and selected laboratory experience focusing on stressors affecting elderly on health-illness continuum. Gerontologic nursing in a variety of settings.

#### **NURS 350. Women's Health Across the Lifespan (3) [GE] I, II**

Prerequisite: Completion of the General Education requirement in Foundations II.A. Natural Sciences and Quantitative Reasoning.

Explores health issues women face across their lives. Focus on developing knowledgeable users of research on causes of and risk factors for health problems. Not applicable to nursing majors.

#### **NURS 354. Nursing Care of the Childbearing Family (5) I, II**

Two lectures and nine hours of laboratory.

Prerequisites: Nursing 304, 308, 314; concurrent registration in Nursing 307 and 356.

Family-centered focus encompassing adaptive and maladaptive responses to stressors in the maternity cycle and their effect on the neonate. Clinical laboratory focuses on the application of nursing theory and process in providing preventive, supportive and restorative care to mothers and neonates.

#### **NURS 356. Parent-Child Nursing (5) I, II**

Two lectures and nine hours of laboratory.

Prerequisites: Nursing 304, 308, 314; Child and Family Development 270 or Psychology 230; concurrent registration in Nursing 307 and 354.

Stressors affecting the child on health-illness continuum. Nursing theory and laboratory focuses on application of nursing process in providing preventive, supportive and restorative therapeutic modalities in a variety of settings. Emphasis on the child in the family and the necessary intervention to promote adaptation of the child to attain, maintain or regain an optimum level of health.

#### **NURS 397. Preparation for Clinical Practice (1) Cr/NC I, II**

Two hours per week of supervised practice.

Prerequisite: Admission to the School of Nursing.

Supervised practice of nursing skills and techniques. Course is elective for students. **Credit earned in this course not applicable to bachelor's degree.**

#### **NURS 414. Community Health Nursing (6) I, II**

Three lectures and nine hours of laboratory.

Prerequisites: Nursing 307, 354, 356; concurrent registration in Nursing 416.

Assessment and utilization of community health care concepts and delivery with emphasis on promotion of health, prevention of illness and individual and group teaching techniques. Consideration given to cultural aspects of health care.

#### **NURS 416. Psychiatric-Mental Health Nursing (5) I, II**

Three lectures and six hours of laboratory.

Prerequisites: Nursing 307, 354, 356; Psychology 351; concurrent registration in Nursing 414.

Theory and clinical laboratory in application of nursing process to care of clients evidencing maladaptive responses to psychosocial stressors. Presentation of theories describing and explaining maladaptive behaviors and application of nursing interventions in a variety of treatment modalities.

#### **NURS 452. Basic Concepts in Critical Care Nursing (5) I, II**

Three lectures and six hours of laboratory.

Prerequisites: Nursing 414 and 416; concurrent registration in Nursing 453, 458, and 460.

Theory and selected laboratory experience in care of clients with complex health problems requiring intensive nursing care. Consideration given to student's preference for specific clinical area of concentration.

#### **NURS 453. Basic EKG Monitoring (1) Cr/NC I, II**

Prerequisite recommended: Concurrent registration in Nursing 452.

Basic electrophysiological and interpretive concepts necessary for identification and management of supraventricular and ventricular rhythms.

**NURS 454. Primary Health Care Nursing (5) I, II**

Three lectures and six hours of laboratory.

Prerequisites: Nursing 414 and 416; concurrent registration in Nursing 458 and 460.

Theory and selected laboratory experiences in primary health care settings. Implementation of expanded role of professional nurse in primary care. Major primary care health problems. Health monitoring, continuity of care, epidemiological concepts, risk appraisal, health teaching, counseling, motivation.

**NURS 458. Nursing Management and Leadership (3) I, II**

(Offered only as a distance education course.)

Prerequisites: Nursing 414 and 416; concurrent registration in Nursing 460 and Nursing 452 or 454.

Theories and functions of nursing management and leadership within health care system. Economics of health care.

**NURS 458L. Nursing Management and Leadership Laboratory (2)**

Six hours of laboratory.

Prerequisite: Concurrent registration in Nursing 458.

Laboratory experience in nursing management and leadership.

**NURS 460. Professional Development (2) I, II**

Prerequisites: Nursing 414 and 416; concurrent registration in Nursing 458 and Nursing 452 or 454.

Preparation for professional role in nursing. Emphasis in socio-economic, political, and legal aspects of nursing. Discussions of advocacy, ethics, and current issues.

**NURS 496. Experimental Topics (1-4) I, II**

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

**NURS 498. Cooperative Education Supervised Practice (2-6) Cr/NC I, II, S**

Seminar: Two hours biweekly. Clinical hours arranged by student and employer.

Prerequisite: Nursing 308.

Supervised practice in application of previously learned knowledge and skills in selected clinical agencies. Professional interaction with other health care workers to strengthen professional nursing identity. Work under supervision of registered nurse preceptor and faculty coordinator. May be repeated. Maximum credit two units applicable to a bachelor's degree.

**NURS 499. Special Study (1-3) I, II**

Prerequisites: Nursing 308 and consent of instructor.

Individual study. Maximum credit six units.

**UPPER DIVISION COURSES**

(Also Acceptable for Advanced Degrees)

**NURS 500. Advanced Health Assessment and Health Promotion (4) I**

Three lectures and three hours of laboratory.

Prerequisite: Consent of graduate or credential adviser.

Physical and psychosocial assessment techniques, health promotion strategies for select populations.

**NURS 596. Special Topics in Nursing (1-3)**

Prerequisites: Completion of 30 upper division units in nursing or graduate status; 3.0 grade point average.

Selected topics in the practice of nursing. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum credit of three units of 596 applicable to a master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

**GRADUATE COURSES**

Refer to the *Graduate Bulletin*.

**Nutrition (NUTR)**

*In the Department of Exercise and Nutritional Sciences  
In the College of Professional Studies and Fine Arts*

**LOWER DIVISION COURSES****NUTR 101. Professional Issues: Foods and Nutrition (1) I, II**

Prerequisite: Rhetoric and Writing Studies 100.

Philosophical basis of foods and nutrition and relations of its specialties to the field as a whole.

**NUTR 107. Nutrition Today (3) I, II**

Obtaining nutritional needs from a varied food supply.

Not open to foods and nutrition majors or students with credit in Nutrition 201.

**NUTR 201. Fundamentals of Nutrition (3) I, II**

Prerequisites: Biology 100; Chemistry 100 or 200. **Proof of completion of prerequisites required:** Copy of transcript.

Role of nutrition in health promotion and disease prevention. Current concepts, controversies, and dietary recommendations from a scientific perspective. (Formerly numbered Nutrition 204.)

**NUTR 202. Nutrition for Athletes (3)**

Prerequisite recommended: Nutrition 107.

Review of basic diet which will provide nutritional adequacy. Analysis of current theories and practices related to nutrition and athletic performance.

**NUTR 203. Cultural Aspects of Food and Nutrition (3)**

Prerequisite: Completion of a General Education course in 1) Oral Communication, 2) Composition, or 3) Intermediate Composition and Critical Thinking.

Food habits and health beliefs about foods and nutrition. Regional and ethnic influences.

**NUTR 205. Food Preparation (5) I, II**

Three lectures and six hours of laboratory.

Prerequisites: Grade of C or better in Nutrition 101 and Chemistry 100 and 130 (or concurrent registration in Chemistry 231). **Proof of completion of prerequisites required:** Copy of transcript.

Composition, preparation, preservation, sensory and consumer evaluation of foods.

**NUTR 296. Experimental Topics (1-4)**

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

**UPPER DIVISION COURSES  
(Intended for Undergraduates)****NUTR 301. Science of Foods (3) I, II**

Prerequisites: Nutrition 205 and Biology 210. **Proof of completion of prerequisites required:** Copy of transcript.

Physical, chemical, nutritional, and functional properties and quality attributes of foods and food additives; food handling, changes and interactions of food components induced by processing and storage; food laws, regulations, legislation, and food safety issues.

**NUTR 302. Advanced Nutrition (3) I, II**

Prerequisites: Nutrition 201, Biology 336, and one course in biochemistry. Concurrent registration in Nutrition 302L. **Proof of completion of prerequisites required:** Copy of transcript.

Integration of cellular, physiological, and biochemical relationships with human nutrient requirements.

**NUTR 302L. Advanced Nutrition Laboratory (2) I, II**

Six hours of laboratory.

Prerequisites: Nutrition 201, Biology 336, and one course in biochemistry. Concurrent registration in Nutrition 302. **Proof of completion of prerequisites required:** Copy of transcript.

Application and evaluation of techniques used to assess nutritional status, including basic methods, experimental animal and human studies.

**NUTR 303. Quantity Food Production (2) I, II**

Prerequisites: Nutrition 205 or Information and Decision Systems 302. Concurrent registration in Nutrition 303L.

Quantity food production service delivery systems. Skills for food safety, recipe standardization, menu planning, purchasing, production operations, and quality standards. Intended for majors in foods and nutrition and hospitality and tourism management.

**NUTR 303L. Quantity Food Production (1)**

Three hours of laboratory.

Prerequisites: Nutrition 205 or Information and Decision Systems 302. Concurrent registration in Nutrition 303.

Practical applications of quantity food production systems and methods with emphasis on food safety (HACCP), menu planning, purchasing, facilities and equipment, and food quality. Intended for majors in foods and nutrition and hospitality and tourism management.

**NUTR 304. Nutrition Throughout the Life Span (3)**

Prerequisite: Nutrition 201.

Factors affecting nutrient needs and ways to meet nutrient requirements across the life span. Not open to students with credit in Nutrition 208.

**NUTR 309. Eating Disorders and Weight Control (2) Cr/NC I, II**

Prerequisite: Upper division standing in foods and nutrition or kinesiology or other majors with consent of instructor.

Obesity and other eating disorders. Review of etiology, incidence, socioeconomic influences, pathogenesis and treatments. Treatment techniques practiced include modification of diet, activity and behavior. Of interest to those wishing to do weight control counseling.

**NUTR 388. Dietetic Practice I (1)**

Prerequisites: Admission to SDSU Didactic Program in Dietetics, Nutrition 201, 205, and consent of instructor.

Practical experience in food service and medical nutritional therapy for future dietitians.

**NUTR 398. Supervised Field Experience (1-3)**

Three hours per week for 15 weeks per unit of course credit.

Prerequisite: Upper division standing required; limited to foods and nutrition majors.

Supervised practical experience in areas of food and nutrition. Maximum credit six units.

**NUTR 404. Food Systems Management (3) I, II**

Prerequisites: Nutrition 303 and 303L.

Managerial functions in food service systems.

**NUTR 405. Experimental Food Science (3) I, II**

One lecture and six hours of laboratory.

Prerequisite: Nutrition 301. **Proof of completion of prerequisite required:** Copy of transcript.

Application of principles and methods of physical and sensory evaluation and food component analysis to conventional and fabricated foods; effects of additives and ingredient variations; project studies; data interpretation and report writing.

**NUTR 406. Diet Therapy (4) I, II**

Prerequisites: Nutrition 302 and 302L. **Proof of completion of prerequisites required:** Copy of transcript.

Dietary management of pathological and debilitating diseases.

**NUTR 407. Medical Nutrition Therapy Laboratory (1)**

Three hours of laboratory.

Prerequisites: Admission to SDSU Didactic Program in Dietetics, Nutrition 302, 302L, and concurrent registration in Nutrition 406.

Required for Didactic Program in Dietetics competencies established by the American Dietetic Association. Builds multi-level skills for dietetic practice to assess nutritional status and to develop care plans for patients.

**NUTR 488. Dietetic Practice II (1)**

Prerequisites: Admission to SDSU Didactic Program in Dietetics, Nutrition 302, 302L, 303, 303L, 388, and consent of instructor.

Advanced practical experience in food service and medical nutrition therapy for future dietitians.

**NUTR 496. Experimental Topics (1-4) I, II**

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

**NUTR 499. Special Study (1-3) I, II**

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

**UPPER DIVISION COURSES  
(Also Acceptable for Advanced Degrees)**

**NUTR 510. Nutrition and Community Health (3) I, II**

Two lectures and three hours of activity.

Prerequisites: Grade of C or better in Nutrition 302, 302L, Nutrition 203, 304, and consent of instructor.

Nutritional problems in the community with consideration of their resolution. Field placement experience required.

**NUTR 596. Advanced Studies in Nutrition (1-6)**

Prerequisite: Nine upper division units in nutrition.

Advanced study of selected topics. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of nine units of 596. No more than six units of 596 may be applied to either the bachelor's or master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

**GRADUATE COURSES  
Refer to the *Graduate Bulletin*.**

**Oceanography (OCEAN)**

*Administered by the  
Department of Geological Sciences*

**LOWER DIVISION COURSE****OCEAN 100. The Ocean Planet (4) [GE]**

Three lectures and three hours of laboratory.

Physical, chemical, geological, and biological foundations of the global ocean system, with emphasis on science as a process and its role in environmental issues from global climate change to local pollution.

**UPPER DIVISION COURSES  
(Intended for Undergraduates)**

**OCEAN 320. The Oceans (3) [GE] I, II**

Prerequisites: One introductory college course in a life science and one in a physical science, and completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

The ocean system, its influence on life, climate, the earth, and humankind.

**OCEAN 496. Experimental Topics (1-4)**

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

**For additional courses in Marine Studies see:**

Biology 305. Scientific Scuba Diving  
Biology 306. Scientific Scuba Diving for Certified Divers  
Biology 515. Marine Invertebrate Biology  
Biology 517. Marine Ecology  
Biology 520. Ichthyology  
Economics 454. Economics of the Ocean  
Geography 504. Coastal and Submarine Physiography  
Geography 588. Intermediate Remote Sensing of Environment  
Geological Sciences 540. Marine Geology  
Geological Sciences 545. Descriptive Physical Oceanography

## Persian

*In the Department of Linguistics and  
Asian/Middle Eastern Languages  
In the College of Arts and Letters*

### LOWER DIVISION COURSES

Native speakers of Persian will not receive credit for taking lower division courses in Persian except with advance approval from the department.

No credit will be given for Persian 101 and 102 taken out of sequence.

#### PERS 101. Elementary Modern Persian I (4) [GE]

Introduction to modern Persian and Persian writing system. Development of speaking, listening, and reading skills using multimedia materials. Vocabulary for everyday topics and develop culturally appropriate discourse strategies for everyday situations. Not open to students who have completed three years of high school Persian unless the third course was completed five or more years ago. Not open to students with credit in Persian 102.

#### PERS 102. Elementary Modern Persian II (4) [GE]

Prerequisite: Persian 101 or two years of high school Persian.

Continuation of Persian 101. Development of speaking, listening, and reading skills using multimedia materials. Vocabulary for everyday topics and develop culturally appropriate discourse strategies for everyday situations. Not open to students who have completed four years of high school Persian unless the fourth course was completed five or more years ago.

#### PERS 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## Philosophy (PHIL)

*In the College of Arts and Letters*

### LOWER DIVISION COURSES

#### PHIL 101. Introduction to Philosophy: Ethics (3) [GE] I, II

Philosophical inquiry, with emphasis on problems of moral value. Students are encouraged to think independently and formulate their own tentative conclusions concerning a variety of vital contemporary issues facing individuals and society.

#### PHIL 102. Introduction to Philosophy: Knowledge and Reality (3) [GE] I, II

Introduction to philosophical inquiry with emphasis on problems of knowledge and reality. Students are encouraged to think independently and formulate their own tentative conclusions.

#### PHIL 103. Historical Introduction to Philosophy (3) [GE]

Introduction to philosophical inquiry through study of the works of major philosophers in their historical contexts.

#### PHIL 110. Critical Thinking and Composition (3) [GE] I, II

Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements and Africana Studies 120 or Chicana or Chicano Studies 111B or English 100 or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101. **Proof of completion of prerequisites required:** Test scores or verification of exemption; grade report or copy of transcript.

Introduction to critical thinking and writing. Evaluation and development of correct reasoning and effective style and organization in argumentative writing. Correct deductive and inductive reasoning. Fallacies. Critical appraisal of evidence. Construction of rebuttals and counter-arguments.

#### PHIL 120. Introduction to Logic (3) [GE] I, II

Prerequisite: Satisfaction of the Entry-Level Mathematics requirement.

Introduction to deductive and inductive logic. Logic and language. Analysis of fallacies. Uses of logic in science and in daily life.

#### PHIL 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

### UPPER DIVISION COURSES (Intended for Undergraduates)

**NOTE:** Students taking 300-level courses for the major will be required to do extra work to be arranged with the instructor.

#### PHIL 305. Classics of Western Philosophy (3) [GE]

Prerequisites: Upper division standing, and completion of the General Education requirement in Foundations II.C., Humanities.

Analysis of major texts selected from diverse historical periods in western philosophy. Texts will illustrate different world views (e.g., Platonism, Stoicism, Skepticism) and their relationship to other disciplines and to present world views.

#### PHIL 310. Philosophy and Human Nature (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Concept of human nature. Descriptive and normative aspects of major theories of human nature.

#### PHIL 329. Social Ethics (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Ethical issues of contemporary life. Individualism vs. collectivism; democracy vs. dictatorship; ethical problems arising in law, medicine, business, government and interpersonal relationships.

#### PHIL 330. Medical Ethics (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Value judgments upon which medicine is based and the ethical issues which medicine faces.

#### PHIL 332. Environmental Ethics (3) [GE]

Prerequisite: Completion of General Education requirement in Foundations II.C., Humanities.

Development of traditional values concerning the natural environment. Reasons for altering values in light of modern changes in relationship of human beings to the environment. Application of ethical principles to actions affecting the environment.

#### PHIL 333. Philosophy of Technology (3) [GE]

Prerequisite: Completion of General Education requirement in Foundations II.C., Humanities.

Nature of technology. Ethical aspects of social, political, and environmental problems associated with rapid development of technology over the last century. Responses to these problems by contemporary philosophers.

#### PHIL 334. Philosophy and Literature (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Study of literature of philosophical significance and of philosophical problems of literature.

#### PHIL 351. Chinese Philosophy (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Philosophical traditions which have shaped the intellectual life and culture of China. Emphasis on foundational texts surviving from pre-Han China.

#### PHIL 411. Ancient Western Philosophy (3)

Prerequisite: Three units in philosophy.

Ancient western philosophy through the third century A.D.

PERS

**PHIL 412. Medieval Philosophy (3)**

Prerequisite: Three units in philosophy.  
European, Arabic, and Jewish philosophies from the fourth to the fifteenth centuries.

**PHIL 413. Renaissance and Early Modern Philosophy (3)**

Prerequisite: Three units in philosophy.  
European philosophy from the sixteenth to eighteenth centuries.

**PHIL 414. Nineteenth Century European Philosophy (3)**

Prerequisite: Three units in philosophy.  
European philosophy in the nineteenth century.

**PHIL 496. Experimental Topics (1-4)**

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

**PHIL 499. Special Study (1-3) I, II**

Prerequisites: Six upper division units in philosophy and prior arrangements with a supervising instructor.  
Individual study. Maximum credit six units.

**UPPER DIVISION COURSES  
(Also Acceptable for Advanced Degrees)**

**PHIL 506. Twentieth Century Continental Philosophy (3)**

Prerequisite: Six upper division units in philosophy.  
Major figures and movements in European philosophy from Husserl to the present.

**PHIL 507. Twentieth Century Anglo-American Philosophy (3)**

Prerequisite: Six upper division units in philosophy.  
Major movements, issues, or figures of twentieth century Anglo-American philosophy. Course may be repeated with new content. Maximum credit six units.

**PHIL 508. Existentialism (3)**

Prerequisite: Six units in philosophy.  
The philosophical aspects of existentialism. Major emphasis is on the diversity of thought within a common approach as this is shown in individual thinkers.

**PHIL 510. Philosophy of Law (3)**

Prerequisites: Three units from Philosophy 101, 102, or 103; and three units from philosophy or political science.  
Philosophical and ethical investigation into nature of law, rights, liberty, responsibility, and punishment.

**PHIL 512. Political Philosophy (3)**

Prerequisite: Philosophy 101, 102 or 103.  
Selected aspects of the political structures within which we live, such as law, power, sovereignty, justice, liberty, welfare.

**PHIL 521. Deductive Logic (3) II**

Prerequisite: Philosophy 110 or 120. Recommended: Philosophy 120.  
Principles of inference for symbolic deductive systems; connectives, quantifiers, relations and sets. Interpretations of deductive systems in mathematics, science and ordinary language. Not open to students with credit in Mathematics 523.

**PHIL 523. Theory of Knowledge (3)**

Prerequisite: Six units in philosophy.  
Philosophical analysis of knowledge, including conceptions of belief, justification, and truth.

**PHIL 525. Metaphysics (3)**

Prerequisite: Six units in philosophy.  
Prominent theories of reality, e.g., realism and nominalism, materialism and idealism, teleology and determinism.

**PHIL 528. Theory of Ethics (3)**

Prerequisite: Six units in philosophy.  
Advanced topics in ethical theory, including normative ethics and meta-ethics. May include historical or contemporary readings or both. Issues may include content of moral value, nature of moral judgment, and accounts of virtue and right action.

**PHIL 531. Philosophy of Language (3)**

Prerequisite: Six units in philosophy.  
An introduction to theories of meaning for natural languages and formal systems; concepts of truth, synonymy and analyticity; related epistemological and ontological problems.

**PHIL 532. Philosophy of History (3)**

Prerequisite: Six units in philosophy.  
Accounts of historical development, historical change, and nature of historical explanation.

**PHIL 535. Philosophy of Religion (3)**

Prerequisite: Six units in philosophy.  
Philosophical examination of issues raised by the religious impulse in man.

**PHIL 536. Philosophy of Mind (3)**

Prerequisite: Three upper division units in philosophy.  
Prominent theories and arguments regarding relation between mind and body. Varieties of dualism considered along with major materialist rivals.

**PHIL 537. Philosophy of Science (3)**

Prerequisite: Six units in philosophy.  
The basic concepts and methods underlying contemporary scientific thought. Contributions of the special sciences to a view of the universe as a whole.

**PHIL 541. History of Aesthetics (3)**

Prerequisite: Philosophy 101, 102 or 103.  
Major documents in the history of aesthetics.

**PHIL 542. Philosophy of Art (3)**

Prerequisite: Six units in philosophy.  
The nature of aesthetic experience. Principal contemporary theories of art in relation to actual artistic production and to the function of art in society.

**PHIL 543. Philosophy and Literary Theory (3)**

Prerequisites: Three upper division units in philosophy and three upper division units in literature.  
Relations between philosophy and literary discourse. Strategies of interpretation offered by major contemporary thinkers.

**PHIL 575. A Major Philosopher (3)**

Prerequisite: Six upper division units in philosophy.  
The writings of one major philosopher. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units applicable to the major. Maximum credit six units applicable to a master's degree.

**PHIL 596. Selected Topics (3)**

Prerequisite: Six upper division units in philosophy.  
A critical analysis of a major problem or movement in philosophy. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of nine units of 596 applicable to the major in philosophy. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

**PHIL 599. Special Study (1-3) I, II**

Prerequisite: Upper division or graduate standing and consent of instructor.  
Directed individual study in philosophy on a theme or topic chosen in consultation with the instructor. Maximum credit six units. Maximum combined credit six units of Philosophy 599 and 798 applicable to the M.A. degree in Philosophy.

**GRADUATE COURSES  
Refer to the *Graduate Bulletin*.**