

MUSIC DEPARTMENT

The Sarofim School of Fine Arts

Professor Kiyoshi Tamagawa, DMA, Chair
Professor Kenneth M. Sheppard, PhD
Associate Professor Bruce A. Cain, DM
Associate Professor Eileen Myer Russell, DM
Associate Professor Lois Ferrari, DMA
Associate Professor J. Michael Cooper, PhD
Assistant Professor Jason Hoogerhyde, DMA
Assistant Professor Eri Lee Lam, DMA
Visiting Assistant Professor David Asbury, DMA
Assistant Professor Steven Kostelnik, DMA (part-time)
Assistant Professor Carol Kreuscher, DMA (part-time)
Assistant Professor David Polley, DMA (part-time)
Assistant Professor Robert Gregg Warren, DMA (part-time)
Assistant Professor Oliver Worthington, DMA (part-time)
Assistant Professor Hai Zheng, MM (part-time)
Instructor Thaddeus Anderson, MM (part-time)
Instructor Anna Carney, MM (part-time)
Instructor Elizabeth Chappell, MME (part-time)
Instructor William Dick, MM (part-time)
Instructor Susan Douglas, MM (part-time)
Instructor Delaine Fedson, MM (part-time)
Instructor Michael Hengst, MM (part-time)
Instructor Adrienne Inglis, MM (part-time)
Instructor Stig Jensen, MM (part-time)
Instructor Vincent Lam, DMA (part-time)
Instructor Eric Miller, MM (part-time)
Instructor George Oldziej, MM (part-time)
Instructor Pamela G. Rossman, MM (part-time)
Instructor David Patrick Utterback, MM (part-time)

The Music Department in The Sarofim School of Fine Arts, Southwestern University is an accredited member of the National Association of Schools of Music (NASM). The Music Department strives to serve the global community and the world of music by offering a rigorous music program of the highest quality within the context of a liberal arts education.

GOALS OF THE MUSIC DEPARTMENT

- a.) To recruit and maintain a well-balanced body of committed music majors who will set standards for other students in performance, practice habits and scholarship;
- b.) To provide a Bachelor of Arts program with a balanced music curriculum for students with strong interests in music who also wish to pursue a broad liberal arts education;
- c.) To provide a Bachelor of Music program that prepares students for the strongest graduate programs; that develops performance skills through rigorous preparation of high-quality solo, chamber and large ensemble literature; and that prepares music education students to teach in elementary and secondary schools;
- d.) To enhance the general education program and student life by providing opportunities to all Southwestern University students to investigate music of various cultures through performance, as well as through theoretical and historical studies;
- e.) To maintain a faculty whose musical influence reaches beyond Southwestern University; and
- f.) With the understanding that our primary goal is to educate, not entertain, the Music Department is committed to providing service to the University through participation in ceremonial events, services of worship and events for the Office of Institutional Advancement, both on and off campus.

Scholarships

The Sarofim School of Fine Arts grants a number of scholarships to majors in music. Performance awards are also available to non-music majors who perform in one of the School's musical ensembles. These scholarships are awarded after an audition or portfolio review by the prospective students with members of the Music Department faculty, and can be scheduled through the secretary of the School of Fine Arts. For students who are Work Study eligible as part of their financial aid package, there are numerous jobs in all areas of the arts, including faculty assistants, music librarians, and box office staff. Students interested in these positions should inquire through the secretary of the School of Fine Arts.

Performing Groups

The following performing groups are open to all students by audition: the Southwestern University Wind Ensemble, the Southwestern University Jazz Band, the Southwestern University Orchestra, the Southwestern University Chorale, the Southwestern University Singers and the Southwestern University Opera Theatre.

Degrees

The Music Department offers two degrees, the Bachelor of Arts with a major in Music, and the Bachelor of Music with five possible emphases: Education, Literature, Performance, Sacred Music and Theory/Composition. A minor in music may also be obtained. With fewer specialized course requirements, the Bachelor of Arts with a major in Music offers greater flexibility for students who wish to pursue a major or minor in another area. Students who complete the requirements for the Bachelor of Music with an emphasis in Music Education will be qualified to teach music in public schools. The Bachelor of Music with a Performance emphasis is designed for those students who wish to become highly proficient in an instrument or in voice, for the purpose of becoming private teachers and/or professional performers. For those students who wish to pursue a degree in musicology at the graduate level, or for those who wish to gain a greater knowledge and appreciation of significant works of music in Western civilization, the Bachelor of Music with an emphasis in Music Literature is appropriate. The Sacred Music emphasis within the Bachelor of Music degree is designed for students who wish to pursue careers as church musicians, and it can also serve as a preparation for seminary study. The Bachelor of Music with an emphasis in Music Theory/Composition is designed for those students who plan to pursue graduate work in composition and/or music theory.

An audition/interview is required for all students desiring admission to a music degree program. Students most often do this prior to their enrollment at Southwestern. Those who decide to pursue a music major after they enroll at Southwestern must still audition for the Music Department. Specific repertoire requirements for auditions may be obtained from the office of the secretary of the School of Fine Arts or from the appropriate page on the School of Fine Arts Web site.

Students audition for, and are accepted into, a particular degree program/concentration within the major, with a specific principal performing area. Any music major who wishes to change his or her concentration or principal performing area must obtain the consent of the music faculty. In certain cases a re-audition may be required.

Additional requirements: In addition to satisfactory completion of required coursework, students are required to pass a number of examinations to continue in a music degree. These include the Sophomore Barrier Examination, the Keyboard Proficiency Examination, and juries. All music majors must also complete a Capstone requirement.

Sophomore Barrier Examination: All students pursuing a music major degree program will perform before the music faculty no later than at the conclusion of their second full year of study, or after a maximum of two semesters in residence for transfer students, after they are admitted by audition to the Music Department. The content of this performance varies by specialization; requirements are available from the Music Department. The quality of the student's performance at this time will be used by the faculty to assist in evaluating whether the student should be permitted to continue in his or her intended music degree program.

Keyboard Proficiency Examination: Requirements for passage vary according to the principal area of study and the chosen degree plan and concentration, and may be obtained from the Department Chair. Keyboard Proficiency Examinations are usually administered as part of a music performance

jury. Successful completion of the exam is recorded through the filing of a Special Report Card with the Registrar's Office.

Juries: The Music Department requires that all music majors or intended music majors perform a jury, or graded performance examination, on their principal instrument or voice at the end of each semester they are enrolled at Southwestern University. Exceptions to this rule may be made at the discretion of the individual applied instructor under circumstances as outlined in the Music Department faculty handbook. All other students taking applied music lessons should perform juries starting with their third semester of study in a particular applied area and continue every semester thereafter. This rule also applies to music majors in their secondary applied study area.

Capstone requirement: Activities or experiences that may fulfill this requirement vary with each music degree plan or concentration, and are noted at the end of each description. Successful completion of the capstone requirement is recorded through the filing of a Special Report Card with the Registrar's Office.

To summarize: 1. All students wishing to major in music must have an audition/interview. 2. All students in a music program must complete the Core Courses for the Major in Music (BA and BM) listed below. 3. All students majoring in music must complete the Additional Requirements for the Major in Music (BA and BM). 4. Students pursuing the Bachelor of Arts with a major in Music must also complete the Additional Course Requirements for the BA listed below. 5. Students pursuing the Bachelor of Music must also complete the requirements for the appropriate area of emphasis listed below. NOTE: All courses in the core requirements must be completed with a grade of C- or better in order to count toward the major and serve as prerequisites for subsequent courses in a sequence.

Core Courses for the Major in Music (BA and BM): 56 semester hours, including six semesters of Music Literature 80-100 (four semesters for transfer students); Music Literature 80-113, 123, 223, 233, 363; Music Theory 76-101, 111, 113, 121, 123, 131, 223, 233; Music Education 77-603 or 613; six hours from Ensemble 78-101/201, 121/221, 131/231, 171/271 (other courses may substitute with approval of the department chair) ; 12 hours from Applied Music 8x-00x/8x-20x (principal instrument); four hours from Applied Music 8x-00x/8x-20x (secondary instrument--fulfilled by piano for all students except those whose principal instrument is piano).

NOTE: Students whose principal instrument is not piano must enroll in applied piano lessons every semester until the Keyboard Proficiency Exam is passed.

NOTE: Music majors with harp as their principal instrument should take two semesters of the approved ensembles listed above under "Core Courses for the Major in Music." In addition, they should take two semesters of Chamber Music (Instrumental) ENS78-151/251, and two semesters of Harp Ensemble, which will be listed as a separate section of ENS78-151/251 in the semesters in which it is offered.

Additional Requirements for the Major in Music (BA and BM): successful completion of the Keyboard Proficiency Examination; successful completion of the Sophomore Barrier Examination; successful completion of a jury at the end of each semester of enrollment at Southwestern; successful completion of a Capstone experience. See above for specific information.

Additional course Requirements for the Bachelor of Arts, Major in Music: 18 semester hours, including 13 additional hours of Music above the introductory level from music theory, music literature, Diction in Vocal Music, Song Literature & Performance, additional conducting courses, Orchestration, independent study or other courses as approved by the academic adviser; six additional hours of Music. The Capstone experience may be fulfilled in one of the following three ways: a junior or senior recital, a public lecture, or another project approved in advance by the Music Department.

Additional course requirements for the Bachelor of Music, Area of Emphasis: Music Education: 36 semester hours, including Education 40-493, 553, 813; Education 41-803; Education 42-803; Education 43-403; Education 45-763; Music Theory 76-213, 343; Psychology 33-103, 223, 333. The Capstone experience is fulfilled by a junior or senior recital. Music Education majors must also choose from among three concentrations, the requirements for which are listed below. Computer Literacy and Public Speaking (or passage of competency exams) are required for certification, but not required for the degree.

NOTE: Music Education majors are exempted from the University foreign language requirement.

Instrumental Concentration (Winds): 16 semester hours, including Music Education 77-311, 321, 331, 341 (not required for percussion principals), 351, 423, 463, 473, 613 (a core course requirement), 622.

Instrumental Concentration (Strings): 13 semester hours, including Music Education 77-311, 321, 331, 341, 351, 423, 463, 613 (a core course requirement), 622.

Vocal Concentration: 14 semester hours, including Music Education 77-311, 321, 331, 341, 423, 443, 603 (a core course requirement), 612; Music Literature 80-701, 711.

Additional course requirements for the Bachelor of Music, Area of Emphasis: Music Education (non-certification program): 21 semester hours, including Education 40-553, Education 43-403; Psychology 33-103, 223; Music Education 77-943; Music Education 77-463 (for instrumental concentrations) or 77-443 (for vocal concentration); Music Theory 76-343.

***Note:** This program gives students the basic competencies for music teachers required by the National Association of Schools of Music, but does *not* lead to certification before graduation from Southwestern. Students who obtain employment in Texas public schools with a bachelor's degree will be required to pursue subsequent certification through various programs offered by educational institutions and certification centers throughout the state of Texas. **IMPORTANT:** Music Education majors in this non-certification program are **NOT** exempted from the foreign language requirement in the General Education program. Music Education students should consult with their advisers and determine early in their studies which program they wish to pursue. Students who change from the certification to the non-certification program will be required to fulfill the language requirement (fourth-semester proficiency). Two of the courses in Education and Psychology listed above should be used toward fulfilling the Social Science Division distribution requirements in the General Education program.

Instrumental Concentration (Winds and Strings): Six semester hours, including Music Education 77-311, 321, 331, 341*, 613, 622. *Percussion principals should substitute one hour of Music Education elective for this course.

Vocal Concentration: Six semester hours, including Music Education 77-522, 612, 603; Music Literature 80-701, 711.

Additional course requirements for the Bachelor of Music, Area of Emphasis: Music Literature: 25 semester hours, including Music Literature 80-403, 413, 423, 433, 953; three additional hours in Music Literature 80-xx3; two additional hours of Ensemble; five additional hours of Music courses. The Capstone experience is fulfilled in one of the following three ways: a junior or senior recital, a public lecture, or another project approved in advance by the Music Department. An oral examination final is also required.

Additional course requirements for the Bachelor of Music, Area of Emphasis: Performance: The requirements for the performance area of emphasis vary according to the student's principal performing medium. The requirements for the performance media follow.

Keyboard Performance Area: 24 semester hours, including: 12 additional hours of Applied Music 8x-00x/8x-20x in the principal instrument (piano or organ) (students who intend to pursue the performance concentration should register for two hours of principal applied study each of their first four semesters, then four hours each semester thereafter); two additional hours of Applied Music 8x-00x/8x-20x in the secondary instrument or instruments; two semesters of Ensemble 78-151; two additional hours of a required Ensemble; Music Education 77-532; Music Literature 80-602, 612. The Capstone experience is fulfilled by two recitals, one in each of the junior and senior years.

Instrumental Performance Area: 25 semester hours, including 12 additional hours of Applied Music 8x-00x/8x-20x in the principal instrument (students who intend to pursue the performance concentration should register for two hours of principal applied study each of their first four semesters, then four hours each semester thereafter); two additional hours of Applied Music 8A-00x/8A-20x in the secondary instrument (piano); two hours of Ensemble 78-151; two additional hours of a required Ensemble; Music Education 77-613 (core course requirement); four additional hours of Music courses. The Capstone experience is fulfilled by two recitals, in the junior and senior years.

Vocal Performance Area: 24 semester hours, including 12 additional hours of Applied Music 8B-

00x/8B-20x in the principal instrument (students who intend to pursue the performance concentration should register for two hours of principal applied study each of their first four semesters, then four hours each semester thereafter); two additional hours of Applied Music 8A-00x/8A-20x in the secondary instrument (piano); two hours of Ensemble 78-141; two additional hours of a required Ensemble; Music Education 77-603 (core course requirement); Music Education 77-522; Music Literature 80-701, 711, 712. The Capstone experience is fulfilled by two recitals, one in each of the junior and senior years. NOTE: Vocal Performance majors should take two semesters of French and two semesters of German. This will increase the number of foreign language hours in the General Education program to 16.

Additional requirements for the Bachelor of Music, Area of Emphasis: Sacred Music: 25 semester hours, including Music Education 77-603 (core course requirement), 612; two additional hours of Ensemble; Music Literature 80-503, 513, 523, 943; Music Theory 76-343; two Religion courses in addition to the Area One religion requirement. The Capstone experience is fulfilled in one of three following ways: a junior or senior recital, a public lecture, or another project approved in advance by the Music Department.

Additional course requirements for the Bachelor of Music, Area of Emphasis: Music Theory/Composition: 26 semester hours, including six hours from Music Theory 76-531, 532, 533; 76-343, 953; 12 additional hours of Music courses above the introductory level (additional hours of Composition strongly recommended); two additional semesters of a required Ensemble. The Capstone experience is fulfilled in one of the following three ways: a junior or senior recital, a public lecture, or another project approved in advance by the Music Department. An oral examination final is also required.

Minor in Music: 23 semester hours, including Music Literature 80-113; Music Theory 76-111, 113, 121, 123; 12 additional hours of Music courses above the introductory level.

OR

Minor in Music: 22 semester hours, including Music Literature 80-113, 123; Music Theory 76-111, 113; 12 additional hours of Music courses above the introductory level.

Applied Music—Private and Group Instruction (APM)

All applied music courses fulfill Area Two General Education Requirements for the Fine Arts Performance requirement. Additional studio/repertoire sessions may be added at the discretion of the instructor.

The numbering system in Applied Music is as follows: the first position following the APM is always “8;” the second position is a letter indicating the instrument being studied (see list below); the third position is a zero or a two, indicating lower or upper level, respectively; the fourth position is a zero; the fifth position is the number of credit hours being granted. Also, a two-digit suffix may be used to indicate multiple sections. For example, the course number APM 8A-001-01 indicates that the course is section one of a one-hour applied music piano course.

A—Piano	I—Saxophone	Q—Cello
B—Voice	J—French Horn	R—String Bass
C—Organ	K—Trumpet	U—Percussion (all)
D—Harpsichord	L—Trombone	V—Woodwind (all)
E—Flute	M—Euphonium	W—Brass (all)
F—Oboe	N—Tuba	X—Strings (all)
G—Clarinet	O—Violin	Y—Guitar
H—Bassoon	P—Viola	Z—Harp

Students may take applied music lessons that grant one, two or four hours of credit per semester. **However, only students admitted to the Bachelor of Music/Performance concentration program through passage of the Sophomore Barrier Examination may register for four hours of credit in one applied area in a given semester.** Students register for introductory applied music courses (000-

level numbers) the first two semesters that an instrument is studied, and for above introductory applied music courses (200-level numbers) in subsequent semesters of study in that instrument. Students may not register for multiple sections in the same applied study area in a given semester, or for class and individual instruction simultaneously in one applied area.

Note: APM 8B-00x Applied Voice - Prerequisite: Students seeking to enroll in voice lessons must first complete two semesters of Southwestern Singers or Chorale. With the approval of the voice faculty, students may take lessons concurrently with either Southwestern Singers or Chorale. Exceptions to this rule will be granted by the Department Chair only in compelling cases. Student requests for such exceptions must be made in writing before the student registers for voice lessons.

Applied Music Fees: An additional semester fee for instruction in Applied Music is assessed as follows: either \$170 for one credit hour (-001, -201), or \$340 for two or four credit hours (-002, -004, -202, -204).

Ensembles (ENS)

Music ensembles are open to all University students by audition. One hour of credit per semester is granted for each ensemble. All introductory level ensembles (100-level numbers) may be repeated for up to two hours of credit, and each ensemble above the introductory level (200-level numbers) may be repeated for up to six semester hours of credit. Students register for introductory level ensembles in the first two semesters and above introductory level ensembles in subsequent semesters. All ensembles may require additional meeting, rehearsal and performance times outside of scheduled class periods, as indicated by the instructor.

78-101, 201	SOUTHWESTERN UNIVERSITY WIND ENSEMBLE. (FAP)
78-111, 211	SOUTHWESTERN UNIVERSITY JAZZ BAND. (FAP)
78-121, 221	SOUTHWESTERN UNIVERSITY SINGERS. (FAP)
78-131, 231	SOUTHWESTERN UNIVERSITY CHORALE. (FAP)
78-141, 241	OPERA THEATRE. Includes additional lab as indicated by instructor. (FAP)
78-151, 251	CHAMBER MUSIC (INSTRUMENTAL). (FAP)
78-161, 261	CHAMBER MUSIC (VOICE). (FAP)
78-171, 271	SOUTHWESTERN UNIVERSITY ORCHESTRA. (FAP)

Music Education (MUE)

77-311	STRING METHODS. This course is designed to provide a survey of instruction for students studying string instruments. Ability to read music and previous experience with a musical instrument are recommended, as this is a performance-oriented course. (Fall) (FAP)
77-321	WOODWIND METHODS. This course is designed to provide a survey of instruction for students studying woodwind instruments. Ability to read music and previous experience with a musical instrument are recommended, as this is a performance-oriented course. (Fall) (FAP)
77-331	BRASS METHODS. This course is designed to provide a survey of instruction for students studying brass instruments. Ability to read music and previous experience with a musical instrument are recommended, as this is a performance-oriented course. (Spring) (FAP)
77-341	PERCUSSION METHODS. This course is designed to provide a survey of instruction for students studying instrumental music. Ability to read music and previous experience with a musical instrument are recommended, as this is a performance-oriented course. (Spring) (FAP)
77-351	VOCAL METHODS. For wind and string concentrations in the Music Education degree program, this course is designed to provide a survey for students studying secondary voice. (Spring, odd years) (FAP)
77-423	METHODS OF MUSIC IN THE ELEMENTARY SCHOOL. Methods of presenting music materials to children in grades K-6. Open only to students who have passed the Sophomore Barrier Examination and been admitted to the Music Education Major.

- 77-443** **CHORAL MUSIC EDUCATION.** A survey of the material available for junior and senior high school choirs. A study of the organization and problems of choral groups. Prerequisites: Music Theory 76-121, 123, and Music Literature 80-123; or permission of the instructor. (Spring, even years) **(FAL)**
- 77-463** **SEMINAR IN MUSIC EDUCATION.** This course will address issues specific to the development of secondary school string and wind ensembles. Open only to students who have passed the Sophomore Barrier Examination and been admitted to the Music Education Major. (Fall, even years)
- 77-473** **METHODS OF MARCHING BAND PERFORMANCE.** A study of the marching band as a medium of entertainment and of its value to the instrumental program in the public schools. The study includes fundamentals of marching, precision drill, designing of formations, and planning and execution of a half time show. Open only to students who have passed the Sophomore Barrier Examination and been admitted to the Music Education Major. (Fall)
- 77-522** **VOCAL PEDAGOGY.** A discussion of historical and current pedagogical techniques; the physiology of singing and voice types; training the young singer; vocal development through repertoire choice. Prerequisites: two semesters of applied voice study at the college level and concurrent enrollment in applied voice study. **(FAL)**
- 77-532** **PIANO PEDAGOGY.** Presentation of methods and materials used in individual and class instruction of piano students. Prerequisites: passage of the Sophomore Barrier Examination and admission to the Keyboard Performance Major; or four semesters or applied piano or organ study; or permission of instructor. **(FAL)**
- 77-603** **CHORAL CONDUCTING.** Introduction of baton techniques and rehearsal procedures. Prerequisites: Music Theory 76-121, 123 and Music Literature 80-123; or permission of instructor. (Fall, odd years) **(FAP)**
- 77-612** **ADVANCED CHORAL CONDUCTING.** A continuation of manual conducting techniques, score reading and performance preparation. Students will conduct a portion of a public concert. Prerequisite: Music Education 77-603 or 613. (Fall, even years) **(FAP)**
- 77-613** **INSTRUMENTAL CONDUCTING.** This course is an introduction to manual conducting techniques and rehearsal procedures with a survey of wind ensembles, band and choral literature. Prerequisites: Music Theory 76-121, 123, Music Literature 80-123 and a minimum of four semesters of applied music study in one area; or consent of instructor. **(FAP)**
- 77-622** **ADVANCED INSTRUMENTAL CONDUCTING.** This course is a continuation of manual techniques, score reading and performance preparation. Students will conduct a portion of a public concert. Prerequisite: Music Education 77-603 or 613. **(FAP)**
- 77-803, 806** **STUDENT TEACHING.** See Education 41-803, 806 and 42-803, 806.

- 77-001, 002, 003, 004** **SELECTED TOPICS.** May be repeated with change in content.
- 77-301, 302, 303, 304** **SELECTED TOPICS.** May be repeated with change in content.
- 77-901, 902, 903, 904** **TUTORIAL.**
- 77-941, 942, 943, 944** **ACADEMIC INTERNSHIP.** Must be taken Pass/D/F.
- 77-951, 952, 953, 954** **INDEPENDENT STUDY.** May be repeated with change in content.
- 77-983** **HONORS.** By invitation only.

Music Literature (MUL)

- 80-100** **RECITAL ATTENDANCE.** Students enrolled in this course are required to attend a set number of musical performances in the Music Department and elsewhere during the semester. No other work is required for this course, but it is graded

on a pass-fail basis and six semesters must be satisfactorily completed to fulfill requirements for the Bachelor of Music or Bachelor of Arts (Music) degrees. Four semesters are required for transfer students, and for students who begin at Southwestern and are admitted to the music major by audition later than the end of their second semester of residence.

- 80-103** **INTRODUCTION TO MUSIC.** A course for non-music majors designed to give students a general understanding of music and to increase the enjoyment of music through the development of listening skills. (FAL)
- 80-113** **MUSIC LITERATURE I.** A historical survey of the Classical and early Romantic periods. To be taken concurrently with 76-111 and 76-113. Prerequisites: Music Theory 76-101, 103, or permission of instructor. (Spring) (FAL)
- 80-123** **MUSIC LITERATURE II.** A historical survey of late 19th century and 20th century music. To be taken concurrently with 76-123 and 76-121. Prerequisite: Music Literature 80-113, or permission of instructor. (Fall) (FAL)
- 80-223** **MUSIC LITERATURE III.** A historical survey of Medieval and Renaissance music. To be taken concurrently with 76-131 and 76-223. Prerequisite: Music Literature 80-123, or permission of instructor. (Spring) (FAL)
- 80-233** **MUSIC LITERATURE IV.** A historical survey of Baroque music. To be taken concurrently with 76-233. Prerequisite: Music Literature 80-223, or permission of instructor. (Fall) (FAL)
- 80-363** **WORLD MUSIC.** An introduction to the music of non-Western cultures, including the study of the music of Africa, India, Bosnia, Japan, Latin America, Native America and Indonesia. Issues include the interaction of traditional musics with modern/Western musics and the use of music to create a national or ethnic identity. (FAL) (IP)
- 80-373** **MUSIC AND GENDER.** This course is designed to examine music as a gendered cultural discourse. Also Feminist Studies 04-373. (FAL)
- 80-383** **MUSIC IN THE UNITED STATES.** A course surveying the development of American music from the colonial period to the present. (Spring) (FAL)
- 80-403** **MEDIEVAL AND RENAISSANCE MUSIC.** A survey of Western European music to 1600. Prerequisite: Music Literature 80-223. (FAL)
- 80-413** **BAROQUE MUSIC.** A survey of Western European music from 1600 to 1750. Prerequisite: Music Literature 80-223. (FAL)
- 80-423** **CLASSICAL AND ROMANTIC MUSIC.** A survey of Western European music from 1750 to 1900. Prerequisite: Music Literature 80-223. (FAL)
- 80-433** **20TH-CENTURY MUSIC.** A survey of music from 1900 to the present day. Prerequisite: Music Literature 80-223. (FAL)
- 80-503** **HYMNOLOGY.** A survey of the great hymns of all ages with a consideration of their function in both Christian education and the church service. Prerequisite: Open only to students who have passed the Sophomore Barrier Examination and been admitted to the Sacred Music major.
- 80-513** **CHURCH MUSIC AND LITURGICS.** An examination of the concepts and practice of church music. A survey of historical patterns of worship and the role of music and related arts in the worship, Christian education, and mission of the church. Prerequisite: Open only to students who have passed the Sophomore Barrier Examination and been admitted to the Sacred Music major.
- 80-523** **CHURCH MUSIC LITERATURE AND MATERIALS.** A survey of choral literature and materials suitable for graded choirs. Attention is also given to vocal solo, keyboard and instrumental literature. Prerequisite: Open only to students who have passed the Sophomore Barrier Examination and been admitted to the Sacred Music major.
- 80-602** **PIANO SOLO REPERTOIRE, A.** This course is offered for applied majors as a survey of piano literature. (FAL)
- 80-612** **PIANO SOLO REPERTOIRE, B.** A continuation of 80-602. (FAL)
- 80-701** **DICTION IN VOCAL MUSIC I.** The principles of pronunciation and diction in

French, German and Italian for the beginning voice student, including an intensive application of these principles to vocal literature in these languages. Prerequisite: two semesters of applied voice study at the college level, or permission of instructor. (Fall, even years) (FAL)

- 80-711** **DICTION IN VOCAL MUSIC II.** A continuation of Diction in Vocal Music I. Prerequisite: Music Literature 80-701. (Spring, odd years) (FAL)
- 80-712** **SONG LITERATURE AND PERFORMANCE.** A survey of great solo art song literature and its performance practice. Prerequisite: two semesters of applied voice study at the college level, or Music Theory 76-113 and concurrent enrollment in applied voice. (FAL)
-

- 80-001, 002, 003, 004** **SELECTED TOPICS.** May be repeated with changed content.
- 80-301, 302, 303, 304** **SELECTED TOPICS IN MUSIC LITERATURE.** May be repeated with changed content.
- 80-901, 902, 903, 904** **TUTORIAL.**
- 80-941, 942, 943, 944** **ACADEMIC INTERNSHIP.** Must be taken Pass/D/F.
- 80-951, 952, 953, 954** **INDEPENDENT STUDY.** Readings and projects selected to broaden the advanced student's acquaintance with music through independent research. Requires permission of instructor. May be repeated with changed content.
- 80-983** **HONORS.** By invitation only.

Music Theory (MUT)

- 76-101** **FUNDAMENTALS OF SOLFEGE/EAR TRAINING.** The development of proficiency in aural skills through dictation and sight singing. Qualified students may place out of this class by examination, but must substitute another hour of coursework for degree requirements. To be taken concurrently with 76-103. (Fall) (FAL)
- 76-103** **FUNDAMENTALS OF MUSIC THEORY.** A survey of the rudiments of musical notation and analysis, beginning with basics of pitch and rhythm notation: the grand staff, clefs, major and minor scales and key signatures; identification and notation of the basic triad and seventh chord types in tonal harmony, chord inversions, Roman numeral analysis; harmonic progression; and introduction to part writing with triads. Some prior study on voice or an instrument and experience with reading basic musical notation is strongly recommended. This course is a prerequisite to 76-113. Qualified students may place out of this class by examination. To be taken concurrently with 76-101. (Fall) (FAL)
- 76-111** **SOLFEGE/EAR TRAINING I.** Continuation of 76-101. To be taken concurrently with 76-113 and 80-113. Prerequisite: Music Theory 76-101 or passage of a qualifying diagnostic examination. (Spring) (FAL)
- 76-113** **MUSIC THEORY I.** Review and continuation of concepts introduced in Fundamentals of Music Theory. A working knowledge of pitch and rhythm notation and mastery of basic musical concepts such as scales, key signatures, and triad and seventh chord types is assumed. Further work with four-part harmony and harmonic progression. New concepts: cadences, musical forms, non-chord tones, diatonic sevenths, secondary chords, and modulation. To be taken concurrently with Music Literature 80-113 (majors) and 76-111. Prerequisite: Music Theory 76-103 or passage of a qualifying diagnostic examination. (Spring) (FAL)
- 76-121** **SOLFEGE/EAR TRAINING II.** Continuation of 76-111. To be taken concurrently with 76-123 and Music Literature 80-123. Prerequisite: Music Theory 76-111. (Fall) (FAL)
- 76-123** **MUSIC THEORY II.** A consideration of functionally tonal chromatic harmony and modulation through analysis and compositional exercises. Larger formal

- designs (sonata, rondo, concerto, song forms) will be explored in late 18th and 19th century music literature. To be taken concurrently with Music Literature 80-123 (majors) and 76-121. Prerequisite: Music Theory 76-113. (Fall) **(FAL)**
- 76-131 SOLFEGE/EAR TRAINING III.** Continuation of 76-121. To be taken concurrently with 76-223 and 80-223. Prerequisite: Music Theory 76-121. (Spring) **(FAL)**
- 76-213 MUSIC TECHNOLOGY.** Students develop digital audio, animation scores and MIDI sequences and learn how to publish their work on the Internet. Includes additional lab as indicated by instructor. **(FAL)**
- 76-223 MUSIC THEORY III.** A study of the contrapuntal styles of the Renaissance and Baroque eras through analysis and compositional exercises. To be taken concurrently with Music Literature 80-223 and 76-131. Prerequisite: Music Theory 76-123. (Spring) **(FAL)**
- 76-233 MUSIC THEORY IV.** Review of chromatic harmony; 20th-century compositional styles. To be taken concurrently with Music Literature 80-233. Prerequisite: Music Theory 76-223. (Fall) **(FAL)**
- 76-343 ORCHESTRATION.** A study of orchestration; introduction to orchestral instruments; analysis of selected orchestral works and original compositions. Prerequisite: Music Theory 76-123. **(FAL)**
- 76-531, 532, 533 COMPOSITION.** May be repeated for credit. Prerequisite: Music Theory 76-101 and 76-103, or consent of instructor. **(FAL)**
-

- 76-001, 002, 003, 004 SELECTED TOPICS.** May be repeated with changed content.
- 76-301, 302, 303, 304 SELECTED TOPICS IN MUSIC THEORY.** May be repeated with changed content.
- 76-901, 902, 903, 904 TUTORIAL.**
- 76-941, 942, 943, 944 ACADEMIC INTERNSHIP.** Must be taken Pass/D/F.
- 76-951, 952, 953, 954 INDEPENDENT STUDY.** Readings and projects selected to broaden the advanced student's acquaintance with music through independent research. Requires permission of instructor. May be repeated with changed content.
- 76-983 HONORS.** By invitation only.

PHYSICAL SCIENCE *Interdisciplinary Program*

William O'Brien, PhD, Program Chair and Associate Professor of Physics

Physical Science Major (Dual Degree, Pre-Engineering Program)

For students interested in engineering, a dual degree program is possible which consists of three years of course work at Southwestern University followed by approximately two years at an engineering school accredited by the Accreditation Board for Engineering and Technology (ABET). The student will complete the requirements for the Bachelor of Arts, with the exception of the major requirement, at Southwestern. In addition, the student will complete his or her training in the basic sciences and in mathematics at Southwestern. Southwestern University will award the Bachelor of Arts degree after the completion of all of the requirements for the engineering degree.

The dual degree program is designed to place the technical training of the engineer within the broader perspective of the liberal arts tradition. In this age, the engineer cannot always confine himself or herself to the technical aspects of engineering projects. The modern engineer must be aware of the social responsibilities of the profession and must explain the possibilities and the risks

of new technologies to fellow citizens. These considerations have been given added emphasis by recent decisions of many engineering schools to add more humanities courses to their programs and are especially relevant to those who, in the course of a technical career, move into decision-making positions. Completion of the program at Southwestern is the first stage of the dual degree program. The student then applies for admission to an ABET accredited engineering school which usually requires a GPA of 3.0. In the case of Washington University in St. Louis, Mo., students with the above-noted GPA and a recommendation from the liaison office (Southwestern's Physics Department) are normally admitted. In addition, Washington University offers a Dual Degree Engineering Affiliation Scholarship to be awarded by the Southwestern University liaison office. To be eligible for the scholarship, which covers half of the tuition cost at Washington University, a student must have a cumulative grade point average of 3.5 and meet the dual degree admission requirements. Students in the dual degree program at Washington University constitute about 20 percent of the undergraduate engineering students and receive their degrees upon satisfactory completion of a two-year program in St. Louis. Also, specific credit transfers have been arranged with Arizona State University in Tempe, Ariz., and with Texas A&M University in College Station, Texas. It should be noted that the average time to complete an engineering degree at public institutions for their students who enter as freshmen is now five years. As both the engineering schools and Southwestern make curricular adjustments frequently, students interested in the dual degree program should consult regularly with the Pre-Engineering adviser about progress or changes in affiliation agreements.

Students must satisfy the basic requirements of the Bachelor of Arts degree, including all Area One and Two requirements, but excluding the 47 semester hours in the major discipline, for a total of 92 semester hours at Southwestern.

The courses in the Physical Science major will provide a foundation upon which further work in engineering will be built. The Area One and Area Two courses also will provide some transfer credit to various schools. A detailed outline showing a suggested staging of the various courses at Southwestern is available from the Physics Department.

The Southwestern degree is a BA with a major in physical science. The requirements for the major are to be considered satisfied by the science and mathematics courses outlined above together with course work completed at the engineering school for completion of the engineering degree at the second institution. Successful completion of the engineering degree is a requirement for the BA at Southwestern University. While the degree cannot be conferred until all requirements are completed at both institutions, students who can provide evidence that they will complete their degree requirements by the end of the second institution's spring semester may petition to the Provost by the published deadlines to participate in May commencement activities at Southwestern University.

Major in Physical Science: 47 semester hours, including Chemistry 51-153/151, 163/161; Computer Science 54-143 or 183; Mathematics 52-154, 253, 353, 673, 753; Physics 53-154, 164, 214, 334; Chemistry 51-714 or Physics 53-204.

PHYSICS DEPARTMENT

Division of Natural Sciences

Associate Professor Steven Alexander, PhD, Chair
Associate Professor William P. O'Brien, PhD
Assistant Professor Mark Bottorff, PhD
Assistant Professor James Friedrichsen, PhD (part-time)
Instructor Peter Wehner, MS (part-time)

The Physics Department serves students with many different goals: 1) those planning to follow a career related to physics; 2) those planning a career in engineering; 3) those planning a career in a science field

other than physics; 4) those planning to teach physics; and 5) those who are not majoring in science but would like to know something about the methods and results of science.

The Physics Department offers majors and minors for the Bachelor of Science and the Bachelor of Arts degrees. Students wishing to study Engineering are also supported by the department. For more information, please consult the Physical Science Major (Dual Degree, Pre-Engineering Program) in this catalog.

The Physics capstone (53-951, 952 or 953) is normally an introduction to research and provides students with an opportunity to examine in depth any topic, experimental or theoretical, within the field of physics. It involves individual study under the guidance of the instructor.

Major in Physics (BA or BS): 34-36 semester hours, including Physics 53-154, 164, 204, 214, 324, 334, 403, 413, 423; one from 53-951, 952, 953 (Capstone).

Required supporting courses in the major: 13 semester hours, including Mathematics 52-154, 253, 353, 753. Sufficient advanced mathematics for a minor is recommended.

Minor in Physics: 20 semester hours, including Physics 53-154, 164, 204, 214, 334.

See the Education Department for information regarding teacher certification in physics.

Physics (PHY)

- 53-033** **INTRODUCTION TO EARTH SCIENCE (3-0).** This course examines the complex physical relations between land, sea and atmosphere. It also explores how some actions of our modern civilization disrupt the environment. Topics include geologic hazards, land management, water resources, hazardous waste disposal, energy resources, mineral resources and conservation of resources. Also Environmental Studies 49-033. (NS)
- 53-043** **EXPLORING THE UNIVERSE—THE SOLAR SYSTEM (3-0).** This course is an introduction to the science of the solar system. Topics include: the Sun, the planets and their moons, meteors, asteroids and comets. The current theory of the origin and evolution of the solar system and the observations that led to the development of this theory are discussed. The discovery of planetary systems beyond our solar system and the possibility of life on other planets are also investigated. (NS)
- 53-053** **EXPLORING THE UNIVERSE—STARS, GALAXIES AND COSMOLOGY (2-2).** This course is an introduction to the science of the stars, the structures they form and the large-scale structure and evolution of the universe. Topics include current theories about: the properties of stars, the Sun as a star, stellar evolution (including the formation of black holes), multiple stars, star clusters, galaxies, galaxy clusters, and the Big Bang. The observations that led to the development of each of these theories are discussed. The associated laboratory provides observational and experimental experience in the foundations of astronomy. (NSL)
- 53-063** **MUSICAL ACOUSTICS.** Physics of sound with application to musical instruments and music. Designed for students not majoring in science, but open to any student with knowledge of elementary algebra. (NSL)
- 53-104** **CONCEPTUAL PHYSICS (3-3).** A descriptive survey of topics in physics: mechanics, properties of liquids and gases, heat, electricity, sound and light. This course may not be counted as part of a physics major. (NSL)
- 53-114, 124** **INTRODUCTION TO PHYSICS I & II (3-3).** An algebra-based introduction to mechanics, electromagnetism, optics. Prerequisite: Concurrent registration or credit in Mathematics 52-123. (Physics 53-114 is prerequisite for Physics 53-124.) These courses may not be counted as part of a physics major. (NSL)
- 53-154, 164** **FUNDAMENTALS OF PHYSICS I & II (3-3).** A calculus-based treatment of mechanics, wave motion, electromagnetism, optics. Prerequisites: Concurrent registration or credit in Mathematics 52-154. (Physics 53-154 is prerequisite for Physics 53-164.) (NSL)
- 53-204** **ELECTRONICS (3-3).** Introduction to digital and analog circuits, with applications

- to modern instrumentation. Prerequisites: Mathematics 52-154, 253 and Physics 53-154, 164. Mathematics 52-353 is a pre- or co-requisite for this course. **(NSL)**
- 53-214** **ELEMENTARY MODERN PHYSICS (3-3)**. An introduction to the physics of the 20th century that surveys relativity theory, wave-particle duality, atomic structure, wave mechanics, nuclear theory and particle physics. Prerequisites: Mathematics 52-154, 253 and Physics 53-154, 164. Mathematics 53-353 is a pre- or co-requisite for this course. **(NSL)**
- 53-324** **ELECTROMAGNETISM I (3-3)**. Development of Maxwell's equations with applications to electrostatics and magnetostatics. Prerequisites: Mathematics 52-154, 253 and Physics 53-154, 164. Mathematics 53-353 is a pre- or co-requisite for this course. **(NSL)**
- 53-334** **CLASSICAL MECHANICS I (3-3)**. An advanced treatment of Newtonian mechanics with applications to kinematics, forced oscillations, central force motion and systems of particles. Prerequisites: Mathematics 52-353 and Physics 53-154, 164. Mathematics 53-753 is a pre- or co-requisite for this course. **(NSL)**
- 53-403** **ELECTROMAGNETISM II (3-0)**. Applications of Maxwell's equations to propagation of plane and guided waves in various media. Prerequisite: Physics 53-324. **(NS)**
- 53-413** **CLASSICAL MECHANICS II (3-0)**. Introduction to the Lagrangian and Hamiltonian formulations of mechanics with application to non-inertial reference frames, rigid bodies and oscillating systems. Prerequisite: Physics 53-334. **(NS)**
- 53-423** **QUANTUM PHYSICS (3-0)**. A detailed introduction to quantum mechanics and its applications to atoms and molecules. Prerequisites: Physics 53-214, 334. **(NS)**

- 53-001, 002, 003, 004** **SELECTED TOPICS**. May be repeated with change in topic.
- 53-301, 302, 303, 304** **SELECTED TOPICS**. May be repeated with change in topic.
- 53-901, 902, 903, 904** **TUTORIAL**.
- 53-941, 942, 943, 944** **ACADEMIC INTERNSHIP**. Must be taken Pass/D/F.
- 53-951, 952, 953, 954** **INDEPENDENT STUDY AND RESEARCH**. May be repeated with change in content.
- 53-983** **HONORS**. By invitation only.

POLITICAL SCIENCE DEPARTMENT

Division of Social Sciences

Professor Eric A. Selbin, PhD, Chair
 Professor Timothy J. O'Neill, PhD
 Professor Robert S. Snyder, PhD
 Assistant Professor Alisa Gaunder, PhD
 Visiting Brown Junior Professor Jennifer Suchland, PhD
 Visiting Instructor Matt Weidenfeld, ABD
 Visiting Professor Gilbert St. Clair, PhD

Political Science is deeply grounded in the liberal arts tradition, drawing upon anthropology, economics, history, philosophy, psychology, statistics and sociology to study politics and endeavor to illuminate the various political, social and cultural arrangements of people's lives. The goal is to interpret the past(s), explain the present(s) and even dare to predict the future(s). To this end, political scientists

study power, authority, conflict, economic relationships, culture, laws, policy, values, ethics, justice, equality, rights, legitimacy and representation, to name only a few. Using these and other concepts, they analyze the political impacts of social issues such as war, peace, poverty, crime, education, the environment, race, gender and globalization. While most people associate political science with the study of governments and other political actors, as a field of study it relies on various levels of analysis and focuses on a wide array of topics. These range from the history of political philosophy and the character of contemporary political concepts to the problems of development, from the role of congressional committees, the presidency, or the judiciary in the United States to the role of various groups in and out of the mainstream political process in the United States, from the intricacies of government in states at various stages of development to the interaction of peoples and states in the international arena. Political Science is a broad and diverse field and the department's commitment is to help students develop as active participants in the world and to prepare themselves should they choose to go on to graduate or professional programs, into politics, government, non-governmental organizations, journalism, public relations, banking, teaching or myriad other areas in which those who are conscious of the major problems of human society are interested in bringing the best constructive critical thinking to bear.

Course offerings in Political Science are divided into four broad categories: (1) American politics (32-113, 313, 323, 333, 343, 514, 524, 534, 713); (2) political theory (32-233, 363, 373, 564, 574, 733); (3) comparative politics (32-143, 413, 423, 433, 443, 614, 624, 634, 753, 764); and (4) international relations (32-283, 463, 473, 483, 493, 664, 773). The array of courses students are expected to take are described below, but the program of each student majoring in Political Science is worked out in consultation with members of the department to ensure proper balance of courses in each category.

Students may major or minor in Political Science. A major consists of 33 semester hours of work in the department with at least 27 semester hours at the advanced level. A minor consists of 19 semester hours with 13 semester hours at the advanced level. It is also possible to complete a 51-hour program in International Studies that pairs a major in Political Science with an additional "concentration" of four courses on either East Asia, Europe or Latin America plus two courses at the 300 level or above in an appropriate language and a semester or longer study abroad experience. See the International Studies Program for further details.

American Politics (32-113) is a prerequisite for all advanced courses in the American category. Comparative Politics (32-143) is a prerequisite for all advanced courses in comparative and international politics. Either Political Science 32-113 or 32-143 is a prerequisite for all political theory courses. Graduating seniors must take Senior Seminar (32-964) during the fall or spring semester of the senior year. This will satisfy the capstone requirement for the Political Science major. Students may offer a completed Honors project or Independent Study in lieu of the Senior Seminar with prior departmental approval.

Independent Study (32-951, 952, 953, and 954) and Texas Politics Internships (32-343) are open to students with six semester hours of credit in Political Science. Internships normally are open to juniors and seniors.

Credit may be obtained for American government (equivalent to Political Science 32-113) by scoring 55 or better on the CLEP subject examination in the area, provided prior approval has been secured from the Department Chair.

Major in Political Science: 33 semester hours, including Political Science 32-113, 143, 964 (Capstone); three 200-400 level courses; two 500-600 level courses; six additional hours of Political Science above the introductory level.

Additional requirements for the Political Science major: One course above the introductory level in American Politics (32-313, 323, 333, 343, 514, 524, 534), one course above the introductory level in comparative politics (32-413, 423, 433, 443, 614, 624, 634, 764), one course above the introductory level in political theory (32-233, 363, 373, 564, 574), and two courses above the introductory level in international relations (32-283, 463, 473, 483, 493, 664) must be included in the major.

Minor in Political Science: 19 semester hours, including Political Science 32-113, 143; one 200-400 level course; one 500-600 level course; six additional hours of Political Science above the introductory level.

Additional requirements for the Political Science minor: One course above the introductory level in American Politics (32-313, 323, 333, 343, 514, 524, 534), and at least one course above the introductory level in international relations (32-283, 463, 473, 483, 493, 664) must be included in the minor.

See the Education Department for information regarding teacher certification in political science.

Political Science (PSC)

- 32-113** **AMERICAN POLITICS.** An introduction to political analysis through a study of the origin and development of the American political system, federalism with special reference to the Constitution of the State of Texas, citizenship and civil rights, and political parties and interest groups. (ScS)
- 32-143** **COMPARATIVE POLITICS.** An introductory survey of major political systems, representing both Western and non-Western countries. No single political system will be studied in depth. This course provides the tools for such study in the future. (ScS)
- 32-233** **BASIC CONCEPTS IN POLITICAL THEORY.** This course is designed to introduce the student to several primary concepts in the study of political theory through the works of a few major political theorists. Through selected authors from both ancient and modern times, we will contemplate different understandings of concepts such as justice, political obligations, freedom and authority. This course is recommended as an introductory course in the study of political theory. Prerequisite: Political Science 32-113 or 143.
- 32-283** **INTERNATIONAL POLITICS.** An introductory study of the theory and practice of international politics. The course examines both the origins and the consequences of the political organization of the world. Prerequisite: Political Science 32-143.
- 32-313** **RELIGION AND POLITICS IN AMERICA.** An exploration of the tension between religious and political impulses and values in America. The approach is both theological and political, analyzing the changes and continuity in religious and political beliefs and structures. Topics include how religion encourages political action (disputes over abolitionism, prohibition, abortion and nuclear arms), how politics affects religion (religious pluralism, the development of black churches, Mormons and Jehovah's Witnesses), and how the American nation is affected by both. Prerequisite: Political Science 32-113.
- 32-323** **LAW AND POLITICS.** A discussion of the nature of law as a political process, investigating such topics as the functions of the police, the role and powers of the legal profession, and the contributions of judges, juries and prisons to the attainment of justice and order. Prerequisite: Political Science 32-113.
- 32-333** **PUBLIC POLICY.** An introduction to the discipline of policy analysis. Explores who is responsible for making public policies, how choices are made, what kind of tools are at the disposal of policy-makers and how their effectiveness can be enhanced. Also, the course explores theories about how bureaucracies operate and how they ought to operate. Theories and concepts are illustrated by investigating current policy efforts in such areas as environmental protection, the Internet or the development and justification of nuclear deterrence. Prerequisite: Political Science 32-113. Also Environmental Studies 49-593.
- 32-343** **TEXAS POLITICS INTERNSHIPS.** An opportunity to compare political theory and practical politics in a work environment, under supervision of department faculty. In alternate spring semesters the internships will be at the state capitol and in Williamson County. Prerequisite: Political Science 32-113.
- 32-363** **AMERICAN POLITICAL THOUGHT.** This course introduces students to some of the primary themes of the American political tradition through the writings of statesmen, scholars, activists and essayists from the American Founding through

the present. The course will consider how Americans have thought about religious, racial, ethnic and gender differences as they related to politics and how Americans have conceptualized a common identity throughout our history. Basic Concepts in Political Theory is recommended, but not required, as a prerequisite. Prerequisite: Political Science 32-113 or 143.

- 32-373** **POLITICAL IDEOLOGIES.** An introduction to the systems of ideas, ideals and beliefs through which people view and act in the world. Particular emphasis is placed on the argumentative structure and the political and psychological functions of ideologies; on their historical origin(s) and development; and on their respective conceptions of freedom and democracy. Prerequisite: Political Science 32-113 or 143.
- 32-413** **EUROPEAN POLITICS.** This course provides an in-depth analysis of the political cultures, structures, processes and policies of selected systems in Europe. In addition, the nature and function of the European Union is considered. Prerequisite: Political Science 32-143.
- 32-423** **MIDDLE EAST POLITICS.** A survey of the comparative and international politics of the Middle East, focusing on major Arab states, Israel and Iran. Prerequisite: Political Science 32-143.
- 32-433** **CONTEMPORARY JAPANESE POLITICS.** This course explores the historical and cultural context of contemporary Japanese politics, the political institutions of “the 1955 system,” the policy making process in post-war Japan, and the effects of the 1994 political reforms. Prerequisite: Political Science 32-143. **(IP)**
- 32-443** **WOMEN AND POLITICS.** A study of women and politics situated within a comparative perspective. Explores the connection between feminist theory and practice and examines (and illuminates) the structural and attitudinal conditions that influence public policy and that limit or facilitate change in the life options of women. Prerequisite: Political Science 32-113 or 143. Also Feminist Studies 04-403.
- 32-463** **U.S. FOREIGN POLICY.** A survey of American foreign policy with particular focus on the Cold War period and the post-Cold War period. Societal, ideological and governmental sources of American foreign policy are examined. Prerequisite: Political Science 32-143.
- 32-473** **FILM, LITERATURE AND THE COLD WAR.** This course examines how selected Western writers and filmmakers portrayed the Cold War. Prerequisite: Political Science 32-143.
- 32-483** **INTERNATIONAL ORGANIZATION.** An examination of the ways by which states and non-state actors seek to handle increasing interdependence in the world. Particular attention is given to the United Nations, the European Union, and multinational corporations. Prerequisite: Political Science 32-143.
- 32-493** **INTERNATIONAL POLITICAL ECONOMY.** A seminar that examines how changes in the international political economy have affected international politics and international relations theory. Prerequisite: Political Science 32-143 and 283, or permission of instructor.
- 32-514** **ISSUES IN CONSTITUTIONAL LAW.** An intensive analysis of the constitutional values, policy issues and philosophical principles in judicial debates about the meaning of the American Constitution. Possible topics include the powers of the national government, judicial review, civil rights and liberties, and due process in the criminal justice system. Prerequisite: Political Science 32-113.
- 32-524** **LEGISLATIVE POLITICS.** An exploration of the roles played by interest groups, electoral campaigns, money and personalities in legislative decision-making. Policy areas treated are civil rights legislation, the politics of budgets and taxes and congressional involvement in foreign policy. Prerequisite: Political Science 32-113.
- 32-534** **THE AMERICAN PRESIDENCY.** This course explores the development of the presidential office, the institution of the presidency and the elements of

presidential leadership through an examination of American political history. The course proceeds on three different planes: that of primary sources from particular presidencies, political histories and secondary scholarly works that focus on particular problems in the study of the presidency. Together, these three lines of intellectual inquiry should provide students with a strong foundation in modern presidential history and the analytical tools necessary to engage in thoughtful study of the American presidency. Prerequisite: Political Science 32-113.

- 32-564 NATURE'S NATION: CONCEPTIONS OF NATURE AND WILDERNESS IN AMERICAN POLITICAL THOUGHT.** The aim of this seminar is to examine some of the political and philosophical understandings of nature and wilderness in American political thought, and to reflect on how these conceptions have influenced and shaped our thinking on other matters such as national identity, gender relations and public policy. The course begins with the early republic and concludes with a few contemporary readings. Prerequisite: Political Science 32-113 or 143. Also Environmental Studies 49-604.
- 32-574 CONTEMPORARY DEMOCRATIC THEORY.** This seminar surveys contemporary theories of democracy, beginning with core texts from the liberal and republican traditions and continuing into contemporary debates. Course focus varies semester to semester including themes of justice, inclusion and pluralism. The course includes a significant writing component. Prerequisite: Political Science 32-113 or 143, and 233.
- 32-614 LATIN AMERICAN POLITICS.** This introduction to contemporary Latin American and Caribbean politics also allows students with previous knowledge about the region to further their interests. The course is built around some of the key issues which confront Latin America and the Caribbean. Substantial writing required. Prerequisite: Political Science 32-143 or Sociology 34-113. Also Sociology 34-614.
- 32-624 THE CHINESE CULTURAL REVOLUTION.** This seminar explores the causes of the Cultural Revolution, the role of Mao and Mao Zedong thought, the experiences of various groups in society during the Cultural Revolution, and the effects of the Cultural Revolution on contemporary China. Prerequisite: Political Science 32-143.
- 32-634 CONTENTIOUS POLITICS.** This seminar is designed to explore both the concept as well as various manifestations of "contentious" politics, primarily focused on collective actions such as social movements, cycles of protest, rebellion and revolution. There is a substantial research and writing component. Prerequisite: Political Science 32-143.
- 32-664 INTERNATIONAL PEACE AND VIOLENCE.** An exploration of issues concerning the characteristics, causes and justifications of occurrences of international peace and violence. The focus is primarily on post-nuclear era state terrorism (internal and external), low intensity conflict, internal conflict resistance, rebellion and revolution, terrorism and peace. Substantial writing required. Prerequisite: Political Science 32-143.
- 32-713 TOPICS IN AMERICAN POLITICS.** An in-depth investigation into selected topics of contemporary interest in American politics. May be repeated when topics vary. Prerequisite: Political Science 32-113.
- 32-733 TOPICS IN POLITICAL THEORY.** An in-depth investigation into selected topics in political theory. May be repeated when topics vary. Prerequisite: Political Science 32-113 or 143.
- 32-753 TOPICS IN COMPARATIVE POLITICS.** An in-depth investigation into selected topics in comparative politics. May be repeated when topics vary. Prerequisite: Political Science 32-143.
- 32-764 ADVANCED RESEARCH SEMINAR IN LATIN AMERICAN POLITICS.** Run on the model of a graduate seminar, this course examines and considers various sociopolitical aspects extant in Latin America and the Caribbean with a particular

focus on collective action and behavior. The course focus varies; previous topics have included resistance, rebellion, and revolution, social movements, and the institutionalization and consolidation of democracy. There is a substantial research and writing component to this course which may include working with primary documents and in-depth interviewing. Prerequisites: Political Science 32-143 and 614. Also Sociology 34-764 and Anthropology 35-764.

- 32-773** **TOPICS IN INTERNATIONAL POLITICS.** An in-depth investigation into selected topics in international relations. May be repeated when topics vary. Prerequisite: Political Science 32-143.
- 32-794** **RESEARCH THEORY AND METHODOLOGY.** Theory and design of research problems, studies and experiments in political science, and evaluation of research methodology using examples from current literature. Both qualitative and quantitative approaches are considered. Prerequisite: Political Science 32-113 or 143.
- 32-964** **SENIOR SEMINAR.** This course fulfills the capstone requirement for the major. Requires permission of instructor.
-

- 32-001, 002, 003, 004** **SELECTED TOPICS.** May be repeated with change in topic.
- 32-301, 302, 303, 304** **SELECTED TOPICS.** May be repeated with change in topic.
- 32-901, 902, 903, 904** **TUTORIAL.**
- 32-941, 942, 943, 944** **ACADEMIC INTERNSHIP.** May be arranged through the department. These internships require a minimum of 120 semester hours of work supervised by a member of the departmental faculty and a substantial written component. Must be taken Pass/D/F.
- 32-951, 952, 953, 954** **INDEPENDENT STUDY.** Must be arranged with departmental faculty and requires permission of instructor. May be repeated with changed content.
- 32-984** **HONORS.** By invitation only.

PSYCHOLOGY DEPARTMENT

Division of Social Sciences

Professor Jacqueline E. Muir-Broadbuss, PhD, Chair

Professor Traci Giuliano, PhD

Professor Jesse E. Purdy, PhD

Associate Professor Bryan D. Neighbors, PhD

Assistant Professor Paula Desmond, PhD

Assistant Professor Fay Guarraci, PhD

Visiting Assistant Professor Stephen Fiala, PhD

Professor George Hampton, PhD (part-time)

Professor Steven Schapiro, PhD (part-time)

Psychology is the scientific study of behavior and the mind. In this view, behavior refers to the observable actions of an individual person or animal and mind refers to an individual's sensations, perceptions, memories, thoughts, motivations and emotions. The Psychology program emphasizes the position that psychology is first a science and then a profession and provides students with a broad background in psychology. The Psychology program prepares the student for graduate school in all areas of psychology, including biopsychology, child psychology, clinical psychology, cognitive psychology, comparative psychology, counseling psychology, developmental psychology, industrial/organizational psychology, neuroscience, personality, social psychology and school psychology. Students not wishing to pursue graduate study in psychology will find the major to be useful preparation

for other professional programs, such as law, medicine, and social work, and for careers in human services and related fields. The Psychology program is housed in the F.W. Olin Building, which has excellent facilities for conducting research with humans and animals, including state-of-the-art aquatic animal and neuroscience research laboratories and an excellent classroom laboratory.

Students may choose to complete a Bachelor of Arts (BA) or a Bachelor of Science (BS) degree with a major in Psychology by completing the requirements specified in the catalog under “University Degrees.”

Major in Psychology (BA or BS): 35 semester hours, including Psychology 33-103, 204, 214, 433; four from 33-223, 233, 243, 423, 443, 453, 463; either six semester hours of research from 33-823, 833, 843, 853, 863, 873 or six semester hours of internship from 33-943, 946 (Capstone); three additional semester hours in Psychology.

Required supporting course in the major: Mathematics 52-113.

Minor in Psychology: 18 semester hours, including Psychology 33-103; 15 additional hours in Psychology, at least 12 hours of which must be above the introductory level.

Psychology (PSY)

- 33-103** **PRINCIPLES OF PSYCHOLOGY.** Students will be introduced to the methods and findings of both classic and current psychological research, as well as to the practical applications of this work. Emphasis is placed on acquiring a foundation of knowledge and critical skills that are necessary to evaluate psychological research. (Each semester) (ScS)
- 33-111** **INTRODUCTION TO ANIMAL BEHAVIOR.** This course will introduce students to the major in Animal Behavior through reading, lecture and discussion of a wide range of topics related to the scientific study of animal behavior. Faculty members in the Animal Behavior program will present their various programs of research and students will read primary literature related to these presentations. Discussion will focus on these areas of research as well as the field of animal behavior. Must be taken P/D/F.
- 33-204** **RESEARCH METHODS I.** This course is the first part of a two-semester sequence designed to teach the basic concepts of research methods used in the study of psychology. Its goals are to help students think critically in approaching problems, to provide hands-on experience with a variety of methodological techniques, to train students to analyze and interpret the results of a research study, and to enable students to communicate research findings to an audience of psychologists. Emphasis is placed on non-experimental research designs and the statistical analyses of those designs. Discussed are the methods of science used in observational and field research, archival research, and survey/correlational research. In addition, students are introduced to writing and presenting results according to the guidelines of the American Psychological Association. Prerequisites: Psychology 33-103 and Mathematics 52-113. (Fall)
- 33-214** **RESEARCH METHODS II.** This course is the second part of a two-semester sequence designed to teach the basic concepts of research methods used in the study of psychology. Its goals are to help students think critically in approaching problems, to provide hands-on experience with a variety of methodological techniques, to train students to analyze and interpret the results of a research study, and to enable students to communicate research findings to an audience of psychologists. Emphasis is placed on experimental research designs and statistical analyses of those designs. Discussed are the procedures used in between, within, and mixed designs with single and multiple factors. Prerequisite: Psychology 33-204. Students will take the same instructor for both Research Methods I and II. (Spring)
- 33-223** **DEVELOPMENTAL PSYCHOLOGY.** Developmental Psychology is a theory and research-based overview of the many ways in which nature and nurture combine to produce developmental outcomes in the biological, cognitive, intellectual,

- personality and social domains, with a focus on the childhood and adolescent years. Prerequisite: Psychology 33-103. (Each semester)
- 33-233 PERSONALITY THEORY AND RESEARCH.** A survey course that provides an overview of the major personality theories and the methods used in personality research. Included are type theories, trait theories and dynamic theories. The emphasis is on examination and evaluation of the experimental evidence pertinent to each theory. Prerequisite: Psychology 33-103. (Spring)
- 33-243 PSYCHOLOGICAL TESTING.** A study of the statistical principles which underlie test construction and psychological evaluation and the most commonly utilized psychological tests (e.g., intelligence, personality). Each student has an opportunity to work with a group to develop and evaluate a psychological test, and to prepare and present a report on the process. Prerequisites: Psychology 33-103. Mathematics 52-113 recommended. (Spring)
- 33-253 ANIMAL BEHAVIOR.** See Biology 50-213. (NSL)
- 33-333 EDUCATIONAL PSYCHOLOGY.** An examination of psychology's contributions to educational practice. Topics include intellectual and academic assessment principles and instruments, the application of theories of learning and cognitive development to instruction, theories of problem formation and resolution, and the recognition and handling of selected psychological challenges. Prerequisites: Psychology 33-223 and admission to Teacher Certification Program, or permission of instructor. Also Education 40-333. (Fall)
- 33-363 SENSATION AND PERCEPTION.** This course explores Von Uexkull's concept of the Umwelt, or self-world, a domain defined not only by an animal's perceptual capacities but also by its action systems. The course will examine different self-worlds from the perspectives of different species and consider how organism-environment interactions produce their sensory and perceptual worlds. Topics of interest include the biosonar capabilities of bats and dolphins, magnetoreceptors in birds, fish, and reptiles, electroreception in fish, and chemical communication through pheromones. The course is taught from an interdisciplinary perspective and students from diverse majors are encouraged to enroll. Prerequisite: Psychology 33-103. (Spring)
- 33-373 FORENSIC PSYCHOLOGY.** This course focuses on the application of psychological knowledge in the civil and criminal justice systems. As a seminar course with emphasis on critical discussion and student presentations, it will include an exploration of the role that psychologists play in the courtroom (e.g. case preparation, jury selection) and in criminal investigation (e.g. profiling, interrogations). Emphasis will also be placed on the role of psychologists in evaluating various "states of mind" or "behavioral dispositions" which bear on judicial process, such as competency (to stand trial), insanity (defense), dangerousness (involuntary commitment), and criminally relevant forms of psychopathology (e.g. psychopathy, sexual deviance). Prerequisite: Psychology 33-103 or permission of instructor. (May term)
- 33-383 HUMAN SEXUALITY.** This course is an introduction to the psychology of human sexuality. It covers a broad range of topics, including male and female physiology, sexual orientation, sexual expression and variation, sexual difficulties, birth control, reproduction, prostitution, pornography and many others. The primary goal of this course is for students to develop a greater understanding of their own sexuality and the sexuality of others, as well as to become more knowledgeable about the topic of sex. Decisions and choices related to human sexuality affect people throughout their entire lives. The idea of this course is that the more knowledgeable and comfortable people are with these issues, the better able they will be to make informed decisions that reflect their own moral values, whatever those may be. (May term) (ScS)
- 33-423 ABNORMAL PSYCHOLOGY.** An overview of the field of clinical psychology that involves the scientific study of mental illness (psychopathology). The focus is on an empirically grounded examination of the symptomatic presentation,

classification and cause of a broad range of psychological disorders. Methods used in the field to assess, treat and conduct research on the disorders will also be studied. Prerequisite: Psychology 33-214. Psychology 33-233 recommended. (Fall)

33-433

BEHAVIORAL NEUROSCIENCE. An introduction to the neurosciences with an emphasis on the techniques used to study the neurobiological basis of behavior. The anatomy and function of the nervous system is a primary focus of the course and specific topics include how the nervous system mediates perception, emotions, thoughts, learning and memory processes. Prerequisite: Psychology 33-204. (Spring)

33-443

COGNITIVE PSYCHOLOGY. Cognitive Psychology is the scientific study of the mechanisms and processes involved in the acquisition and use of knowledge. The structure and function of working memory and long term memory are central to cognition, and hence are the primary focuses of the course. Other topics include a brief history of cognitive psychology, major theories of cognition and cognitive development and the effects of culture on cognition. Prerequisite: Psychology 33-204. (Spring)

33-453

PSYCHOLOGY OF LEARNING. Study of the traditional areas of learning psychology, including current theoretical and research considerations of classical conditioning, instrumental conditioning, aversive control of behavior and discrimination learning. Prerequisite: Psychology 33-214. (Fall)

33-463

SOCIAL PSYCHOLOGY. An introduction to the field of social psychology, which is the scientific study of how the thoughts, feelings and actions of a person are influenced by other people and by social situations. Topics include the self, attitudes and attitude change, group behavior, prejudice and discrimination, prosocial behavior, conformity, relationships and emotion, among others. The focus is on historical development of these topics as well as on current research and theory in these areas. Prerequisite: Psychology 33-204. (Spring)

33-543

HEALTH PSYCHOLOGY. This course will introduce students to the field of health psychology, which is the application of psychological principles in understanding how the mind, body, and behavior interact in health and illness. Emphasis will be placed on the biopsychosocial model which considers the role of biological, psychological and social factors in health and illness. Topics of interest include health promotion and primary prevention of illness, stress and coping, pain management, and a variety of behavior-related medical conditions (e.g. cardiovascular disease, cancer, AIDS, eating disorders). Prerequisite: Psychology 33-204.

33-553

HUMAN FACTORS. This course is designed to provide students with an overview of the field of human factors, which is the scientific study of perceptual and cognitive capabilities and limitations and the role these play in the design of consumer products, workplaces, and other systems. The primary goal of this course is to train students in the application of psychological principles to “real world” problems. Emphasis will be placed on familiarizing students with methodologies which are utilized in human factors research. Topics of interest include product usability, automation, human error, and human-computer interaction. Prerequisite: Psychology 33-204.

33-823

RESEARCH IN APPLIED PSYCHOLOGY. Laboratory or field-based research course designed to provide hands-on research experience related to questions concerning applied psychology. Students work directly with a given faculty member within the department. Students read and synthesize the literature, design a study, collect and analyze data and report the results. A written product is required of all students. Prerequisites: Psychology 33-214 and permission of instructor. May be repeated with different experience. (Fall)

33-833

RESEARCH IN BEHAVIORAL NEUROSCIENCE. Laboratory or field-based research course designed to provide hands-on research experience related to questions concerning neuroscience. Students work directly with a given faculty

member within the department. Students read and synthesize the literature, design a study, collect and analyze data and report the results. A written product is required of all students. Prerequisites: Psychology 33-433 and permission of instructor. May be repeated with different experience. (Spring)

33-843 RESEARCH IN CLINICAL PSYCHOLOGY. Laboratory or field-based research course designed to provide hands-on research experience related to questions concerning clinical psychology. Students work directly with a given faculty member within the department. Students read and synthesize the literature, design a study, collect and analyze data, and report the results. A written product is required of all students. Prerequisites: Psychology 33-423 and permission of instructor. May be repeated with different experience. (Fall)

33-853 RESEARCH IN COMPARATIVE PSYCHOLOGY. Laboratory or field-based research course designed to provide hands-on research experience related to questions concerning animal learning and animal behavior. Students work directly with a given faculty member within the department. Students read and synthesize the literature, design a study, collect and analyze data, and report the results. A written product is required of all students. Prerequisites: Psychology 33-433 or 453, and permission of instructor. May be repeated with different experience. (Fall, Spring)

33-863 RESEARCH IN DEVELOPMENTAL/COGNITIVE PSYCHOLOGY. Laboratory or field-based research course designed to provide hands-on research experience related to questions concerning developmental and cognitive psychology. Students work directly with a given faculty member within the department. Students read and synthesize the literature, design a study, collect and analyze data, and report the results. A written product is required of all students. Prerequisites: Psychology 33-214 and 33-223 or 443, and permission of instructor. May be repeated with different experience. (Fall)

33-873 RESEARCH IN SOCIAL PSYCHOLOGY. Laboratory or field based research course designed to provide hands-on research experience related to questions concerning social psychology. Students work directly with a given faculty member within the department. Students read and synthesize the literature, design a study, collect and analyze data, and report the results. A written product is required of all students. Prerequisites: Psychology 33-463 and permission of instructor. May be repeated with different experience. (Fall)

33-001, 002, 003, 004

33-301, 302, 303, 304

33-901, 902, 903, 904

33-941, 942, 943, 944, 946

SELECTED TOPICS. May be repeated with change in topic.

SELECTED TOPICS. May be repeated with change in topic.

TUTORIAL.

ACADEMIC INTERNSHIP. Field placement in an approved setting. Students are expected to complete 120 hours (33-943) or 240 hours (33-946) of supervised experience. All internships require certain prerequisites and permission of instructor. May be repeated with different experience. (Spring or Summer)

33-951, 952, 953, 954

33-983

INDEPENDENT STUDY. May be repeated with change in content.

HONORS. By invitation only.