SPHS 2900. Special Problems. 1-3 hours.

SPHS 3020. Phonetics. 3 hours. The international phonetic alphabet, basic articulatory acoustic phonetic principles, pronunciation rules, segemental and suprasegemental features, and in-class practice of phonetic transcription.

SPHS 3050. Introduction to Disorders of Articulation and Phonology. 3 hours. Introduction to the nature, causes and characteristics of articulation and phonological disorders; principles of evaluation and remediation. Prerequisite(s): SPHS 3020 or equivalent.

SPHS 3070. Introduction to Audiology. 3 hours. Overview of the field with emphasis on disorders of the auditory system and assessment of hearing sensitivity.

SPHS 3080. Nature of Communication Disorders. 3 hours. Nature and characteristics of speech-language and hearing impairments, including disorders prevalent in multicultural populations. Emphasis on recognition of symptoms, referral sources and suggested treatment programs.

SPHS 4010. Normal Speech and Language Development. 3 hours. Normal language development from birth through adolescence, with consideration of current theories of acquisition, pertinent research and issues related to cultural diversity.

SPHS 4060. Clinical Practicum in Speech-Language Pathology and Audiology. 3 hours. (1;0;2–3) Experience in Speech and Hearing Center. Prerequisite(s): 9 hours of major courses to include SPHS 3020. Students must have and maintain a GPA of no less than 3.0 for all departmental courses 3000-level and above, a degree audit on file in SPHS and/or departmental approval. Pass/no pass only.

SPHS 4065. Clinical Practicum in Speech-Language Pathology/Audiology, Level II. 3 hours. (1;0;2–3) Students observe/participate in actual clinical service delivery to clients of the UNT Speech and Hearing Center, working with speech-language and audiology clinical faculty and graduate students. Prerequisite(s): SPHS 4060.

SPHS 4090. Basic Rehabilitative Audiology. 3 hours. Methods of improving communication skills of the hearing impaired through speech and language training, amplification, speech reading, auditory training and counseling. Prerequisite(s): SPHS 3070 or equivalent.

SPHS 4120. Neurological Bases of Speech and Hearing. 3 hours. Structure and function of the human nervous system as related to speech and language learning and usage. Emphasis on the reception and integration of sensation and the production of verbal and non-verbal responses. Prerequisite(s): SPHS 4130 or consent of instructor.

SPHS 4130. Anatomical Bases of Speech and Hearing. 3 hours. Anatomy and physiology of the articulatory, phonatory, respiratory and auditory systems involved in speech production and perception.

SPHS 4140. Introduction to Language Disorders. 3 hours. Nature, causes and characteristics of language disorders in children and adults. Principles of evaluation and remediation of language problems. Prerequisite(s): SPHS 4010 or equivalent.

SPHS 4150. Speech and Hearing Sciences. 3 hours. Fundamental processes underlying the production and perception of speech, and the physical and psychological aspects of sound and their measurement. Prerequisite(s): SPHS 3020 or consent of instructor.

SPHS 4210. Clinical Methods in Speech-Language Pathology and Audiology. 3 hours. Introduction to the processes involved in the assessment, diagnosis, and remediation of speech, language, and hearing disorders. Factors affecting these processes, such as service delivery, work settings, cultural and linguistic diversity, and public policy are addressed.

SPHS 4900. Special Problems. 1–3 hours. Problem must be approved by department director.

SPHS 4951. Honors College Capstone Thesis. 3 hours. Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis. Prerequisite(s): completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College. May be substituted for HNRS 4000.

Studio Art

Studio, ASTU

ASTU 1417. Beginning Watercolor Painting for Non-Art Majors. 3 hours. (0;6) Experimentation with watercolor painting principles, techniques, brush work and materials. Emphasis on problem solving, basic skills, composition and color.

ASTU 2050 (ARTS 2346). Beginning Ceramics. 3 hours. (2;4) Introduction to hand-building and wheel-throwing techniques; decorating and glazing wares. Prerequisite(s): ART 1440 and ART 1450.

ASTU 2120. Introduction to Fibers. 3 hours. (2;4) Introduction to 2-dimensional and 3-dimensional techniques in fibers using mixed media, pigments and dye. Prerequisite(s): ART 1440 and ART 1450.

ASTU 2130. Fibers: Weaving I. 3 hours. (2;4) Making warps and threading looms; weaving on simple hand looms, analyzing patterns and design in color and texture. Prerequisite(s): ART 1440 and ART 1450.

ASTU 2150 (ARTS 2341). Metalsmithing and Jewelry I. 3 hours. (2;4) Design, construction and forming using basic techniques. Prerequisite(s): ART 1440 and ART 1450.

ASTU 2200 (ARTS 2323). Beginning Figure Drawing. 3 hours. (2;4) Visual observation of the figure and interpretation through various graphic techniques. Prerequisite(s): ART 1500 and ART 1510.

ASTU 2210. Painting I. 3 hours. (2;4) Introduction to canvas painting methods, techniques and concepts. Prerequisite(s): ART 1440, ART 1450, ART 1500 and ART 1510.

ASTU 2215. Painting II. 3 hours. (2;4) Further development of painting methods, techniques and concepts on canvas and other surfaces. Prerequisite(s): ASTU 2210.

ASTU 2250. Photography I. 3 hours. (2;4) Beginning course providing a combination of lecture and studio with an introduction to photographic materials, techniques and digital cameras. Prerequisite(s): ART 1440 and ART 1450; or consent of instructor. Concurrent enrollment in lecture and laboratory required.

- ASTU 2255. Photography II. 3 hours. (2;4) Intermediate course providing instruction in use of digital and film cameras, digital and traditional photographic printing, and digital image management. Prerequisite(s): ASTU 2250.
- ASTU 2300. Introduction to Printmaking Techniques. 3 hours. (0;6) Survey of traditional and non-traditional printmaking techniques, introducing students to a variety of basic printmaking processes including the fundamentals of paper, inks, presses, printing and editioning. Prerequisite(s): ART 1440, ART 1450, ART 1500 and ART 1510. For visual arts studies majors only.
- ASTU 2350. Sculpture I. 3 hours. (2;4) Creation of original forms in clay, wood or metal; mold making, casting, construction and direct carving. Prerequisite(s): ART 1450 and ASTU 2200.
- ASTU 2417 (ARTS 2366). Beginning Watercolor Painting. 3 hours. (2;4) Watercolor painting on wet and dry papers. Prerequisite(s): ART 1440, ART 1450, ART 1500 and ART 1510.
- ASTU 2450. Introduction to New Media Studio. 3 hours. (2;4) This skills-based course prepares students for image-making within the studio-based practice of creating artworks that integrate static digital imaging techniques with film, web, screen and works on paper, as well as other traditional studio practices. Studio research and iterative techniques for the purpose of concept development are introduced. Prerequisite(s): ART 1200, ART 1440, ART 1450, ART 1500 and ART 1510.
- ASTU 2460. New Media Studio I. 3 hours. (2;4) This studio-based course introduces students to a number of perspectives available to them as artists through the use of 2D time-based media processes with video effects, frame-based animation, and sound output to film, computer applications and the Internet. Prerequisite(s): ART 1200, ART 1440, ART 1450, ART 1500, ART 1510, and ASTU 2450; or consent of instructor.
- **ASTU 3050. Intermediate Ceramics.** 3 hours. (2;4) Development of wheel-throwing and hand-building techniques. Clay body formulation, glaze mixing, firing theory and practice. Prerequisite(s): ASTU 2050.
- **ASTU 3120. Fibers: Screen Printing.** 3 hours. (2;4) Introduction to a wide range of screen printing processes and techniques. Prerequisite(s): ART 1440 and ART 1450.
- ASTU 3130. Fibers: Weaving II. 3 hours. (2;4) Introduction to special weaving applications, such as two harness tapestry and rug weaving techniques, ikat dye techniques, as well as a variety of off-loom techniques. Prerequisite(s): ASTU 2130.
- ASTU 3135. Fibers: Alternative Processes. 3 hours. (2;4) An introduction to the study of art processes that create both 2-dimensional and 3-dimensional "off-loom" structures. Prerequisite(s): ART 1200, ART 1440, ART 1450, ART 1500, ART 1510.
- **ASTU 3150. Metalsmithing and Jewelry II.** 3 hours. (2;4) Design in metal using intermediate processes. Prerequisite(s): ASTU 2150.
- ASTU 3160. Metalsmithing and Jewelry III. 3 hours. (2;4) Design in metal using advanced processes. Prerequisite(s): ASTU 2150, ASTU 3150. Mid-point review administered during the term/semester.
- **ASTU 3200. Intermediate Figure Drawing.** 3 hours. (2;4) Human figure in compositions using drawing and painting media. Prerequisite(s): ASTU 2200.

- ASTU 3210. Intermediate Painting. 3 hours. (2;4) Studio work in various media combined with a general review of contemporary painting theories. Prerequisite(s): ART 2350 and ART 2360; ASTU 2200, ASTU 2215 and ASTU 2417. May be repeated for credit. For drawing and painting majors, 3 hours required from ASTU 3210, ASTU 3220, ASTU 3230 or ASTU 3417, with mid-point portfolio review administered at the end of second course.
- ASTU 3215. Intermediate Drawing Studio. 3 hours. (0;6) Explores themes and issues of drawing using a variety of approaches and media. Classroom assignments and self-directed projects may deal with observation, invention, narrative, and/or conceptual approaches. This class will not replace ASTU 3200 but can be used as an elective. Prerequisite(s): ASTU 2200.
- ASTU 3220. Figure Painting I. 3 hours. (0;6) Painting the human figure from life. Topics to be explored include the craft of painting, strategies of representation, color and light, psychological factors, and narrative. Prerequisite(s): ASTU 2200, ASTU 2215, ASTU 2417 and ASTU 3200.
- **ASTU 3230. Hybrid Forms.** 3 hours. (2;4) Introduction to the theory and practice of non-traditional art media. Lecture and studio with emphasis in studio. Prerequisite(s): junior standing in drawing and painting, sculpture, photography or printmaking.
- ASTU 3250. Photography III. 3 hours. (2;4) Advanced techniques in exposure and printing. Introduction to large format digital printing and large format cameras. Prerequisite(s): ASTU 2250, ASTU 2255; selection via the entry review process.
- ASTU 3305. Artist's Bookmaking. 3 hours. (2;4) Application of the concepts and techniques of bookmaking to create sequential works of art. Emphasis on developing ideas, materials, presentation and basic bookbinding techniques in one-of-a-kind and multiple books.

 Prerequisite(s): ART 1440, ART 1450, ART 1500 and ART 1510
- ASTU 3310. Printmaking: Etching. 3 hours. (2;4) Introduction to concepts and techniques of intaglio printmaking, including various grounds, aquatint, line etching and stage biting. Black and white and color. Prerequisite(s): ART 1440, ART 1450, ART 1500 and ART 1510.
- ASTU 3315. Printmaking: Monotype Printmaking. 3 hours. (2;4) Introduction to concepts and techniques of monotype printmaking, additive and subtractive painting, and trace techniques with a focus on multiple-color printing. Prerequisite(s): ART 1440, ART 1450, ART 1500 and ART 1510.
- ASTU 3320. Printmaking: Screen Printing. 3 hours. (2;4) Introduction to concepts and techniques of waterbased screen printing, including hand-drawn stencils and photographic processes. Prerequisite(s): ART 1440, ART 1450, ART 1500 and ART 1510.
- ASTU 3330. Printmaking: Lithography. 3 hours. (2;4) Introduction to concepts and techniques of lithography, including crayon, washes and photo techniques. Black and white and color. Prerequisite(s): ART 1440, ART 1450, ART 1500 and ART 1510.
- ASTU 3340. Printmaking: Relief Printmaking. 3 hours. (2;4) Introduction to concepts and techniques of relief printmaking. Carving and printing wood, linoleum, and/or polystyrene relief blocks. Black and white and multiple-color printing. Prerequisite(s): ART 1440, ART 1450, ART 1500 and ART 1510.

ASTU 3350. Sculpture II. 3 hours. (2;4) All aspects of 3-dimensional form. Prerequisite(s): ART 1450; ASTU 2200 and ASTU 2350.

ASTU 3417. Intermediate Watercolor. 3 hours. (2;4) Conceptual development through transparent paint; work in non-transparent aqua-based media on paper surfaces; historical survey of watercolor. Prerequisite(s): ASTU 2417. May be repeated for credit.

ASTU 3427. Experimental Topics in Watercolor: Studio I. 3 hours. (2;4) Investigation of alternative formats, subject matter and materials on 2D surfaces using transparent and opaque watercolor. Prerequisite(s): ASTU 2417.

ASTU 3437. Experimental Topics in Watercolor: Studio II. 3 hours. (2;4) Investigation of alternative formats, subject matter and materials on 2D surfaces and 3D forms, using transparent and opaque watercolor. Prerequisite(s): ASTU 3427.

ASTU 3450. New Media Studio II. 3 hours. (2;4) Intermediate course. Works in tandem with New Media Studio I (ASTU 2460) by introducing new ways for students to generate interactive art experiences through a variety of time-based and interactive digital media processes. Introduces techniques for interactive animation, interactive film, software art and NetArt (art that incorporates the Internet), with a focus on 2D or 3D presentation space. Prerequisite(s): ART 1200, ART 1440, ART 1450, ART 1500, ART 1510, and ASTU 2450; or consent of instructor.

ASTU 3460. New Media Studio III. 3 hours. (2;4) Studio-based course. Introduces 3D modeling, texturing, key-frame animation, physics, collision detection, and sound for the purpose of creating time-based site-specific experiences. Students explore the relationship of time to space when generating content for their artworks. Techniques for exporting models and animations for 2D and 3D time-based and interactive software environments are also discussed. Prerequisite(s): ART 1200, ART 1440, ART 1450, ART 1500, ART 1510; ASTU 2450, ASTU 2460, ASTU 3450; or consent of instructor.

ASTU 4000. Topics in Studio Practice. 3 hours. (0;6) Variable topics course designed to explore concepts and processes in art making that go beyond the curricular parameters of traditional studio disciplines. Prerequisite(s): junior standing or consent of instructor. May be repeated for credit as topics vary.

ASTU 4010. Professional Practices for the Studio Artist. 3 hours. Study of theoretical and practical aspects of succeeding as a practicing artist outside the academy. Survey of the protocols and common practices expected of the artist as a productive member of the business community wherein fine art is the commodity.

ASTU 4050. Ceramics Studio. 3 hours. (2;4) Developing additional competence in special areas. Prerequisite(s): ASTU 4050, advanced standing and consent of instructor. May be repeated for credit.

ASTU 4120. Fibers: Fabric Design Studio. 3 hours. (2;4) Developing additional competence in special areas. Prerequisite(s): ASTU 2120, advanced standing and consent of instructor. May be repeated for credit.

ASTU 4130. Fibers: Weaving Studio. 3 hours. (2;4) Developing additional competence in special areas. Prerequisite(s): ASTU 3130, advanced standing and consent of instructor. May be repeated for credit.

ASTU 4150. Metalsmithing and Jewelry Studio. 3 hours. (2;4) Developing additional competence in special areas. Prerequisite(s): ASTU 3160, advanced standing and consent of instructor. May be repeated for credit.

ASTU 4210. Advanced Painting Studio. 3 hours. (2;4) Developing additional competence in special areas. Prerequisite(s): advanced standing and consent of instructor; ASTU 3200; AEAH 4812 or AEAH 4813; 3 hours from ASTU 3210; and 3 hours from ART 3210, ART 3220, ART 3230 or ART 3417. Students must have passed midpoint review in painting. May be repeated for credit.

ASTU 4215. Drawing Studio. 3 hours. (2;4) Developing additional competence in special areas. Prerequisite(s): advanced standing and consent of instructor; ASTU 3200, AEAH 4812 or AEAH 4813; 3 hours from ASTU 3210; and 3 hours from ASTU 3210, ASTU 3220, ASTU 3230 or ASTU 3417. Students must have passed mid-point review in painting. May be repeated for credit.

ASTU 4220. Figure Painting Studio. 3 hours. (2;4) Developing additional competence in special areas. Prerequisite(s): ASTU 3200; AEAH 4372 or AEAH 4374; 3 hours from ASTU 3210; and 3 hours from ASTU 3210, ASTU 3220, ASTU 3230 or ASTU 3417. Students must have passed mid-point review in painting. May be repeated for credit.

ASTU 4230. Advanced Hybrid Forms. 3 hours. (2;4) Developing additional competence in special areas. Prerequisite(s): advanced standing in sculpture, photography, painting or printmaking; must have passed mid-point review. May be repeated for credit.

ASTU 4250. Photography Studio. 3 hours. (2;4) Developing additional competence in special areas. Prerequisite(s): ASTU 3250, advanced standing and consent of instructor. Must have passed the mid-point review. May be repeated for credit.

ASTU 4260. Photography and the Web. 3 hours. (2;4) Exploration of current conceptual shifts in photography in the context of web technology. Introduces a diverse set of tools to facilitate engagement with web technology. Focus on empowering artists to use web technology in their creative and professional practice. Prerequisite(s): ASTU 2250, ASTU 2255 and ASTU 3250; selection into the photography program through the mid-point review process.

ASTU 4270. Alternate Photographic Processes. 3 hours. (2;4) Alternate processes in photography with emphasis on hand applied, non-silver photographic emulsions. Prerequisite(s): ASTU 2250, ASTU 2255 and ASTU 3250; selection into the photography program via the mid-point review. Not offered every term/semester.

ASTU 4280. Photography: Advanced Lighting Techniques. 3 hours. (2;4) Photographic lighting procedures and studio techniques. Completion of a portfolio of images is required. Prerequisite(s): ASTU 2250, ASTU 2255 and passing mid-point portfolio review.

ASTU 4290. Topics in Photography. 3 hours. (2;4) Advanced and comprehensive exploration of selected topics and projects in photography. Prerequisite(s): ASTU 2250, ASTU 2255 and ASTU 3250; selection into the photography program through the mid-point review process. May be repeated for credit as topics vary.

ASTU 4300. Printmaking Studio. 3 hours. (2;4) Developing additional competence in special areas. Prerequisite(s): advanced standing and consent of instructor; specific studio courses may require additional prerequisites. May be repeated for credit.

ASTU 4305. Advanced Artist's Bookmaking. 3 hours. (2;4) Advanced application of the concepts and techniques of bookmaking to create sequential works of art. Emphasis on developing ideas, materials, presentation and basic bookbinding techniques in one-of-a-kind and multiple books. Prerequisite(s): ASTU 3305.

ASTU 4310. Printmaking: Advanced Etching. 3 hours. (2;4) Exploration of concepts and techniques of intaglio printmaking, including classic and experimental techniques. Prerequisite(s): ASTU 3310; selection into the printmaking program through the mid-point review process. May be repeated for credit.

ASTU 4315. Printmaking: Advanced Monotype. 3 hours. (2;4) Advanced exploration of concepts and techniques of monotype printmaking. Classical and experimental techniques are used with special emphasis on seriality and the multiple. Prerequisite(s): ASTU 3315.

ASTU 4320. Printmaking: Advanced Screen Printing. 3 hours. (2;4) Exploration of concepts and techniques of water-based screen printing, including hand-drawn, photographic and experimental techniques. Prerequisite(s): ASTU 3320; selection into the printmaking program through the mid-point review process.

ASTU 4330. Printmaking: Advanced Lithography. 3 hours. (2;4) Exploration of concepts and techniques of lithography, including classical and experimental techniques. Prerequisite(s): ASTU 3330; selection into the printmaking program through the mid-point review process.

ASTU 4340. Printmaking: Advanced Relief Printmaking. 3 hours. (2;4) Exploration of concepts and techniques of relief printmaking. Classical and experimental techniques are used with special emphasis on seriality and the multiple. Prerequisite(s): ASTU 3340; selection into the printmaking program through the mid-point review process.

ASTU 4350. Sculpture Studio. 3 hours. (2;4) Developing additional competence in special areas. Prerequisite(s): ASTU 3350, advanced standing and consent of instructor. May be repeated for credit.

ASTU 4417. Watercolor Studio. 3 hours. (2;4) Developing additional competence in special areas. Prerequisite(s): ASTU 3200; AEAH 4812 or AEAH 4813; 3 hours from ASTU 3210 and 3 hours from ASTU 3210, ASTU 3220, ASTU 3230 or ASTU 3417. Students must have passed midpoint review in painting.

ASTU 4450. New Media Studio IV. 3 hours. (2;4) Students in this repeatable advanced-level class are expected to create a body of work consistent with a senior-level studio practice. Covers advanced time-based and interactive media processes for interactive 2D and 3D experiences, film, software art, and NetArt, with a focus on the creation of intelligent physical interfaces, controls and kinetics. Prerequisite(s): ART 1200, ART 1440, ART 1450, ART 1510; ASTU 2450, ASTU 2460, ASTU 3450; or consent of instructor. May be repeated for credit.

ASTU 4460. Advanced New Media Studio. 3 hours. (0;6) Students in this repeatable advanced-level course are expected to create a body of work consistent with a senior-level studio practice. Students have more autonomy in the

development of their projects in the path of their selected genre or interest. Project-specific techniques continue to be offered in the areas of 2D/3D animation, film, interactive art, NetArt and kinetic installation. Prerequisite(s): ART 1200, ART 1440, ART 1450, ART 1500, ART 1510; ASTU 2450, ASTU 2460, ASTU 3450, ASTU 3460, ASTU 4450. May be repeated for credit.

Teacher Education and Administration

Bilingual and English as a Second Language Education, EDBE

EDBE 3470. Foundations of Bilingual and English as a Second Language Education. 3 hours. Examination of philosophies and theoretical underpinnings of bilingual and ESL education, including a review of historical antecedents of bilingual education and evolution of federal and state language policies governing the education of language-minority children. Required for students seeking EC-6 or 4-8 generalist certification with specialization in bilingual or ESL education. Prerequisite(s): admission to Teacher Education or consent of department. May be taken concurrently with EDBE 3480.

EDBE 3480. Bilingualism/Multiculturalism for English Language Learning: Issues and Perspectives. 3 hours. Study of the bilingual/ESL learner; perspectives on multiculturalism; discussions of cognitive, social and affective factors impacting second language development; insights into education in a pluralistic society. Three lecture hours a week. Fifteen (15) hours of field experiences are required. Required for students seeking EC–6 or 4–8 generalist certification with specialization in bilingual or ESL education or 4–8 certification with mathematics/ESL, science/ESL, social studies/ESL or reading/LA/ESL. Prerequisite(s): admission to Teacher Education or consent of department. May be taken concurrently with EDBE 3470.

EDBE 4470. Curriculum and Assessment for Bilingual/ESL Education. 3 hours. Examination of the organization of curriculum for second language learners with special focus on testing and evaluation procedures appropriate for bilingual and ESL classrooms; study of formal and informal assessment of language proficiency for instructional purposes and use of standardized achievement tests. Required for students seeking EC-6 or 4-8 generalist certification with specialization in bilingual or ESL education. Prerequisite(s): EDBE 3470, EDBE 3480 and admission to Teacher Education or consent of department. May be taken concurrently with EDBE 4490.

EDBE 4480. Bilingual Approaches to Content-Based Learning. 3 hours. (3;0;1.5) Study of appropriate first language usage in bilingual classrooms, focusing on different core curriculum areas, methods and materials and review of language distribution strategies. Focus on responsive instruction that makes use of effective communication techniques and instructional strategies that actively involve students in the learning process. Required for students seeking EC-6 or 4-8 generalist certification with specialization in bilingual or ESL education. Requires 1.5 hours per week field experience in a bilingual education classroom. Language of instruction is Spanish. Prerequisite(s): EDBE 3470 and EDBE 3480, admission to Teacher Education or consent of department and successful completion of departmental proficiency examination in Spanish.