- **6420.** Advanced Software Engineering. 3 hours. Research and study of specific problems in the field of software engineering. Software development methodology, verification and reliability; software quality assurance and productivity; software engineering economics; models and metrics for software management an engineering; human performance engineering; and software configuration management and control. Prerequisite(s): CSCE 5420 or consent of department.
- 6450. Advanced Programming Languages. 3 hours. Current research issues in programming languages. Translation of programming languages, formal semantics and program verification, foundations of structured programming, abstraction, declarative systems and special-purpose languages. Prerequisite(s): consent of department.
- 6480. Computability. 3 hours. Formal languages, grammars and automata, and their relationship to one another. Operations on languages. Unsolvable problems concerning languages. Prerequisite(s): CSCE 5400 and consent of department.
- **6581.** Advanced Computer Networks. 3 hours. Selected topics in computer networks. Study of current high-speed networks technology; design implementation and analysis of communication protocols; TCP/IP, routing protocols, quality of service and network security. Prerequisite(s): CSCE 5580 or consent of department. May be repeated as topics vary.
- 6590. Advanced Topics in Wireless Communications and Networks. 3 hours. Research issues in the design of next generation wireless networks: cellular systems, medium access techniques, signaling, mobility management, control and management for mobile networks, wireless data networks, Internet mobility, quality-of-service for multimedia applications, caching for wireless web access, and ad hoc networks. May be repeated for credit. Prerequisite(s): CSCE 5510 or CSCE 5520.
- 6610. Advanced Computer Architecture. 3 hours. Computer design problems, control structures and microprogramming, microprocessors, large-scale architectures, multiprocessor systems and interconnection networks, fault-tolerance, language-based architectures, special purpose and application-based systems and performance of systems. Prerequisite(s): CSCE 5610 or consent of department.
- 6620. Advanced Real-Time Operating Systems. 3 hours. Seminar course intended to further the knowledge of operating systems design and development. Focuses on distributed and real-time systems, with scheduling, time, and security as the mainstays. This is an advanced graduate level course that covers in detail many advanced topics in operating system design and implementation. It starts with topics such as operating systems structuring, multi-threading and synchronization and then moves on to systems issues in parallel and distributed computing systems. Prerequisite(s): CSCE 5620.
- **6640.** Advanced Operating Systems. 3 hours. Current research issues and advanced topics involving both the principles and pragmatics of operating systems specifications, design and implementation. Prerequisite(s): CSCE 5640 or consent of department.
- **6650.** Advanced Compiler Techniques. 3 hours. Current research issues and advanced topics involving both the principles and pragmatics of compiler systems specification, design and implementation. Prerequisite(s): CSCE 5650.
- **6680.** Advanced Distributed Computing. 3 hours. Selected topics in distributed systems and computer networks. Design of local area networks and multiple network systems; databases, programming languages and operating systems for distributed systems. Prerequisite(s): CSCE 5580 or consent of department.

- 6730. Advanced VLSI Systems. 3 hours. Design and implementation of VLSI systems. Properties of MOS devices, implementation of basic functions, design of memory and processor circuits, languages for circuit design, placement and routing algorithms, and area-time complexity. Prerequisite(s): CSCE 5610 or consent of department.
- **6900. Special Problems.** 1–3 hours. Independent study and research of a specific problem in a field of computer science and engineering. A report defining the problem and developing a solution is required. Problem chosen by the student with the approval of the supervising professor. Prerequisite(s): PhD status. May be repeated for credit with consent of department.
- 6933. Advanced Topics in Computer Science and Engineering. 2–3 hours. Advanced topics and current research issues in computer science and engineering. Prerequisite(s): consent of department.
- **6940. Individual Research.** 1–6 hours. To be scheduled by the doctoral candidate engaged in research. May be repeated for credit.
- **6950. Doctoral Dissertation.** 3, 6 and 9 hours. To be scheduled only with consent of department. 12 hours credit required. No credit assigned until dissertation has been completed and filed with the graduate dean. Doctoral students must maintain continuous enrollment in this course subsequent to passing qualifying examination for admission to candidacy. May be repeated for credit.

Construction Engineering Technology

see Undergraduate Catalog

Counseling

see Counseling, Higher Education and Early Childhood Education

see Psychology

Counseling, Higher Education and Early Childhood Education

Department name change pending approval by the Texas Higher Education Coordinating Board.

Counseling, COUN

5000. Filial Therapy. 3 hours. Training parents to be therapeutic agents in their children's lives through the utilization of play therapy skills in regularly scheduled parent-child structured play sessions in their own homes. How to train parents in the overall principles and methodology of child-centered play therapy is addressed. Prerequisite(s): COUN 5700 or consent of instructor.

5200. Counseling Adolescents. 3 hours. Counseling adolescents requires unique knowledge and skill. Course prepares counselors to work with young people ages 12–21. Focus on the nature and needs of adolescence along with effective strategies in counseling are explored. Prerequisite(s): COUN 5680 and 5710, or consent of department.

- 5300. Counseling in the Community Agency. 3 hours. Didactic and experiential training to prepare the community-oriented counselor for work with service, welfare, health and charitable organizations and agencies that require unique counseling expertise. Prerequisite(s): COUN 5680 and 5710, or consent of department.
- 5400. Planning and Organizing Comprehensive Career Programs. 3 hours. A study of the purposes and functions of a comprehensive career development program; components of a comprehensive career program; techniques for providing comprehensive career programs to junior high, middle school, secondary and adult students.
- 5410. History and Current Trends in Comprehensive Career Counseling Programs. 3 hours. This course will provide an overview of the history of career counseling. Special attention will be focused upon current trends in the field of comprehensive career counseling. Prerequisite(s): COUN 5680 and 5710.
- 5420. Vocational Student Identification, Placement and Follow-up. 3 hours. A focus on the process of identification and assessment of learner's interests and aptitudes; various instruments, methods and techniques used in assessment are examined. Particular emphasis is given to special needs learners, including at-risk youth and other targeting populations.
- **5470.** Career Development and Information Resources. 3 hours. Survey of career development and counseling with emphasis on the occupational, career and educational information service.
- 5480. Biopsychosocial Assessment and Wellness in Counseling. 3 hours. Principles and models of biopsychosocial assessment, case conceptualization and concepts of normalcy leading to an appropriate framework for counseling treatment plans or referral within a managed care framework. DSM-IV diagnosis, disorder prevention and promotion of optimal mental health are studied
- 5530. Animal-Assisted Therapy. 3 hours. Animal-assisted therapy is the incorporation of qualified animals into a therapeutic environment. Explores techniques to facilitate animal-assisted therapeutic interventions in a variety of settings, including schools, counseling agencies, hospitals, nursing homes, hospices, prisons and facilities for individuals with developmental disabilities. A variety of animals can be suitable for therapy programs. The student need not have an animal or pet to take the course. Prerequisite(s): consent of instructor.
- 5540. Women's Emotional Health. 3 hours. Examination of counseling intervention techniques that are effective with women who have emotional, physical or spiritual health concerns. Such concerns may include, but are not limited to, victims of domestic violence or rape; survivors of childhood abuse; and sufferers of eating disorders, bodyimage dissatisfaction, low self-esteem, cancer, premenstrual syndrome and menopause. Prerequisite(s): consent of instructor.
- 5550. Introduction to Biofeedback in Counseling. 3 hours. Introduction to the use of biofeedback technology for the control of psychophysiological functions. The course will cover basic principles of psychophysiological self-regulation and mind-body interaction, basic biofeedback systems and instrumentation, treatment applications, professional conduct and personal experience using biofeedback. Prerequisite(s): COUN 5680 and 5710, or consent of instructor.

- 5560. Practicum in Biofeedback. 3 hours. Experiential training and practice utilizing biofeedback interventions and instrumentation in counseling. The course will require personal experience in using therapeutic biofeedback methods for self and others. Prerequisite(s): COUN 5550 or consent of instructor.
- 5561. Advanced Practicum in Biofeedback. 3 hours. Experiential training and practice utilizing biofeedback and neurofeedback interventions and instrumentation in counseling settings. The course will require personal experience in using therapeutic biofeedback and neurofeedback methods for self and others. Prerequisite(s): COUN 5550, 5560 or consent of instructor. Offered once per year.
- **5570. Teachers as Human Relations Facilitators.** 3 hours. Emphasis on methodological approaches and activities designed to develop the ability to facilitate interpersonal relations in the classroom.
- **5580.** Parent and Family Counseling. 3 hours. The application of family systems theory to the study of family dynamics, family development and the resolution of family conflicts. Prerequisite(s): COUN 5680 and 5710, or consent of department.
- **5590.** Couple Counseling. 3 hours. The application of relationship counseling theory to the study of individual development, interpersonal relationships, marital systems and conflict resolution. Prerequisite(s): COUN 5680 and 5710, or consent of department.
- **5600.** Counseling in Secondary Schools. 3 hours. Principles and practices of counseling in the secondary school related to the curriculum, counseling services and the counseling program. Prerequisite(s): COUN 5680 and 5710, or consent of department.
- **5610. Drug and Addiction Education for Counselors.** 3 hours. Principles and practices of drug and addiction education and abuse prevention with special application to the functions of counselors. Prerequisite(s): COUN 5680 and 5710.
- **5620. Dreamwork in Counseling.** 3 hours. Theory, research and experiential training and practice in the use of dreamwork as an adjunct to counseling with adolescents and adults. Prerequisite(s): COUN 5680 and 5710.
- 5630. Transpersonal Perspective in Counseling.
 3 hours. Theory, major figures and research in the field of transpersonal psychology as it pertains to counseling. The transpersonal perspective is based on the assumption that humans have the potential to develop beyond the "mere" healthy ego into stages often conceptualized as spiritual. Intuitive, paranormal and mystical experiences along with the expansion of identity beyond the self are examined. Prerequisite(s): COUN 5680 and 5710.
- 5640. Group Play Therapy. 3 hours. Philosophy and rationale for group work with children and preadolescents. Focuses on the goals of group play/activity therapy, the role of the play therapist, screening and selection of group members, the use of expressive arts, play, activities at various developmental stages, and planning and structuring sessions. Prerequisite(s): COUN 5700.
- 5660. Advanced Counseling Skills. 3 hours. A competency-based course with experiential emphasis. The student is required to demonstrate proficiency in counseling concepts and techniques before proceeding to COUN 5690. Prerequisite(s): COUN 5480, 5680 and 5710 and 12 additional hours in counseling, or consent of department.

- 5670. Developmental Processes and Strategies. 3 hours. Principles and practices of human development as they relate to counseling processes and strategies. Opportunity for practical application of strategies is provided.
- **5680.** Basic Counseling Skills. 3 hours. A study of selected basic techniques of counseling and of the application of ethical standards in counseling. Course should be taken concurrently with COUN 5710.
- **5690. Practicum in Counseling.** 3 hours. Provides actual counseling experience with a variety of clients and problems. Prerequisite(s): all required degree courses in counselor education except COUN 5720 and 5721.
- **5700. Introduction to Play Therapy.** 3 hours. Enhancing the counseling relationship with children by utilizing play media to facilitate expression, self-understanding, and personal growth and development. Observation of and supervised experience in play therapy with children are an integral part of the course. Prerequisite(s): DFST 5123, COUN 5680 and 5710, or consent of instructor.
- 5710. Counseling Theories. 3 hours. Required upon first resident registration in program for master's degree. The course focuses on professional orientation, selected theories of counseling as they apply to normal and abnormal behavior and self-awareness through individual and group counseling. Degree plans are developed. Course should be taken concurrently with COUN 5680.
- **5720. Internship in Counseling I.** 3 hours. Supervised experience in counseling in schools, colleges or agencies. Prerequisite(s): COUN 5690.
- **5721. Internship in Counseling II.** 3 hours. Supervised experience in counseling in schools, colleges or agencies. Prerequisite(s): COUN 5720.
- 5730. Appraisal in Adult Counseling. 3 hours. Study of appraisal concepts and various instruments, methods and techniques that may be used to assess the strengths, limitations and behavioral patterns of individual clients. Prerequisite(s): COUN 5680 and 5710 and EPSY 5210, or consent of department.
- 5740. Group Counseling Theories and Procedures. 3 hours. Group dynamics and major approaches to group counseling with emphasis on how to start a group counseling program, how to counsel effectively with groups and how to evaluate results. Development of skills of group membership, leadership and working with groups are stressed. Prerequisite(s): COUN 5680 and 5710, or consent of department.
- **5750.** College Student Development Theory. 3 hours. A study of student development theory as it relates to students in higher education and student affairs practice. Prerequisite(s): COUN 5680 or consent of department.
- 5760. Appraisal in Child and Adolescent Counseling.
 3 hours. Study of appraisal concepts and various instruments, procedures, methods and techniques used to assess learning and behavioral patterns of children. Prerequisite(s): COUN 5680 and 5710 and EPSY 5210, or consent of department.
- 5770. Counseling in the Elementary School. 3 hours. Basic orientation to the role of elementary school counselor. Focus is on plans for achieving counseling, consulting and coordinating objectives with emphasis on principles as well as methods. Prerequisite(s): COUN 5680 and 5710, or consent of department.
- **5780.** The Student in Higher Education. 3 hours. A focus on the nature and needs of the college student including older adolescent, young adults and returning adults. Reviews of

- demographic data about diversity of college populations, the changing relationship of students to colleges, the nature of student communities and the diverse patterns of structure and function by which colleges individualize education and provide for student affairs practice. Prerequisite(s): COUN 5680 or consent of department.
- 5790. Counseling Culturally Diverse Clients. 3 hours. Development of counseling skills and strategies based upon the special needs and characteristics of culturally and ethnically diverse clients. Prerequisite(s): COUN 5680 and 5710, or consent of department.
- 5795. Race and Ethnicity in Education. 3 hours. Examination of the basic constructs of race and ethnicity and analysis of how these constructs impact social, cultural, historical and educational environments.
- **5800. Studies in Education.** 1–3 hours. Organized classes specifically designed to accommodate the needs of students and the demands of program development that are not met by the regular offerings. Short courses and workshops that concern themselves with specified topics, repeated only upon demand. May be repeated for credit.
- **5900-5910.** Special Problems. 1–3 hours each. Open to graduate students who are capable of developing a problem independently. Problems chosen by the student and approved in advance by the instructor and department chair.
- **5930. Research Problems in Lieu of Thesis.** 3 hours. Research dealing with significant problems in the field of counseling.
- 6021. Advanced Practicum in Counseling I. 3 hours. Supervised individual and family counseling with a wide range of clients and problems. Focus is on consistent implementation of a personal counseling style. Prerequisite(s): COUN 5690, admission to doctoral program in counseling and concurrent enrollment in COUN 6651, or consent of department.
- **6022.** Advanced Practicum in Counseling II. 3 hours. Supervised counseling with a wide range of clients. Focus is on implementation of an internally consistent, personal theory of counseling. Prerequisite(s): COUN 6021 and concurrent enrollment in COUN 6652.
- 6031-6032. Internship. 3 hours each. Supervised professional activities in counseling. Required of all doctoral candidates. Prerequisite(s): COUN 6022 and 6652; COUN 6031 is a prerequisite to 6032.
- 6060. Personal Growth Laboratory. 3 hours. A small group counseling experience designed to facilitate members' realistic assessment of strengths and weaknesses in the emotional, intellectual and physical dimensions. Goal setting and creation of workable courses of action are encouraged. Prerequisite(s): COUN 5740 and consent of instructor.
- **6070. Practicum in Group Counseling.** 3 hours. Intensive exploration of the dynamics of interpersonal relationships through supervised experience as the facilitator of counseling groups. Students will examine in depth their approach to group leadership in weekly seminar sessions. Prerequisite(s): COUN 5690 and 5740, and consent of instructor.
- **6080.** Seminar in Group Procedures and Group Counseling. 3 hours. A critical analysis of group counseling and various group approaches, such as interpersonal process and other modalities applicable to working with groups. The seminar group explores the underlying theory of various approaches, participates as a group in the experience and then critiques the experience. Prerequisite(s): COUN 5740 and consent of instructor.

- **6090.** Counselor Supervision. 3 hours. Critique of the literature in counselor supervision with discussion and didactic emphasis on the role of the counselor supervisor in the dynamics of supervisory relationships. Laboratory supervising a counseling practicum. Prerequisite(s): COUN 5690, 6021 and 6651; taken concurrently with COUN 6022 and 6652.
- **6110.** Seminar in Career Development. 3 hours. Analysis of the major theories of career development; relationship to major counseling movements, the psychology of career development and human resource development in business and industry are emphasized. Prerequisite(s): COUN 5470 or consent of instructor.
- 6130. Research in Counseling. 3 hours. Survey and analysis of existing research and research methodology in counseling. A review of the literature in selected areas is required. Major research reports are evaluated for methodological strengths and weaknesses. Prerequisite(s): EPSY 6010 and 6020 (must be taken prior to or concurrently with COUN 6130) and admission to doctoral program in counseling, or consent of department.
- 6630. Advanced Play Therapy. 3 hours. Seminar approach to an analysis of the rationale for play therapy in counseling. In-depth study of basic theories of play therapy and the variables that affect the helping relationship. Focus also is upon the counselor's own unique contribution to the relationship and the emotional needs of children. Prerequisite(s): COUN 5700 or consent of instructor.
- 6651. Advanced Theories of Counseling. 3 hours. Study in depth of the major theories of counseling, including the philosophical and psychological assumptions that underlie them. Prerequisite(s): admission to doctoral program in counseling or consent of instructor and concurrent enrollment in COUN 6021 or consent of department; COUN 6651 is a prerequisite of 6652.
- **6652.** Teaching Counselor Education. 3 hours. Overview of the history and development of counselor education with an examination of the theoretical orientation and practical skills necessary to function effectively as a counselor educator. Prerequisite(s): admission to doctoral program in counseling and COUN 6651.
- 6680. Ethical, Legal and Professional Issues in Counseling. 3 hours. Focus on theoretical and research literature concerned with ethical, legal and professional issues relating to counseling, counselor education and counselor supervision. Prerequisite(s): COUN 6651-6652.
- **6900-6910.** Special Problems. 1–3 hours each. Research by doctoral students in fields of special interest. Includes project research studies and intensive reading programs. Conferences with professors in the fields also are included. Problems must be approved in advance by instructor and department chair.
- 6950. Doctoral Dissertation. 3, 6 or 9 hours. To be scheduled only with consent of department. 12 hours credit required. No credit assigned until dissertation has been completed and filed with the graduate dean. Doctoral students must maintain continuous enrollment in this course subsequent to passing qualifying examination for admission to candidacy. May be repeated for credit.

Early Childhood Education, DFEC

5013. Research Strategies and Techniques in Development, Family Studies and Early Childhood Education. 3 hours. Research strategies and techniques and their application to the research process in development, family studies and early childhood education.

- **5030. Practicum, Field Experience or Internship.** 3, 6 or 9 hours each. (0;0;3,6,9) Supervised professional activities in development, family studies and early childhood education. Registration is on an individual basis and student must have prior consent of professor.
- 5513. Advanced Studies in Early Childhood Education.
 3 hours. Advanced survey of theory/philosophy and research related to educating children. Integrative and comprehensive assessment of both classic and recent contributions in the field of early childhood education. Course requires involvement in early childhood setting.
- **5523. Early Childhood Education Colloquium.** 3 hours. Rotating graduate seminar featuring workshops and/or lectureships led by national experts in the field of early childhood education.
- **5613.** Advanced Curriculum for Early Childhood. 3 hours. Study of the principles of curriculum construction and innovative instructional practices for early childhood. Explores research related to organization strategies including planning, arrangement, and selection of materials and evaluation.
- 5623. Environments and Programs for Young Children. 3 hours. Recommended for individuals entering the early childhood profession. Emphasizes the application of early childhood theory and developmentally appropriate practices. Includes curriculum planning, classroom management, and techniques and strategies for effective learning environments.
- 5633. Assessment in Early Childhood Education. 3 hours. Examines the role of assessment in the process of program development, instruction and individual differences. Attention is given to observational strategies, record keeping, analysis of data, instructional planning and program evaluation.
- **5643.** Leadership and Supervision of Programs. 3 hours. Issues and problems in administration of programs for children, youth and families. Includes administrative leadership of programs and staff, effective staff development and supervision.
- 5653. Making the Literacy Connection: Language to Reading. 3 hours. The study of the development of literacy in young children through oral language, listening comprehension, alphabetic knowledge, print awareness and reading. Addresses young children's communication, language diversity, age-appropriate characteristics and appropriate instructional techniques to support literacy and reading. Includes techniques for assessment and evaluation of early language development.
- 5800. Special Topics in Development, Family Studies and Early Childhood Education. 1–3 hours. Organized classes designed to accommodate the needs of students and demands of program development not met by regular offerings. Short courses and workshops on specific topics are offered on a limited basis, to be repeated only upon demand. May be repeated for credit.
- **5900-5910. Special Problems.** 1–3 hours each. Open to graduate students capable of developing a problem independently. Problems chosen by the student and approved in advance by the instructor.
- **5920. Problems in Lieu of Thesis.** 1 hour. Professional paper and oral presentation/defense of that paper under the mentorship of a development and family studies graduate faculty member. Pass/no pass only.

- **5950. Master's Thesis.** 3 or 6 hours. To be scheduled only with consent of department. 6 hours credit required. No credit assigned until thesis has been completed and filed with the graduate dean. Continuous enrollment required once work on thesis has begun. May be repeated for credit.
- **6030. Practicum, Field Problem or Internship.** 3 hours. Mentored professional activities in early childhood education. Registration is based on approval from student's committee. May be taken once for credit.
- **6511.** Continuing Integrative Seminar. 1 hour. Integration of knowledge gained from courses, seminars and community experiences through interaction with practicing professionals to explore the political, economic and social forces that shape and influence early childhood education.
- 6523. History, Philosophy and Ethics of Early Childhood Education. 3 hours. Investigates the origins of early childhood education considering historical, philosophical and ethical issues. Contributions of leaders in early childhood are evaluated through social and educational contexts.
- 6533. Current Readings and Research in Early Childhood Education. 3 hours. Introduction to current research as well as historical and contemporary readings in early childhood education. Contributes to students' roles as professionals in the field. Assigned readings are critically examined; students lead discussions on self-directed readings. Students are required to register for this course in each of their first three terms/semesters of course work. 3 hours required; limit of 4 hours may be applied to the degree plan.
- **6543.** Critical Issues in Early Childhood Contemporary Society. 3 hours. Critical issues and their implications in improving early childhood education and influencing public policy. Issues are explored across change areas (environment, children and families, context, services and agencies) and topic (risk factors, violence, schooling and education, equity, culture and gender).
- 6613. Leadership, Professionalism and Social Change in Early Childhood Education. 3 hours. This course assists early childhood professionals in developing educational leadership, vision and the ability to promote social change through understanding the roles of the individual educator, organizations and the community.
- **6623.** Advocacy in Early Childhood Education. 3 hours. Critical examination of the rationale, evidence and program and policy issues involved in family-oriented early childhood initiatives and service systems. Readings and discussions focus on issues such as the characteristics, strengths and weaknesses of emerging policies and programs to strengthen and support families with young children and change and reform efforts in various agencies.
- 6800. Special Topics in Development, Family Studies and Early Childhood Education. 3 hours. Organized classes designed to accommodate the needs of students and demands of program development not met by regular offerings. Short courses and workshops on specific topics are offered on a limited basis, to be repeated upon demand. May be repeated for credit.
- **6900-6910. Special Problems.** 1–3 hours each. Research by doctoral students in fields of special interest. Includes project research studies and intensive reading programs. Conferences with professors in the fields also are included.
- **6950. Doctoral Dissertation.** 3, 6 or 9 hours. To be scheduled only with consent of department. 12 hours credit required. No credit assigned until dissertation has been completed and filed with the graduate dean. Doctoral students must

maintain continuous enrollment in this course subsequent to passing qualifying examination for admission to candidacy. May be repeated for credit.

Early Childhood Education Courses Offered at Texas Woman's University

Students wishing to enroll in the following TWU courses will do so through a cross-registration mechanism administered by the School of Graduate Studies at UNT.

- EDUC 5613. Language and Literacy in Early Childhood. In-depth study of language and literacy for ages birth through eight, including strategies for promoting early literacy development at home and at school. Prerequisite(s): EDUC 3663 and 3623. Observation/Field Experience: 15 clock hours. 3 lecture hours a week.
- EDUC 5623. Curriculum Development in Early Childhood. In-depth study of basic principles underlying curriculum construction and innovative instructional practices for ages birth to eight; emphasis on research related to organization and sequential arrangement of materials. Prerequisite(s): EDUC 3663 and 3623. Observation/Field Experience: 15 clock hours. 3 lecture hours a week.
- EDUC 5643. Child Growth and Human Development in Early Childhood. Motor, social, emotional and cognitive aspects of the development of children birth through age 8. Observation/Field Experience: 15 clock hours. 3 lecture hours a week.
- EDUC 5653. Observation and Assessment in Early Childhood. Designed to provide a comprehensive knowledge base concerning assessment of young children. Areas of emphasis include development of skills in selection, use and interpretation of developmentally appropriate formal, informal and holistic instruments and procedures; measurement terms and principles; procedures and legal requirements for record keeping; use of technology in assessment; and managing an assessment team. Pererequisite(s): EDUC 3663 and 3623. Observation/Field Experience: 15 clock hours. 3 lecture hours a week.
- EDUC 5663. Reflections and Perspectives in Early Childhood. An analysis of contemporary issues and problems in early childhood including investigations of current research, as well as analysis of ethical, political and advocacy issues. Prerequisite(s): EDUC 3663 and 3623. 3 lecture hours a week.
- EDUC 5673. Home/School/Community Partnerships. Investigate techniques and strategies for developing and implementing effective home, school, community involvement programs in early childhood settings. Observation/Field Experience: 15 clock hours. Prerequisite(s): EDUC 3663 and 3623. 3 lecture hours a week.
- EDUC 5683. Issues in Early Childhood Research and Evaluation. A practical approach to research and evaluation theory and practice, which includes evaluating research articles and evaluation reports, identifying problems or topics for investigation, and synthesizing literature reviews. Quantitative and qualitative methodologies will be compared. Prerequisite(s): EDUC 3663 and 3623. 3 lecture hours a week.
- EDUC 5693. Math/Science/Technology in Early Childhood. Development of mathematical and scientific concepts in children birth through age 8, incorporating the latest technology. Prerequisite(s): EDUC 3663 and 3623. Observation/Field Experience: 15 clock hours. 3 lecture hours a week.

EDUC 6623. Language in Early Childhood Classrooms. Analysis of psycholinguistic research in preschool language development, emphasizing pragmatics; determination of patterns of language use in early childhood classes; interpretation of ethnographic studies of language abilities of school-aged children from varied socioeconomic and ethnic groups from a sociolinguistic perspective; comparison of home and school language display; methods for continuing language growth in the classroom based on the demonstrated processes of language development. 3 lecture hours a week.

EDUC 6653. Child Development of the Kindergarten– Primary Child: Advanced. Analysis of historical, advanced inferential and descriptive research. 3 lecture and 2 laboratory hours a week. Prerequisite(s): 3 hours of research/statistics or permission of instructor.

EDUC 6663. Foundations of Early Childhood Education. Historical, philosophical, sociological, physical and psychological bases for understanding and implementing programs of early childhood education. Prerequisite(s): 3 to 6 hours of child development or permission of instructor. 3 lecture hours a week.

Higher Education, EDHE

- **5100.** Effective College Teaching and Learning. 3 hours. Application of current research, theory and practice to the design, development and management of learning and instruction in colleges and universities. Development of skills and experience using research and practice to design, manage and evaluate learning and instruction in higher education.
- **5110.** Foundations of Student Development Administration. 3 hours. Principles and techniques of administration applied to the student development subsystem of higher education institutions. Applications to both senior and community college institutions.
- **5120. Student Development Programming Administration.** 3 hours. Principles and techniques of creating, analyzing and administering student development programming to meet the needs of heterogeneous college student groups in the areas of academic, social, community and personal development in higher education. Applications to both senior and community college institutions. Prerequisite(s): EDHE 5110.
- **5250. Programming for Conferences, Seminars, Workshops.** 3 hours. Examination of theory and practice for the development and operation of brief learning activities for education, training and development.
- 5710. Trends and Issues in Adult/Continuing Education. 3 hours. An introduction to adult/continuing education that includes a review and analysis of its historical development, social context, current practice and problems, and research.
- **5900. Special Problems.** 1–3 hours. Open to graduate students who are capable of developing a problem independently. Problems chosen by the student and approved in advance by the instructor. Open only to resident students.
- **6030. Practicum, Field Problem or Internship.** 3–6 hours. Supervised professional activities in college teaching research or administration. Registration is on an individual basis.
- **6050. Teaching and Learning in Higher Education.** 3 hours. A study of major theories of teaching and learning with applications to postsecondary instruction. Includes an examination of the processes of identifying instructional

- objectives, assessment, selecting instructional methods, and formative and summative evaluation of student and teacher performance.
- 6060. Introduction to the History and Philosophy of the Community College. 3 hours. Exploration of the development and the evolution of the community college as an innovation in U.S. higher education. Factors that influenced its creation and development, the historical and philosophical roots and the mission and function of community colleges. This course should be the first course taken in the sequence when beginning the community college cognate.
- **6065.** Finance and Administration of the Community College. 3 hours. Examination of the context for and operation of community college administration with emphasis on governance and finance at the local and state levels.
- **6070.** Teaching and Learning in the Community College. 3 hours. A review and application of knowledge and competencies to develop, manage and evaluate instruction in the context of the community college. Includes an examination of learning theory, learners, instructional theory, assessment and the community college as a learning college.
- **6075.** Economic Development and Higher Education. 3 hours. Exploration of the roles, functions and relationships between economic development in communities and higher education institutions. Examines basic aspects of human capital theory along with local, state and federal policy for human resource development and training and the relation of these to economic development.
- **6080.** Leadership in the Community College. 3 hours. Examination of the theory and practice of leadership as these apply to the comprehensive community college. Topics include motivational theory, communications, group decision making, problem solving, conflict resolution, organizational theory, and career planning and development.
- 6085. Contemporary Issues in the Community College. 3 hours. Exploration of key contemporary issues in the community college as these relate to the areas of developmental education, leadership and governance, state support, federal student aid, federal policies affecting higher education and community colleges, evaluation and accountability, professional development, leadership development, diversity and access. This course should be the last course taken in the sequence when finishing the community college cognate.
- **6120. Seminar in Adult and Continuing Education.** 3 hours. A review and critique of research in adult and continuing education. Topics are selected by faculty and vary each term/semester.
- **6500.** Essentials of Academic Publishing in Higher Education. 3 hours. Deals extensively and intensively with major issues and problems affecting academic publishing. Topics treated include copyrights, book reviews, journal articles, policies and practices of professional journals, researching journals, publishing contacts and contracts, and book publishing.
- 6510. History of Higher Education in the U.S. 3 hours. Study of the development of higher education in the United States, including the forces and events that have shaped institutions and institutional culture and practice. Identification of the significant events and actions that have shaped the evolution of higher education institutions and analysis of the implications of these for practice and for the future of higher education.

- **6520.** Research on Students in Higher Education. 3 hours. This course links theories about college student development and research methodology on the study of college student outcomes. Specifically addressed are the conditions and kinds of effects that college attendance has on students. The course considers topics of interest to both practitioners and researchers.
- **6530. Research on Higher Education.** 3 hours. A critical review and analysis of the research literature on higher education and of designs used to conduct research in the field of higher education and on higher education in general.
- **6540.** The Dissertation in Higher Education. 3 hours. Designed to familiarize doctoral students with the various genres of acceptable qualitative and quantitative research in higher education. Emphasis is on research needed in higher education, the psychology and economics of dissertation research and the importance of publishing completed research. Differences between EdD and PhD dissertations are considered.
- **6550. Policy Studies in Higher Education.** 3 hours. Studies in the development, implementation and enforcement of policies by institutions of higher education, state higher education coordinating and governing boards and the federal government. Measurements of the impacts of policies on educational outcomes and institutional management also are examined.
- 6560. Comparative International Higher Education Systems. 3 hours. Survey of the history and organizational concepts, approaches and educational philosophies utilized by selected nations around the world in the development of higher education systems. Attention also is given to the professional literature and research methods used in comparative higher education studies.
- **6570.** The Professoriate in Higher Education. 3 hours. Investigates the American professoriate and the relative importance of teaching, research and service. Includes indepth investigations of the conditions of the professoriate within the range of Carnegie institutional classifications.
- **6640.** The Adult Learner and Adult Learning. 3 hours. A review and analysis with applications to practice of theory and research on adult learners and adult learning.
- **6660.** Seminar in College Student Personnel Work. 3 hours. Intensive study on an individual and group basis of special issues and problems in the organization, practices and administration of college student personnel services.
- **6700. Role of Higher Education in a Democracy.** 3 hours. Examination of the roles, goals, purposes and problems of a diverse pluralistic system of higher education in the unique context of American democracy.
- **6710. General Administration in Higher Education.** 3 hours. An examination of the theoretical principles of organizational behavior, leadership and institutional culture applied to a functional examination of administrative roles in community and senior colleges.
- **6720.** Academic Administration in Higher Education. 3 hours. The functions of administrators of academic programs in institutions of higher education. Emphasis given to philosophy, objectives and curriculum development in academic programs. Both junior and senior college problems are considered.
- **6730.** Organization and Administration of Student Development Services. 3 hours. Principles and techniques of organization and administration applied to the student

- development subsystem of higher education institutions. Designed to provide knowledge and proficiency in theories of organization and administration applied to the institutional level of the chief student development administrator, the effects of organizations on individual and group behavior, and specific administrative skills applied to the student development subsystem and to the programming needs of the institution. Applications to chief student development officers at both senior and community college institutions.
- **6740.** Planning and Analytical Systems in Higher Education. 3 hours. Systems theory; goals and objectives; management information systems; simulation models and planning, programming, budgeting systems (PPBS); evaluation of educational outcomes; and the institutional research function in higher education.
- 6750. Human Resource Development in Higher Education. 3 hours. Examination of research and practice, including principles and techniques for the development, management and evaluation of faculty and staff, in colleges and universities.
- **6760.** Higher Education Finance. 3 hours. Examines the sources of revenues, types of expenditures, budgeting and accounting practices, tuition and financial aid policies, cost containment strategies, and the effects of the economy and state and federal funding on the financing of both private and public institutions of higher education.
- 6780. Educational Resource Development in Higher Education. 3 hours. Designed to provide the administrator in higher education with knowledge and skills in educational resource development. Specific areas to be studied are identification and translation of institutional objectives into support programs and goals, program organization and management, and traditional and non-traditional sources of educational income.
- 6790. Legal Aspects of Higher Education. 3 hours. Legal aspects and issues affecting institutions of higher learning and their administrations, faculties and students. Analyses of decisions rendered by the federal and state courts concerning procedural and substantive due process, civil rights, and the operation and function of higher education.
- **6850. Studies in Higher/Adult Education.** 1–3 hours. Short courses and/or workshops organized on a limited-offering basis, to be repeated only upon demand. May be repeated for credit.
- **6900-6910.** Special Problems. 1–3 hours each. Research by doctoral students in fields of special interest. Includes project research studies and intensive reading programs. Conferences with professors in the fields also are included.
- **6950. Doctoral Dissertation.** 3, 6 or 9 hours. To be scheduled only with consent of department. 12 hours credit required. No credit assigned until dissertation has been completed and filed with the graduate dean. Doctoral students must maintain continuous enrollment in this course subsequent to passing qualifying examination for admission to candidacy. May be repeated for credit.