114. Selected Topics in Formal Methods in Software Development
Fall of even-numbered years. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. R: CPS 614. R: Open only to Computer Science majors. Approaches for the incorporation of formal methods in software development. Current projects using formal methods in software engineering. Object-oriented analysis and development techniques.

120. Selected Topics in High Performance Computer Systems
Spring. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. Interdepartmental with Electrical Engineering. R: Open only to Computer Science or Electrical Engineering majors. Design of high performance computer systems. Seminar format.

131. Advanced Topics in Digital Circuits and Systems (MTU)
Fall, Spring. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. Interdepartmental with Electrical Engineering. Administered by Electrical Engineering. Topics vary each semester. Topics such as testable and multi-tolerant digital systems, embedded architectures.

134. Selected Topics in Artificial Intelligence
Fall. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. R: Open only to Computer Science or Electrical Engineering majors. Topics such as second generation expert systems, human factors, natural language processing, speech understanding, neural networks, genetic algorithms and optimistic planning.

160. Selected Topics in Algorithms and Complexity
Spring of odd-numbered years. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. R: CPS 880. CPS 820. R: Open only to Computer Science majors. Approval of department. Current research in the general theory of algorithms and computational complexity.

190. Selected Topics in Database Systems
Spring. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. R: CPS 880. R: Open only to Computer Science or Electrical Engineering majors. Recent developments in areas such as distributed and parallel database systems, object-oriented database systems, knowledgebase and expert database systems.

999. Doctoral Dissertation Research
Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 72 credits in all enrollments for this course. R: Open only to Computer Science majors. Approval of department.

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150. Reflections on Learning
Fall, Spring, Summer. 3(3-0) Interdepartmental with Teacher Education. Administered by Teacher Education. Students' experiences as learners in comparison to psychological, sociological, and anthropological theories and assumptions about learning and teaching in and out of school.

240. Diverse Learners in Multicultural Perspective
Fall, Spring, Summer. 3(2-1) Interdepartmental with Teacher Education. R: Not open to students with credit in TE 250. Communicative, linguistic, physical, sensory, behavioral, affective, and cognitive differences in learning in multicultural classrooms. Factors that mediate access to knowledge.

260. Dynamics of Personal Adjustment
Fall, Spring, Summer. 3(3-0) Psychological theories of human adjustment. Implications for effective learning, self-development, and adaptation.

261. Substance Abuse
Summer. 3(3-0) Effects of mood-altering chemicals. Treatment approaches and resources. Special emphasis on adolescent users.

301. Introduction to Students With Mild Impairments (W)
Fall. 3(3-0) R: Completion of Tier I writing requirement. Approval of department. Learning and emotional impairments. Characteristics, educational approaches, theories, and issues pertaining to students with mild impairments.

341. American Sign Language and the Deaf Community
Fall, Spring, Summer. 2(2-0) Orientation to deaf culture. Essential signing for those expecting to have intermittent contact with deaf adults.

345. American Sign Language II
Fall, Spring. 3(3-0) R: Open only to students seeking endorsement in deaf education or visual impairment. Completion of Tier I writing requirement. Approval of department. More advanced lexical and syntactic structures of American Sign Language. Sentence types, verb inflections, aspect marking, and story telling. Translations between American Sign Language and English.

441A. American Sign Language I
Fall, Spring, Summer. 3(3-0) R: Open only to freshmen. Production, conversation, and grammatical analysis of American Sign Language.

442A. American Sign Language III
Fall, Spring, Summer. 3(3-0) R: Open to multiple-person discourse. Formal register. Colloquial and idiomatic language. Applications to teaching in American Sign Language.

443A. Braille Literacy I
Fall. 3(1-4) R: Not open to freshmen and sophomores. Reading and writing standard English Braille notes. Familiarity with textbook formats. History and development of Braille. Perkins Braillewriter and slate and stylus.

443B. Braille Literacy II

444. Education of Students with Severe and Multiple Disabilities (W)
Spring. 3(3-0) R: CPS 250 or TE 159. R: Not open to freshmen and sophomores. Completion of Tier I writing requirement. Definition of severe and multiple disability. Special education services for students with severe and multiple disabilities.

445. Educational Technology in Special Education
Spring. 3(1-4) R: CPS 443A or concurrently. R: Approval of department. Technological adaptations for communication, including low technology and high technology, and innovative uses for common devices. SA: CEP 945

449. Behavior Management in Special Education
Spring. 3(3-0) R: Approval of department. Management practices for behavior problems and disorders. Applied behavior analysis, social skills acquisition through cooperative learning and cooperative discipline. Focus on problem-solving and peer collaboration. SA: CEP 849

451. Models of Special Education Administration and Services
Spring. 3(3-0) Interdepartmental with Educational Administration. R: Open only to students seeking endorsement in special education. Approval of department. Application of theory and research in special education program design and implementation. SA: CEP 851

COUNSELING, EDUCATIONAL PSYCHOLOGY AND SPECIAL EDUCATION

CEP
502C. Internship in Teaching Diverse Learners II: Deaf Education
Spring, 6(2-24)
P: CEP 801A, CEP 802C, TE 501 C; CEP 803A, CEP 804C. R: Open only to students seeking teacher certification and endorsement in deaf education. Approval of department. Not open to students with credit in CEP 502A or CEP 502B or CEP 502D or CEP 803D or TE 502.
Internship in heterogeneous classrooms. Increased emphasis on independent teaching. Teaching students who are deaf or hard of hearing in classroom communities that ensure equitable access to important knowledge and skills. Assessing academic, communication, and social outcomes.

592A. Reflection and Inquiry in Teaching Special Education I: Mild Impairment
Fall, 3(3-3)
P: CEP 801A, CEP 802A, TE 501 C. CEP 801A, CEP 802A, CEP 804C. R: Open only to students seeking teacher certification and endorsement in emotional impairment or learning disabilities. Approval of department. Not open to students with credit in CEP 802C or CEP 802D or TE 802.
Qualitative and quantitative research methods on teaching and learning of students with emotional or learning impairments. Framing educational problems in special education. Designing and assessing studies of mathematics and problem-solving.

592C. Reflection and Inquiry in Teaching Special Education I: Deaf Education
Fall, 3(3-3)
P: CEP 801A, CEP 802A, TE 501 C. CEP 801A, CEP 802A, CEP 804C. R: Open only to students seeking teacher certification and endorsement in deaf education. Approval of department. Not open to students with credit in CEP 802C or CEP 802D or TE 802.
Qualitative and quantitative research methods on teaching and learning of deaf students. Framing educational problems in special education. Designing and assessing studies of language development for students who are deaf or hard of hearing.

592D. Reflection and Inquiry in Teaching Special Education I: Visual Impairment
Fall, 3(3-3)
P: CEP 801A, CEP 802A, TE 501 C. CEP 801A, CEP 802A, CEP 804C. R: Open only to students seeking teacher certification and endorsement in visual impairment. Approval of department. Not open to students with credit in CEP 802A or CEP 802B or CEP 802C or CEP 852B or TE 502.
Internship in heterogeneous classrooms. Increased emphasis on independent teaching. Teaching students who are blind or visually impaired in classroom communities that ensure equitable access to important knowledge and skills. Assessing academic, daily living, and social outcomes.

606. Psychology of Learning in School and Other Settings
Fall, Spring, Summer, 3(3-3)
Learning as active, socially-mediated construction of knowledge in school, home, community, and work settings. What is learned, how it is taught and learned, and what learners bring to the setting.

607. Psychological Development: Learner Differences and Commonalities
Fall, Spring, Summer, 3(3-3)
Development of differences and commonalities in learners across the lifespan. Contextual influences on development. Implications for learning in schools and other settings.

802. Developing Positive Attitudes toward Learning
Fall, 3(3-0)
P: CEP 800
Behavioral, individual-difference, and cognitive perspectives on student motivation to learn.
807. **Proseminar in Instructional Development and Educational Technology**
Fall. 3(3-0) R: Open only to graduate students in Educational Psychology with an Instructional Technology emphasis, and in Higher Adult and Lifelong Education.
Objectives, task description and analysis in instructional design. Evaluation as applied primarily to course and unit design.

808. **Instructional Design I**
Fall. 3(3-0) P: CEP 897. R: Open only to graduate students in Educational Psychology with an Instructional Technology emphasis, and in Higher Adult and Lifelong Education.
Principles of instructional design and delivery applied to lessons. Explanation, information processing, transferring, demonstration, practice, mental set motivation. Exposition vs. discovery of facts, concepts, principles and skills.

809. **Instructional Design II**
Spring. 4(2-4) P: CEP 808. R: Open only to graduate students in Educational Psychology with an Instructional Technology emphasis, and in Higher Adult and Lifelong Education.
Principles of instructional design and delivery applied to lessons. Explanation, information processing, transferring, demonstration, practice, mental set motivation. Exposition vs. discovery of facts, concepts, principles and skills.

**901. Teaching for Understanding with Computers**
Fall, Spring, Summer. 3(3-0) P: CEP 416. Cognitive theories applied to the design of meaningful instruction and supportive environments for adults and children learning to use computers and other technologies.

910. **Adapting Innovative Technologies to Education**
Spring. 3(3-0) P: CEP 898. A student may earn a maximum of 6 credits in all enrollments for courses in this course. P: CEP 810. Application of instructional principles and methods to educational problems that involve complex systems. Development of media and computer applications which are interactive, intelligent, multisensory, and innovative.

911. **Applying Instructional Development and Educational Technology for Clients**
Spring. 3(3-0) P: CEP 807. Working with clients in using the instructional development life cycle model to analyze, design, develop, and maintain courses and instructional systems. Topics include hands-on project, consulting, writing and funding proposals, and project management.

912. **Improving Student Problem Solving Skills through Technology**
Fall. Spring. 3(3-0) P: CEP 416. General problem-solving literature. Potential of technology in problem solving. Approaches to integrating technology into the teaching of problem-solving skills.

913. **Improving Student Problem Solving Skills through Technology**
Fall. Spring. 3(3-0) P: CEP 416. General problem-solving literature. Potential of technology in problem solving. Approaches to integrating technology into the teaching of problem-solving skills.

914. **Emotional and Social Development of School-Age Youth**
Fall, Spring, Summer. 3(3-0) R: Open only to graduate students in Educational Psychology with an Instructional Technology emphasis, and in Higher Adult and Lifelong Education.
Personality development. Implications for teaching and learning.

915. **Educational Technology**
Fall, Spring. 3(3-0) R: Open only to graduate students in Educational Psychology with an Instructional Technology emphasis, and in Higher Adult and Lifelong Education.
Analysis, design, implementation, and evaluation.

916. **Educational Technology**
Fall, Spring. 3(3-0) R: Open only to graduate students in Educational Psychology with an Instructional Technology emphasis, and in Higher Adult and Lifelong Education.
Analysis, design, implementation, and evaluation.

917. **Alternative Perspectives on Human Abilities**
Spring. 3(3-0) Interdepartmental with Teacher Education.

918. **Proseminar in Psychological Bases of Literacy Instruction**
Spring. 3(3-0) P: CEP 840. R: Open only to graduate students in Literacy Instruction.
Psychological foundations of literacy instruction. Topics include reading models, writing models, classroom discourse, narrative, and reader response.

**921. Measurement and Evaluation for Counseling and Development**
Fall. Spring. Summer. 3(3-0) Assessment of intelligence, aptitude, achievement, interests, career development, work and personal values, and personality.

922. **Approaches to Educational Research**
Fall, Spring. 3(3-0) R: Open only to graduate students in Education.
Basic assessment for classroom teachers. Design, development, and use of objective test and other methods of assessing and grading student progress, including portfolios and performance assessments.

923. **Evaluation of Educational Programs and Policies**
Spring. 3(3-0) Interdepartmental with Teacher Education.
P: CEP 822. Qualitative and quantitative methods to assess the effectiveness of public policies and resulting educational programs. Theory and practice of program evaluation.

924. **Language Development in Deaf Children: Secondary Level**
Fall, Spring. 3(3-0) P: CEP 442A. R: Open only to graduate students in the Deaf Education Emphasis of Special Education, and in Audiology and Speech Sciences.

925. **Evaluation and Remediation for Mildly Impaired Secondary Students**
Fall. Spring. 3(3-0) P: CEP 846. R: Open only to graduate students in the Deaf Education Emphasis of Special Education, and in Audiology and Speech Sciences.
Strategies for evaluation and remediation of reading and written language disorders. Selection, development, evaluation, and modification of reading and writing programs.

926. **Problems in Learning Secondary Mathematics**
Fall. Spring. 3(3-0) P: CEP 846. C: CEP 894E. R: Open only to graduate students in Special Education.
Techniques and instruments for identifying and remediating learning problems in mathematical areas at the secondary level.
860. Stress Management
Spring, 1 to 15 credits. A student may earn a maximum of 15 credits in all enrollments for this course.
R: CEP 443B, CEP 884A. R: Open only to graduate students in the College of Education. Supervised student teaching in elementary education programs for blind and visually impaired children.

865B. Clinical Teaching: Blind Youth in Secondary Education
Spring, 1 to 10 credits. A student may earn a maximum of 15 credits in all enrollments for this course.
R: CEP 443B, CEP 885A. R: Open only to graduate students in the College of Education. Supervised student teaching in secondary education programs for blind and visually impaired youth.

869B. Clinical Teaching: Deaf/Blind Children and Youth
Spring, 1 to 15 credits. A student may earn a maximum of 15 credits in all enrollments for this course.
R: CEP 857A. R: Approval of department. Supervised student teaching in elementary and secondary education programs for deaf-blind students.

865C. Clinical Teaching: Deaf/Blind Youth in Secondary Education
Spring, 1 to 10 credits. A student may earn a maximum of 10 credits in all enrollments for this course.
R: CEP 857C. R: Open only to graduate students in Special Education with an emphasis in blindness. Approval of department. Supervised teaching experience in secondary education programs for deaf-blind students.

875B. Techniques of Orientation and Mobility
Fall, 3(3-0)
C: CEP 857A. R: Open only to graduate students in Special Education with an emphasis in deaf education or blind education or approval of department. Methods of orientation and navigation related to blindness, structure, function, and problems with the proprioceptive system in relation to orientation and mobility.

875C. Techniques of Orientation and Mobility II
Spring, 3(1-4)
C: CEP 857B. R: Open only to graduate students in Special Education with an emphasis in deaf education or blind education or approval of department. Advanced techniques and methods for negotiating the range of outdoor environments from rural and residential to complex business areas. Simulated under blindfold and low vision conditions.

880. Special Education Law
Fall, 3(2-0) Interdepartmental with Educational Administration.
R: Seniors and above
Analysis of State and Federal regulations, guidelines and court decisions related to special education and examination of their impact.

885. Independent Study: Education of Deaf Learners
Fall, Spring, 1 to 6 credits. A student may earn a maximum of 8 credits in all enrollments for this course.
R: Open only to graduate students in College of Education. Directed individual study related to educating students who are deaf or hard of hearing.

890. Stress Management
Fall, Spring, 3(3-0)
Physiological and psychological foundations of the human stress response. Therapeutic approaches to stress management.

894A. Perspectives in Multicultural Counseling
Summer, 3(3-0)
Impact of health, socio-cultural, economic, educational, legal, and vocational issues on the delivery of counseling service to diverse populations. Utilization process in both institutional and personal change.

896. Counseling Theory, Philosophy, and Ethics
Fall, 3(3-0)
R: Open only to graduate students in Counseling, Rehabilitation Counseling, and School Psychology. Selected counseling theories. Foundations of ethical decision-making. Professional standards, guidelines, and issues concerning the training and work of the counselor and school psychologist. Legal issues and precedents.

896. Introduction to Individual and Group Counseling
Fall, Spring, 3(3-0)
R: Open only to graduate students in the College of Education, College of Human Ecology, or School of Social Work. Forming, working with, and ending groups. Building relationships. Handling obstacles. Developing and carrying out agendas in counseling. Simulated individual and group practice.

896. Counseling and Consulting Models and Strategies
Spring, 3(3-0)
R: CEP 861, CEP 862. R: Open only to graduate students in Counseling, Rehabilitation Counseling, School Psychology. Models and strategies for working with children, adolescents, and adults in counseling and consulting roles. Developing working relationships, assessing problems, setting goals, planning treatments, and evaluating outcomes.

896. Career Counseling
Spring, 3(3-0)
R: Open only to graduate students in Education. Career development theories and labor market and occupational information. Assessing and planning aspects of career counseling with various populations.

896. Foundations of Rehabilitation Counseling
Fall, 3(3-0)
R: Open only to graduate students in Rehabilitation Counseling. Approvals of department. History, philosophy, values, legislation, policy and practices of the field of rehabilitative counseling.

896. Medical and Psychological Aspects of Disability
Fall, 3(3-0)
Types of physical, cognitive and emotional disabilities and their implications for vocational rehabilitation. Psychosocial adjustments to chronic disease and disability.

896. Social and Environmental Aspects of Rehabilitation
Spring, 3(1-0)
Social and political factors that handicap individuals with disabilities. The Independent Living movement, philosophy, legislation and services, accommodations and enabling technology, attitude modification and client empowerment.

896. Employment Strategies for Individuals with Disabilities
Fall, 3(3-0)
Public policy, resources, and intervention strategies for assisting persons with disabilities to adapt to the workplace and to achieve vocational outcomes. Assisting employers in accommodating and retaining employees with disabilities.

896. Habilitation Strategies
Summer, 3(3-0)
Historical, legislative, theoretical, and operational aspects of the transition from school to work for youth with congenital, developmental, and other severe disabilities.

896. Substance Abuse and Treatment
Summer, 3(3-0)
Physical, intellectual, social, and psychological effects of chemical use and abuse. Assessment tools and strategies for therapeutic intervention.

896. Professional Issues in Rehabilitation Counseling
Spring, 3(3-0)
R: CEP 870, CEP 884A concurrently. R: Open only to master's students in Rehabilitation Counseling. Applications of case management strategies, processes and practices in rehabilitation counseling.

896. Vocational Assessment and Research in Rehabilitation
Fall, 3(3-0)
R: CEP 821, CEP 870. R: Open only to master's students in Rehabilitation Counseling and doctoral students in Rehabilitation Counseling. Advanced assessment techniques and strategies for rehabilitation settings. Applied research and program evaluation in rehabilitation counseling.

896. Individual Measurement: The Biometric and Wechsler Scales
Fall, 3(3-0)
R: CEP 820, CEP 885, PSY 475. Projective and objective personality assessment of children and adolescents in school.

896. Seminar in Counseling, Educational Psychology and Special Education (MTC)
Fall, Spring, Summer, 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. Seminar in the various fields of emphasis in Counseling, Educational Psychology and Special Education.

896. Psychology of Classroom Discipline
Summer, 3(3-0)
R: Open only to graduate students in College of Education. Teaching experience. Approval of department. Theories of and strategies for the resolution of classroom discipline problems.

896. Roles and Functions of School Psychologists: Focus on Consultation
Spring of odd-numbered years, 3(3-0)
R: CEP 801, CEP 821, CEP 880. R: Open only to graduate students in School Psychology. Multiple roles of school psychologists from a systems perspective. Emphasis on consultation strategies for working with schools and families. Historical, legal, ethical, and cultural issues.

896. Behavior Disorders in Children
Fall, 3(3-0)
R: 12 graduate credits in Educational Psychology or related area. Not open to students with credit in PSY 853 or PSY 854. Characteristics, causes, and treatment of school-related behavior disorders in children within a developmental framework.
Descriptions — Counseling, Educational Psychology and Special Education of Courses

890. Independent Study
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 9 credits in all enrollments for this course. Individual or group study guided by a faculty member.

893A. Rehabilitation Counseling Internship
Fall, Spring, Summer. 9(1-40)
P: CEP 894A. R: Open only to graduate students in Rehabilitation Counseling or Rehabilitation Counseling and School Counseling. Approval of department. Supervised internship experience in community rehabilitation settings.

893B. Internship in School Psychology
Fall, Spring. 3(0-20)
P: CEP 894B. R: Open only to graduate students in School Psychology. Supervised experience in the practice of school psychology. Diagnosis, consultation and intervention.

893C. Counseling Internship
Fall, Spring. 3 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course.
P: CEP 895. R: Open only to master’s students in Counseling. Application and integration of knowledge and skills in counseling individuals and groups in schools and agencies. Assessment, intervention, and evaluation of outcomes in field settings.

893D. Teaching Internship in Elementary Defect Education
Spring. 1 to 15 credits. A student may earn a maximum of 15 credits in all enrollments for this course.
P: CEP 840, CEP 841, CEP 842A, CEP 843. R: Open only to graduate students in Special Education. Approval of department. Supervised teaching of deaf students in a public school or school for deaf children.

893E. Teaching Internship in Secondary Defect Education
Spring. 1 to 15 credits. A student may earn a maximum of 15 credits in all enrollments for this course.
P: CEP 840, CEP 841, CEP 842A, CEP 843. R: Open only to graduate students in Special Education. Approval of department. Supervised teaching of deaf students in a public school or school for deaf children.

893F. Special Education Internship in Elementary Teaching
Fall, Spring. 4 to 9 credits. A student may earn a maximum of 9 credits in all enrollments for this course.
P: CEP 846. R: Open only to graduate students in the mildly impaired/elementary emphasis in Special Education. Supervised teaching of mildly impaired, learning disabled students in elementary schools or clinical settings.

893G. Special Education Internship in Secondary Teaching
Fall, Spring. 4 to 9 credits. A student may earn a maximum of 9 credits in all enrollments for this course.
P: CEP 846. R: Open only to graduate students in the mildly impaired/secondary emphasis in Special Education. Supervised teaching of mildly impaired, learning disabled students in secondary schools or clinical settings.

894A. Rehabilitation Counseling Practicum
Fall, Spring. 6(3-12)
P: CEP 892. R: Open only to graduate students in Rehabilitation Counseling. Supervised practicum in a rehabilitation or human services setting.

894B. School Psychology Practicum
Fall, Spring. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
P: CEP 880, CEP 885, CEP 846 or concurrently. C: CEP 884. R: Open only to graduate students in School Psychology. Approval of department. Administration and interpretation of individual and group measures. Report writing. Consultation and team decision making.

894C. Counseling Practicum
Fall, Spring. 6(3-12)
P: CEP 883. R: Open only to master’s students in Counseling. Supervised counseling experience in schools or agency. Analysis and critique of these experiences through group and individual consultation with the instructor.

894D. Practicum in Educational Psychology
Fall, Spring, Summer. 1 to 5 credits. A student may earn a maximum of 5 credits in all enrollments for this course.
P: CEP 800, CEP 801. R: Open only to graduate students in Educational Psychology. Approval of department.
Practicum in educational, business, or consulting settings. Possible projects include designing, developing, implementing, or evaluating instructional programs; conducting research; or working with practitioners to incorporate innovative instructional technologies.

894E. Practicum in Orientation and Mobility
Spring. 1 to 10 credits. A student may earn a maximum of 10 credits in all enrollments for this course.
P: CEP 857C. R: Open only to graduate students in Education. Supervised practice in teaching independent travel to visually impaired and blind students in elementary and secondary education.

894F. Practicum in Orientation and Mobility: Secondary Education
Spring. 1 to 10 credits. A student may earn a maximum of 10 credits in all enrollments for this course.
P: CEP 857C. R: Open only to graduate students in Special Education with an emphasis in blindness. Supervised teaching of independent travel to visually impaired and blind students in secondary education.

894G. Teaching Practicum: Mildly Impaired Children in Elementary Education
Fall, Spring. 1 to 10 credits. A student may earn a maximum of 10 credits in all enrollments for this course.
P: CEP 846. C: CEP 847A. R: Open only to graduate students in Special Education. Field experience with students who have mild impairments. Planning, implementing, and critiquing instruction in school settings.

894H. Teaching Practicum: Mildly Impaired Youth in Secondary Education
Fall, Spring. 1 to 10 credits. A student may earn a maximum of 10 credits in all enrollments for this course.
P: CEP 846. C: CEP 847B. R: Open only to graduate students in Special Education. Field experience with students who have mild impairments. Planning, implementing, and critiquing instruction in school settings.

894I. Teaching Practicum: Deaf Children in Elementary Education
Fall, Spring. 1 to 10 credits. A student may earn a maximum of 10 credits in all enrollments for this course.
P: CEP 840 or concurrently. R: Open only to graduate students in Special Education. Field experience with deaf and hard-of-hearing students. Planning, implementing, and critiquing instruction in school settings.

894J. Teaching Practicum: Deaf Youth in Secondary Education
Fall, Spring. 1 to 10 credits. A student may earn a maximum of 10 credits in all enrollments for this course.
P: CEP 840 or concurrently. R: Open only to graduate students in Special Education. Field experience with deaf and hard-of-hearing students. Planning, implementing, and critiquing instruction in school settings.

899. Master’s Thesis Research
Fall, Spring, Summer. 1 to 9 credits. A student may earn a maximum of 15 credits in all enrollments for this course.

900. Proseminar in Educational Psychology I
Fall. 3(3-0)
P: CEP 900. R: Open only to Ph.D. students in Counseling, Educational Psychology, and Special Education. Historical, theoretical, empirical, methodological, and philosophical issues. Research literature on learning, teaching subject matter, and social-cultural contexts.

901. Proseminar in Educational Psychology II
Spring. 3(3-0)
P: CEP 900. R: Open only to Ph.D. students in Counseling, Educational Psychology, and Special Education. Further work on historical theoretical, empirical, methodological, and philosophical issues. Research literature on learning, teaching subject matter, and social-cultural contexts.

902. The Psychology of Learning School Subjects
Spring. 3(3-0)
P: CEP 902. R: Open only to Ph.D. students in the College of Education. Psychological theories and research regarding learning and teaching of school subjects, including mathematics, science, and reading. Psychological learning contexts in and out of school. Transfer and representation of knowledge.

903. Cognitive Development across the Lifespan
Fall. 3(3-0)
P: CEP 901. R: Open only to Ph.D. students in Education. Development of thinking skills in learning across the lifespan from three theoretical perspectives. Relationship between cognitive development and learning in schools and other contexts.

904. Social-Emotional Development across the Lifespan
Spring. 3(3-0)
P: CEP 901 or CEP 903. R: Open only to Ph.D. students in the College of Education. Qualitative and quantitative measurement of changes in emotional, and social aspects of human development.

905. Cultural Perspectives on Learning and Development
Spring of odd-numbered years. 3(3-0)
P: CEP 900, CEP 901. R: Open only to graduate students in College of Education. Theories and research in cultural psychology. Relations among culture, learning, and human development in school and other settings such as family, community, and work. Implications for educational practice.
906. Socio-cultural Bases of Cognition and Education
Fall of even-numbered years. 3(3-0)
R: Open only to Ph.D. students in Education. Social and cultural-historical mediation of human cognition. Emphasis on theoretical and epistemological aspects of teachers and teaching. Topics include teacher decision-making, learning from experience and developmental changes.

907. Psychological Study of Teaching
Fall of odd-numbered years. 3(0-0) Interdepartmental with Teacher Education.
R: Open only to Ph.D. students in Education.
Research literature on psychological aspects of teachers and teaching. Topics include teacher decision-making, learning from experience and developmental changes.

908. Instructional Theories
Spring of odd-numbered years. 3(3-0)
P: CEP 809. R: Open only to graduate students in Educational Psychology. Characteristics of instructional-design theories. Epistemological inquiry, specific subject matters, and meta-theories.

909. Cognition and Technology
Spring. 3(3-0)
R: Open only to Ph.D. students in College of Education.
Technology in education. Theories of research on cognition and technology. Epistemological, social, ethical, and policy issues raised by technology. Computer as metaphor for mind. Representational systems.

910. Current Issues in Motivation and Learning
Spring of even-numbered years. 3(3-0)
R: Open only to Ph.D. students in Education. Enduring questions about motivation and learning. Role of skill versus will in motivation. Higher-order thinking in learning.

911. Psychology and Pedagogy of Literacy
Fall of even-numbered years. 3(0-0) Interdepartmental with Teacher Education.
R: Open only to doctoral students in College of Education, College of Arts and Letters, and College of Social Science.
Psychological, historical, and methodological foundations of research and practice in literacy instruction.

912. Psychology and Pedagogy of Mathematics
Fall of odd-numbered years. 3(3-0) Interdepartmental with Teacher Education.
P: CEP 902. R: Open only to Ph.D. students in College of Education.
Psychological theory and research on the learning of mathematics. Development of mathematical thinking and knowledge in school and other settings.

913. Psychology and Pedagogy of Science
Spring of odd-numbered years. 3(3-0) Interdepartmental with Teacher Education.
P: CEP 902. R: Open only to Ph.D. students in College of Education.
Psychological and epistemological aspects of learning and teaching science.

914. Language, Literacy and Learning
Spring of even-numbered years. 3(3-0) Interdepartmental with Teacher Education.
P: CEP 902. R: Open only to Ph.D. students in Education.
Role of language in mediating cognition, affect, and action in educational contexts. Relationship between oral and written discourse and sociocultural contexts.

915. Technology and Education
Fall of even-numbered years. 3(0-0)
R: Open only to doctoral students in College of Education.
Diffusion of instructional technology in schools and other settings. Evaluation of effects of technology. Policy issues, including technology for special populations. Case studies of technology use in institutions.

916. Current Applications in Educational Technology
Fall of odd-numbered years. 3(3-0)
R: Open only to Ph.D. students in College of Education or approval of department.
Recent developments in educationally relevant computer and other instructional media. Case studies of innovative uses of technology in schools and universities.

917. School-Based Psychological Interventions
Spring of odd-numbered years. 3(0-0)
P: CEP 885. R: Open only to Ph.D. students in School Psychology, Counseling, Educational Psychology, Special Education, and Social Work.
Direct and indirect strategies focused on children, teachers, administrators, programs, and organizations. Topics include preschool interventions, group interventions in schools, and peer-oriented interventions.

918. Educational Assessment
Fall. 3(3-0)
R: Open only to doctoral students in College of Education, College of Human Ecology, and College of Social Science.
Teacher-made and standardized techniques for measuring achievement. Topics include grading, policy issues, affective assessment, and performance measurement.

919. Psychometric Theory I
Spring. 3(3-0)

920. Psychometric Theory II
Fall. 3(3-0)
P: CEP 921; one statistics course. R: Open only to Ph.D. students.
Expansion of generalizability theory, test and item bias, and equating. Measurement of change, profile analysis, scaling approaches, and validity generalization.

921. Item Response Theory
Spring of odd-numbered years. 3(3-0)
P: CEP 921, CEP 931.
Item response theory applied to test construction, scaling, and equating tests and their items.

922. Educational and Policy Analysis
Fall of even-numbered years. 3(3-0)
P: CEP 821 or CEP 824 or CEP 920.
Educational and policy analysis of assessment-related legal cases and the use of statistical evidence in legal arguments. Topics include teacher licensure, diploma sanction tests, discrimination challenges, and due process.

923. Educational Data and the Law
Fall of even-numbered years. 3(3-0)
P: CEP 821 or CEP 824 or CEP 920.
Educational and policy analysis of assessment-related legal cases and the use of statistical evidence in legal arguments. Topics include teacher licensure, diploma sanction tests, discrimination challenges, and due process.

924. Educational Inquiry
Spring. 4(4-0) Interdepartmental with Teacher Education.
R: Open only to students with credit in CEP 822. Not open to students with credit in CEP 822.
Alternative approaches to educational research; quantitative, interpretive, and custom. Theoretical assumptions, sources of questions, data collection and analysis, and rhetoric.

925. Qualitative Methods in Educational Research
Fall. 4(4-0) Interdepartmental with Teacher Education.
P: CEP 822 or CEP 930. One introductory research design or statistics course. R: Open only to graduate students in College of Education, College of Agriculture and Natural Resources, or College of Human Ecology.
Techniques of data analysis and statistical inference used in educational and psychological research. Multiple regression, analysis of variance, and basic principles of experimental design in educational settings.

926. Multivariate Data Analysis II
Spring. 4(4-0)
P: CEP 934. R: Open only to doctoral students in College of Education, College of Agriculture and Natural Resources, and College of Human Ecology.
Multivariate methods, matrix algebra, and the general linear model as applied to educational research settings.

927. Advanced Topics in Multivariate Data Analysis I
Fall. 4(4-0)
P: CEP 930. R: Open only to doctoral students in College of Education, College of Agriculture and Natural Resources, and College of Human Ecology.
Application of discrete and continuous multivariate methods in educational research.

928. Synthesis of Educational Research
Spring of odd-numbered years. 4(4-0)
P: CEP 930. R: Open only to Ph.D. students.
Synthesis and meta-analysis in educational research.

929. Survey Research Methods in Education
Spring. 4(5-3)
P: CEP 803. R: Open only to graduate students in the College of Agriculture and Natural Resources, College of Education, and College of Human Ecology.

930. Seminar in Educational Measurement
Fall of even-numbered years. 3(3-0)
P: CEP 921. R: Open only to doctoral students in College of Education.
Current issues in educational measurement. Topics include ethics and standards in testing, school effectiveness indices, and parameters of teacher testing.
Descriptions — Counseling, Educational Psychology and Special Education of Courses

940. Policy Analysis of Trends in Special Education
Spring. 3(3-0)
R: Open only to doctoral students in Special Education or approval of department.
Economic, social, legal and organizational trends in special education within the theoretical framework of organizational change.

941. Academic Issues in Special Education for At-Risk Students
Spring of odd-numbered years. 3(0-0)
R: Open only to doctoral students in Special Education or approval of department.
Academic assessment and instructional research in special education. Inquiry in special education related to the design and evaluation of academic programs for learning disabled, mentally retarded, emotionally impaired, and other low achieving students.

942. Educational Perspectives on Low-Incidence Populations in Special Education
Fall of even-numbered years. 3(3-0)
R: Open only to doctoral students in Special Education in College of Education.
Practice and policy relating to the educational consequences of low-incidence disabilities. Emphasis on deafness, blindness, deaf-blindness, and multiple/severe disability. Placement and accommodation issues in integrated educational settings.

943. Multicultural Issues in Special Education
Fall of odd-numbered years. 3(3-0)
R: Open only to doctoral students in Special Education or approval of department.
Relationships among race, gender, culture, social class, and disability. Individual, group and societal responses to disability. Anthropological, social and psychological theories about origins of cultural diversity.

944. Research Seminar in Special Education
Fall. 3(3-0)
P: CEP 933. R: Open only to Ph.D. students in Special Education.
Application of research methods in special education. Topics include data collection, analysis, interpretation, and dissemination.

944D. Practicum in Counselor Education
Fall. Spring. 3(1-6) A student may earn a maximum of 15 credits in all enrollments for this course.
R: Open only to doctoral students in Rehabilitation Counseling and School Counseling. Approval of department.
Theory and supervised practice in educating, and supervising prospective counselors. Approaches, models, and strategies.

945. Critical Issues in Special Education
Spring. 3(3-0)
P: CEP 901. R: Open only to doctoral students in Special Education or approval of department.
Topics in special education, including cognition and sensory impairments, literacy for at-risk students, program design, small sample research, and staff development.

950. Research Seminar in Counseling Psychology
Fall. 3(3-0)
R: Open only to doctoral students in counseling psychology and school psychology.
Historical development of counseling psychology as a professional discipline. Traditional and contemporary issues in theory, research, practice and training.

960. Theoretical Foundations of Counseling Psychology
Fall. 3(3-0)
R: Open only to Ph.D. students in Counseling Psychology and School Psychology.
Theoretical models of counseling, personality, and behavior change. Research literature on the process and outcomes of counseling. Selected professional issues.

961. Perspectives on Diversity in Counseling Psychology
Spring. 4(3-4)
R: Open only to doctoral students in Counseling Psychology and School Psychology, Psychology, and Family and Child Ecology.
Cultural, gender, and disability dynamics as they affect human functioning and counseling practices. Strategies and techniques for multicultural perspectives in counseling.

962. Psychology of Career Development
Spring. 3(0-9)
P: CEP 964. R: Open only to Ph.D. students.
Theories of career choice and development. Psychological processes underlying vocational behavior.

963. Ethics in Counseling Psychology
Spring. 3(3-0)
R: Open only to doctoral students in Counseling Psychology and School Psychology, Rehabilitation Counseling and School Counseling, and Family and Child Ecology.
Traditional and contemporary issues in theory, research, practice and training with a focus on ethics including ethical theory, principles, standards, codes of conduct, and legal issues.

964. Counseling Foundations
Fall of odd-numbered years. 3(3-0)
P: CEP 960 or concurrently. R: Open only to doctoral students in College of Education.

965. Current Research and Issues in Counseling
Fall of even-numbered years. 3(3-0)
P: CEP 964. R: Open only to doctoral students in Rehabilitation Counseling and School Counseling. Approval of department.
Practice and research issues in rehabilitation counseling and school counseling.

966. Psychological Diagnosis and Assessment I
Fall. 3(3-0)
P: CEP 960. C: CEP 994A. R: Open only to doctoral students in Counseling Psychology.

967. Psychological Diagnosis and Assessment II
Spring. 3(3-0)
P: CEP 966, CEP 994B. R: Open only to Ph.D. students in Counseling Psychology.
Diagnostic categories, mental status examination, differential diagnosis, and objective and projective psychological assessment.

968. Research Methods in Counseling Psychology
Fall. 3(3-0)
P: CEP 953. R: Open only to Ph.D. students in Counseling Psychology.
Research topics and designs in counseling psychology, with emphasis on the development of a viable research proposal.

969. Supervision of Counseling Psychologists
Spring. 3(2-3)
P: CEP 967, CEP 994B. R: Open only to Ph.D. students in Counseling Psychology and School Psychology.
Theoretical, empirical and practical aspects of the supervisory relationship. Process and outcome variables.

972. Seminar in Counseling, Educational Psychology and Special Education (MTC)
Fall. Spring. Summer. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course.
R: Open only to doctoral students in College of Education.
Seminars in the various fields of emphasis in counseling, educational psychology, and special education.

980. Independent Study
Fall. Spring. Summer. 1 to 6 credits. A student may earn a maximum of 9 credits in all enrollments for this course.
R: Open only to Ph.D. students. Individual or small group study, guided by a faculty member, in the areas of Counseling, Educational Psychology and Special Education.

981A. Special Topics in Educational Psychology
Fall. Spring. Summer. 1 to 6 credits. A student may earn a maximum of 9 credits in all enrollments for this course.
R: Open only to Ph.D. students.

981B. Special Topics in Educational Statistics and Research Design
Fall. Spring. 4(3-0)
P: CEP 953. R: Open only to Ph.D. students.

984A. Counseling Psychology Practicum I
Fall. 3(0-9)
P: CEP 960. C: CEP 996. R: Open only to Ph.D. students in Counseling Psychology.
Supervised practice in counseling, assessment, diagnosis and related professional activities within an agency providing counseling and psychological services.

984B. Counseling Psychology Practicum II
Spring. 3(0-9)
P: CEP 994A. C: CEP 996. R: Open only to Ph.D. students in Counseling Psychology.
Intermediate supervised practice in counseling, assessment, diagnosis and related professional activities within an agency providing counseling and psychological services.

984C. Advanced Practicum in Counseling Psychology
Spring. 3(0-9)
P: CEP 994B. R: Open only to Ph.D. students in Counseling Psychology.
Client conceptualization, assessment, intervention design, ethical and professional development issues, supervision, and consultation.

985. Practicum in Research Design and Data Analysis
Fall. Spring. Summer. 1 to 4 credits.
P: CEP 933. R: Open only to Ph.D. students in College of Education.
Supervised practicum. Design, execution, analysis, presentation, critique, and revision of research projects.
CRIMINAL JUSTICE
School of Criminal Justice
College of Social Science

110. Introduction to Criminal Justice
Fall, Spring, Summer. 3(3-0)
Description and analysis of agencies and processes involved in administration of justice in the United States.

210. Introduction to Forensic Science
Spring, Fall. 4(4-0)

220. Criminology
Fall, Spring. 3(3-0) Interdepartmental with Sociology.
P: CJ 110 or SOC 100. R: Open only to undergraduate students in Criminal Justice or Forensic Science or Sociology or approval of school.

292. Methods of Criminal Justice Research
Fall, Spring, Summer. 4(4-0)
P: CJ 220. R: Not open to freshmen. Open only to students in the School of Criminal Justice.
Logic, design, analysis and ethical principles in criminal justice research. Indicators of crime and its control.

335. Police Process
Fall, Spring, Summer. 3(3-0)
P: CJ 292. R: Open only to juniors or seniors in Criminal Justice or Forensic Science.
Roles, responsibilities, issues, and trends pertinent to contemporary law enforcement organizations in contemporary society.

355. Juvenile Justice Process
Fall, Spring, Summer. 3(3-0)
P: CJ 292. R: Open only to juniors or seniors in Criminal Justice or Forensic Science.
The juvenile justice system and law. Theories of juvenile delinquency and deviance. Sociological, psychological, and anthropological perspectives.

365. Corrections Process
Fall, Spring, Summer. 3(3-0)
P: CJ 292. R: Open only to juniors or seniors in Criminal Justice or Forensic Science.
Historical and contemporary views of offender management and treatment. Corrections system operation. Effects of institutionalization. Alternatives to incarceration.

375. Criminal Law Process
Fall, Spring. 4(4-0)
P: CJ 292. R: Open only to juniors or seniors in Criminal Justice or Forensic Science.
Administration of criminal law. Investigation, prosecution, adjudication, and sentencing. Constitutional safeguards and legal controls on official action.

385. Introduction to Private Security
Fall. 3(0-0)
R: Not open to freshmen and sophomores.
Relationships of private protective services with public law enforcement. Individuals, businesses, and governments providing prevention, protection, investigation, and disaster recovery services. Protection of persons, property, and information.

400H. Honors Study
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to Honors College seniors, or approval of school.
Faculty-supervised group or individual study dealing with a phase of the criminal justice system.

419. Forensic Science I
Fall. 3(0-6)
P: CJ 310, CJ 292, CRM 259, CRM 265, PHY 232, PHY 252. R: Open only to seniors in Forensic Science.

429. Forensic Science II
Spring. 3(0-6)
P: CJ 419. R: Open only to seniors in Forensic Science.

432. Forensic Science III
Spring. 3(0-6)
P: CJ 432.
Scientific examination of biological evidence. Relationship of scientific evidence to forensic work.

461. Forensic Science IV
Spring. 3(0-6)
P: CJ 461.

471. Criminal Justice and Women's Studies
Fall. 3(3-0) Interdepartmental with Women's Studies.
R: Open only to juniors in Criminal Justice and Women's Studies.
Women's experiences as victims, offenders, and criminal justice employees. Laws and their effects on the rights of women in the criminal justice system.

475. Criminal Law and Policy
Spring. 3(3-0)
P: CJ 385 or CJ 365. R: Open only to juniors or seniors in Criminal Justice or Forensic Science.
Introduction to careers in law enforcement. History, theory, law, and practice of crime control.

476. Correctional Programming and Analysis
Fall. 3(3-0)
P: CJ 385 or CJ 365. R: Open only to juniors or seniors in Criminal Justice or Forensic Science.
Contemporary institutional and community correctional programs. Research on adult and juvenile crime prevention, diversion, and treatment programs.

477. Corrections Organizations and Systems
Fall. 3(3-0)
P: CJ 385 or CJ 365. R: Open only to juniors or seniors in Criminal Justice or Forensic Science.
Contemporary institutional and community correctional programs. Research on adult and juvenile crime prevention, diversion, and treatment programs.

478. Law and Criminal Justice Policy
Spring. 4(4-0)
P: CJ 375. R: Open only to juniors or seniors in Criminal Justice.
Impact of law on police practices, court processes, and corrections institutions and programs. Development, implementation, and evaluation of judicial policies.

485. Asset Protection Management
Spring. 3(3-0)
P: CJ 385. R: Open only to seniors in Criminal Justice.
Completion of Tier I writing requirement. Risk analysis, security surveys, and audits to control losses due to crime, errors, and safety and environmental hazards. Management of asset protection and loss prevention programs in business, industry, and government.