841. Artificial Intelligence Fall, 3(3-0) R: Open only to Computer Science or Electrical Engineering majors.
Types of intelligence, knowledge representation, cognitive models, goal-based systems, heuristic search and expert systems. Language understanding, robotics and computer vision, theorem proving and deductive systems, and learning.

845. Knowledge-Based Systems (MTC) Spring, 2 to 3 credits. A student may earn a maximum of 9 credits in all enrollments for this course.
R: CPS 841. R: Open only to Computer Science or Electrical Engineering majors.
Research literature examining model-based reasoning, design, or diagnosis. Effectiveness and potential for future developments.

846. Laboratory in Knowledge-Based Systems (MTC) Summer, 2(1-1) A student may earn a maximum of 6 credits in all enrollments for this course.
R: CPS 841. R: Open only to Computer Science or Electrical Engineering majors.
Development of a working model-based reasoning, design, diagnostic system. Design, implementation, and testing.

900. Foundations of Computing Fall, 3(3-0) R: CPS 360. R: Open only to Computer Science or Electrical Engineering majors.

921. Advanced Topics in Artificial Intelligence Fall, Spring, Summer. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course.
R: CPS 841. R: Open only to Computer Science or Electrical Engineering majors.
Research literature examining model-based reasoning, design, or diagnosis. Effectiveness and potential for future developments.

950. Selected Topics in Computer Networks and Distributed Systems Spring, 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 841. R: Open only to Computer Science or Electrical Engineering majors.
Advanced topics in software, parallel computer networks, distributed systems, and object-oriented 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.

COUNSELING, EDUCATIONAL PSYCHOLOGY AND SPECIAL EDUCATION CEP

Department of Counseling, Educational Psychology and Special Education
College of Education

156. 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(2-2) 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.

281. 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) Spring. 3(3-0) R: Open only to students admitted to the teacher certification program in emotional impairment or learning disabilities. Completion of Tier I writing requirement. Learning and emotional impairments. Characteristics, causes, educational approaches, theories, and issues pertaining to students with mild impairments.
444. Educational Technology in Special Education
Spring, 3(3-4)
P: CEP 444A or concurrently, R: Open only to students admitted to the teacher certification program in deaf education or visual impairment or to master's students in the Special Education major. Technological adaptations for communication, including low technology and high technology, and innovative uses for common devices.
SA: CEP 445

449. Behavior Management in Special Education
Spring, 3(3-0)
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 admitted to the teacher certification program in emotional impairment or learning disabilities or to master's students in the Special Education major. Application of theory and research to special education program design and implementation.
SA: CEP 851

452. Students With Disabilities in the Regular Classroom
Fall, Spring, 3(3-0)
Problems and issues in educating children with disabilities in the least restrictive environment. Legal, attitudinal, and practical factors which influence teachers and students.
SA: CEP 852

456A. Deaf-Blind Children and Youth in Elementary and Secondary Education
Fall, Spring, 3(3-0)
P: CEP 444A or concurrently, CEP 444A or concurrently. R: Open only to students admitted to the teacher certification program in deaf education or visual impairment or to master's students in the Special Education major. Assessing and teaching deaf-blind students. Sensory skills, behavior management and modification, language, communication and independent living.
SA: CEP 856A

457. Principles of Orientation and Mobility
Fall, 3(3-0)
R: Open only to students admitted to the teacher certification program in visual impairment or to master's students in the Special Education major. Philosophical, social, and psychological aspects of independent mobility for people who are blind and disabled. Environmental awareness and concept development in using adaptive travel techniques for navigation.
SA: CEP 857A

460. Communication Skill Training for the Helping Professional
Fall, Spring, 3(3-0)
R: Not open to freshmen or sophomores. Interpersonal communication focusing on dynamics of listening process, interpersonal style, and barriers to communication. Self-study. Interpersonal process recall.

500. Psychology of Learning in School and Other Settings
Fall, Spring, 3(3-0)
Learning as active, socially-mediated construction of knowledge in schools, home, community, and work settings. What is learned, how it is taught and learned, and what learners bring to the setting.

801. Psychological Development: Learner Differences and Comonalities
Fall, Spring, 3(3-0)
Development of differences and commonalities in learners across the lifespan. Contextual influences on development. Implications for learning in schools and other settings.
802A. Professional Role in Teaching Special Education I: Collaboration and Consultation
Fall (3-0)
P: CEP 802A, CEP 802C or CEP 802E concurrently. R: Open only to students admitted to the teacher certification program in special education or to master's students in the Special Education major. Professional and ethical responsibilities. Models and methods of collaboration with teachers, parents, and community agencies to foster learning for students with impairments. Advocacy for students with impairments in school and community settings.

802B. Developing Positive Attitudes toward Learning
Fall (3-0)
P: CEP 800.
Behavioral, individual-difference, and cognitive perspectives on student motivation to learn.

802C. Reflection and Inquiry in Teaching Special Education I: Mild Impairment
Fall (3-0)
P: CEP 301. C: CEP 301A, TE 510 concurrently. R: Open only to students admitted to the teacher certification program in special education or to master's students in the Special Education major. Not open to students with credit in CEP 802C or CEP 802D.
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.

802D. Reflection and Inquiry in Teaching Special Education I: Visual Impairment
Fall (3-0)
P: CEP 801A, TE 501 concurrently. R: Open only to students admitted to the teacher certification program in visual impairment or to master's students in the Special Education major. Not open to students with credit in CEP 802C or CEP 802D.
Qualitative and quantitative research methods on teaching and learning of deaf students. Framing education problems in special education. Designing and assessing studies of language development for students who are deaf or hard of hearing.

803A. Professional Role in Teaching Special Education II: Assessment of Mild Impairment
Spring (3-0)
P: CEP 801A, CEP 802A, TE 501. C: CEP 502A or CEP 502B, CEP 804A concurrently. R: Open only to students admitted to the teacher certification program in emotional impairment or learning disabilities or to master's students in the Special Education major. Not open to students with credit in CEP 803C or CEP 803D.
School-agency alliances for fostering student learning. Informal and formal assessment methods for planning and evaluating instruction and for classifying and placing students who are mildly impaired. Engage with families to improve responsiveness to the assessment.

803B. Professional Role in Teaching Special Education II: Assessment of Deaf Students
Spring (3-0)
P: CEP 801A, CEP 802C, TE 501, C: CEP 502C, CEP 804C concurrently. R: Open only to students admitted to the teacher certification program in deaf education or to master's students in the Special Education major. Not open to students with credit in CEP 803A or CEP 803D.
School-agency alliances for fostering student learning. Informal and formal assessment methods for diagnosing communication functions. Engage with families to improve responsiveness to the assessment of communication skills.

803C. Professional Role in Teaching Special Education II: Visual Impairment
Spring (3-0)
P: CEP 801A, CEP 802D, TE 501, C: CEP 502D, CEP 804D concurrently. R: Open only to students admitted to the teacher certification program in visual impairment or to master's students in the Special Education major. Not open to students with credit in CEP 803A or CEP 803D.
School-agency alliances for fostering student learning. Informal and formal assessment methods for expected outcomes for students who are blind. Engage with families to improve responsiveness to the assessment of expected outcomes.

804A. Reflection and Inquiry in Teaching Special Education II: Mild Impairment
Spring (3-0)
P: CEP 801A, CEP 802A, TE 501. C: CEP 502A or CEP 502B, CEP 804A concurrently. R: Open only to students admitted to the teacher certification program in emotional impairment or learning disabilities or to master's students in the Special Education major. Not open to students with credit in CEP 804C or CEP 804D.
Collecting, analyzing and interpreting data related to the teaching and learning of literacy for students with learning or emotional impairments. Imposing and reporting results of inquiry. Developing and studying learning communities which facilitate learning for mildly impaired students.

804B. Reflection and Inquiry in Teaching Special Education II: Visual Impairment
Spring (3-0)
P: CEP 801A, CEP 802D, TE 501. C: CEP 502D, CEP 804D concurrently. R: Open only to students admitted to the teacher certification program in visual impairment or to master's students in the Special Education major. Not open to students with credit in CEP 804A or CEP 804D.
Collecting, analyzing and interpreting data related to teaching, learning and educational policy. Appraising and reporting results of inquiry. Designing and assessing studies of teaching practice in academic subject learning related to students who are deaf or hard of hearing.

804D. Reflection and Inquiry in Teaching Special Education II: Deaf Education
Spring (3-0)
P: CEP 801A, CEP 802D, TE 501, C: CEP 502D, CEP 804D concurrently. R: Open only to students admitted to the teacher certification program in visual impairment or to master's students in the Special Education major. Not open to students with credit in CEP 804A or CEP 804D.
Collecting, analyzing and interpreting data related to teaching, learning and educational policy. Appraising and reporting results of inquiry. Designing and assessing teaching and learning of Braille mathematics for students who are blind. Facilitating the use of low vision.

805. Learning Mathematics
Fall (3-0) Interdepartmental with Teacher Education.
Learning and development of mathematical thinking and knowledge in educational settings from perspectives of psychology, anthropology, mathematics, and other disciplines. Implications for teaching.

806. Learning of Science
Fall (3-0)
R: Open only to graduate students in College of Education.
Psychological and epistemological perspectives under-lying various approaches to science education. Instructional implications emerging from these perspectives.

807. Seminar in Instructional Development and Educational Technology
Fall (3-0)
Educational technology as applied to theory, process, and methods of instructional development, including analysis, design, implementation, and evaluation.

808. Instructional Design I
Fall (3-0)
P: CEP 807. R: Open only to graduate students in Educational Psychology with an Instructional Technology emphasis and in Higher Adult and Lifelong Education.
Goals, objectives, task description and analysis in instructional design. Evaluation as applied primarily to course and unit design.

809. Instructional Design II
Spring (3-0)
P: CEP 808. R: Open only to graduate students in the College of Education.
Principles of instructional design and delivery applied to lessons. Explanation, information processing, transfer, demonstration, practice, mental set, motivation, exposition vs. discovery of facts, concepts, principles and skills.
Counseling, Educational Psychology and Special Education — Descriptions of Courses

810. 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.

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

812. 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.

813. 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.

814. Emotional and Social Development of School-Age Youth
Fall, Spring, Summer. 3(3-0)
Research on emotional and social development from birth through adolescence. Personality development. Implications for teaching and learning.

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

819. Proseminar in Psychological Bases of Literacy Instruction
Fall, Spring. 3(3-0)
P: TE 940. 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.

821. 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.

822. Approaches to Educational Research
Fall, Spring, Summer. 3(3-0)
Alternative methods of educational research. Identifying researchable problems in education and developing a research proposal. Applications of descriptive and inferential statistics for analyzing and critiquing published studies.

824. Classroom Assessment
Fall, Spring. 3(3-0) Interdepartmental with Teacher Education.
R: Open only to graduate students in College of 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.

825. Evaluation of Educational Programs and Policies
Spring. 3(3-0) Interdepartmental with Teacher Education.
P: CEP 812.
Qualitative and quantitative methods to assess the effectiveness of public policies and resulting educational programs. Theory and practice of program evaluation.

842B. Language Development in Deaf Children: Secondary Level
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.

847B. Evaluation and Remediation for Mildly Impaired Secondary Students
Spring. 3(3-0)
P: CEP 803A, C: CEP 894H concurrently. R: Open only to graduate students in the Counseling Psychology and School Psychology or Special Education major.
Strategies for evaluation and remediation of reading and written language disorders. Selection, development, evaluation, and modification of reading and writing programs.

848B. Problems in Learning Secondary Mathematics
Fall. 3(3-0)
P: CEP 803A, C: CEP 894H concurrently. R: Open only to graduate students in the Special Education major.
Techniques and instruments for identifying and remediating learning problems in mathematical areas at the secondary level.

854B. Clinical Teaching: Blind Children in Elementary Education
Spring. 1 to 15 credits. A student may earn a maximum of 15 credits in all enrollments for this course.
P: CEP 445B, CEP 885A. R: Open only to graduate students in the College of Education.
Supervised student teaching in elementary education programs for blind and visually impaired children.

855B. Clinical Teaching: Blind Youth in Secondary Education
Spring. 1 to 15 credits. A student may earn a maximum of 15 credits in all enrollments for this course.
P: CEP 445B, CEP 855A. R: Open only to graduate students in the College of Education.
Supervised student teaching in secondary education programs for blind and visually impaired youth.

856B. 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.
P: CEP 456A. R: Open only to master’s students in the Special Education major.
Supervised student teaching in elementary and secondary education programs for deaf-blind students.

856C. Clinical Teaching: Deaf-Blind Youth in Secondary Education
Spring. 1 to 15 credits. A student may earn a maximum of 10 credits in all enrollments for this course.
P: CEP 856A concurrently. R: Open only to master’s students in the Special Education major.
Supervised teaching experience in secondary education programs for deaf-blind students.

857B. Techniques of Orientation and Mobility I
Fall. 3(1-4)
P: CEP 857A concurrently. 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.

857C. Techniques of Orientation and Mobility II
Spring. 3(1-4)
P: CEP 857B concurrently. 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.

858. Special Education Law
Fall of even numbered years. 3(3-0) Interdepartmental with Educational Administration.
P: Open only to seniors or graduate students.
Analysis of State and Federal regulations, guidelines and court decisions related to special education and examination of their impact.

861. Counseling Theory, Philosophy, and Ethics
Fall. 3(3-0)
P: CEP 856A. R: Open only to masters 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.
Counseling, Educational Psychology and Special Education

862. 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.

863. Counseling and Consulting Models and Strategies
Spring. 3(3-0)
P: CEP 881, CEP 882. R: Open only to graduate students in Counseling, Rehabilitation Counseling, School Psychology. Maturing and strategies for working with children, adolescents, and adults counseling and consulting roles. Developing working relationships, assessing problems, setting goals, planning treatments, and evaluating outcomes.

864. 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.

870. Foundations of Rehabilitation Counseling
Fall. 3(3-0)
R: Open only to master's students in the Rehabilitation Counseling major. History, philosophy, values, legislation, policy and practice of the field of rehabilitative counseling.

871. 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.

872. Social and Environmental Aspects of Rehabilitation
Spring. 3(3-0)
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.

873. 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.

874. Rehabilitation 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.

875. 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.

876. Professional Issues in Rehabilitation Counseling
Spring. 3(3-0)
P: CEP 870, CEP 893A concurrently. R: Open only to Master's students in Rehabilitation Counseling. Applications of case management strategies, processes and practices in rehabilitation counseling.

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

880. Individual Measurement: The Binet and Wechsler Scales
Fall. 3(0-0)

881. Personality Assessment
Spring. 3(0-0)
P: CEP 821, CEP 895, PSY 475. R: Open only to students in the Counseling Psychology and School Psychology major or the School Psychology major or approval of department. Projective and objective personality assessment of children and adolescents in school.

882. 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.

883. Psychology of Classroom Discpline
Summer. 3(3-0)
R: Teaching experience. Theories of and strategies for the resolution of classroom discipline problems.

884. Roles and Functions of School Psychologist: Focus on Consultation
Spring of odd-numbered years. 3(3-0)
P: CEP 820, 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.

885. Behavior Disorders in Children
Fall. 3(3-0)
P: 12 graduate credits in Educational Psychology or related area. R: Not open to students with credit in PSY 853 or PSY 854. Characterization, causes, and treatment of school-related behavior disorders in children within a developmental framework.

886. 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.

890. Research in Counseling
Fall. 3(3-0)
P: 9-50, CEP 892 concurrently. R: Open only to master's students in the Rehabilitation Counseling major. Supervised research experience in community rehabilitation settings.

893A. Rehabilitation Counseling Practicum
Fall. 3(3-0)
P: CEP 894 concurrently. R: Open only to master's students in the Rehabilitation Counseling major. Supervised practice in rehabilitation counseling.

893B. Internship in School Psychology
Fall. 3(3-0)
P: CEP 890 concurrently. R: Open only to students in the School Psychology major. Supervised experience in the practice of school psychology. Diagnostics, 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 865. R: Open only to masters 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 Education
Fall. 3(3-0)
P: CEP 890 concurrently. R: Open only to master's students in the Special Education major. Supervised teaching of deaf students in a public school or school for deaf children.

893E. Teaching Internship in Secondary Education
Fall. 1 to 15 credits. A student may earn a maximum of 15 credits in all enrollments for this course. P: CEP 842B. R: Open only to graduate students in the Special Education major. 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 893A. 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 893A. CEP 847B or CEP 848B concurrently. 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.
894D. 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. C: CEP 884 concurrently. R: Open only to graduate students in the School Psychology major.  
Supervised practicum experience in schools or agencies.  
Report writing, consultation and team decision making.

894E. Practicum in Educational Psychology  
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.  
P: CEP 860, CEP 861. R: Open only to graduate students in the Educational Psychology major.  
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.

894F. Practicum in Orientation and Mobility  
Spring. 1 to 6 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 practicum in teaching independent travel to visually impaired and blind students in elementary and secondary education.

894G. Practicum in Orientation and Mobility: Secondary Education  
Spring. 1 to 6 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.

894H. 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 803A, C: CEP 804A concurrently. R: Open only to graduate students in the Special Education major.  
Field experience with students who have mild impairments. Planning, implementing, and critiquing instruction in school settings.

894I. 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 803A, C: CEP 847B concurrently. R: Open only to graduate students in the Special Education major.  
Field experience with students who have mild impairments. 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.

895. Research Ethics  
Summer. 1 credit. Interdepartmental with Physical Education and Exercise Science, Teacher Education, and Educational Administration. Administered by Physical Education and Exercise Science.  
Students learn the principles of research, including rules of conduct, and ethical policies. Students learn to critique, implement, and evaluate research in a school setting.

897. Master's Thesis Research  
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 15 credits in all enrollments for this course.

899. Doctoral Dissertation Research  
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 15 credits in all enrollments for this course.  
P: CEP 900. R: Open only to Ph.D. students in Counseling, Educational Psychology and Special Education.  
Doctoral dissertation research and related professional activities within an agency or school setting.  
Field experience with deaf and hard-of-hearing students. Planning, implementing, and critiquing instruction in school settings.

905. Cultural Perspectives on Learning and Development  
Spring of even-numbered years. 3(3-0)  
P: CEP 800. R: Open only to graduate students in the College of Education.  
Theories and research in cultural psychology. Relations among culture, learning, and human development.  
Field experience in settings such as family and community, and work implications for educational practice.

906. Sociocultural Bases of Cognition and Education  
Fall of even-numbered years. 3(3-0)  
P: CEP 800.  
R: Open only to Ph.D. students in Education.  
Theories and research on human cognition. Emphasis on the formative role of educational contexts in influencing both what and how we think, feel, and act.

907. Psychological Study of Teaching  
Fall of odd-numbered years. 3(3-0) Interdepartmental with Teacher Education.  
P: CEP 800. R: Open only to graduate students in Educational Psychology.  

908. Instructional Theories  
Spring of odd-numbered years. 3(3-0)  
P: CEP 800.  
R: Open only to graduate students in Educational Psychology.  
Theories and research on human cognition. Empirical and subjective theories, and policy issues raised by technology.  
Computer metaphor for mind. Representational systems.

910. Current Issues in Motivation and Learning  
Spring of even-numbered years. 3(3-0)  
P: CEP 800.  
R: Open only to Ph.D. students in the College of Education.  
Enduring questions about motivation and learning, role of skill versus will in motivation. Higher-order thinking in learning.

912. Psychology and Pedagogy of Literacy  
Fall of even-numbered years. 3(3-0) Interdepartmental with Teacher Education.  
P: CEP 800.  
R: Open only to doctoral students in the 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.

913. Psychology and Pedagogy of Mathematics  
Fall of even-numbered years. 3(3-0) Interdepartmental with Teacher Education.  
P: CEP 800.  
R: Open only to Ph.D. students in the College of Education.  
Psychological theory and research on the learning of mathematics. Development of mathematical thinking and knowledge in school and other settings.

914. Psychology and Pedagogy of Science  
Spring of odd-numbered years. 3(3-0) Interdepartmental with Teacher Education.  
P: CEP 800.  
R: Open only to Ph.D. students in the College of Education.  
Psychological and epistemological aspects of teaching and learning science.