#### 200 Master's Thesis Research

Fall, Spring, Summer. 1 to 8 credits. A student may earn a maximum of 24 credits in all enrollments for this course. R: Open only to Computer Science majors. Approval of department. SA: CPS 899

Master's thesis research.

### 902 Selected Topics in Recognition by

Spring. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. P:NM: (CSE 802 and CSE 803) R: Open only to Computer Science or Electrical Engineering majors. SA: CPS 902

Advanced topics in pattern recognition and computer vision such as Markov random fields, modeling and recognition of three dimensional objects, and integration of visual modules.

### **Selected Topics in Computer Networks** 910 and Distributed Systems

Spring of even years. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. P:NM: (CSE 422 and CSE 812) R: Open only to Computer Science or Electrical Engineering majors. SA: CPS 910

Advanced topics and developments in highbandwidth computer networks, protocol engineering, and distributed computer systems.

### Formal Methods in Software 914 Development

Fall. 3(3-0) P:NM: (CSE814 or CSE870) RB: Undergraduate courses in software engineering and in logic R: Open only to students in the Department of Computer Science and Engineering. SA: CPS 914

Current research in selected areas of software engineering such as: approaches for the incorporation of formal methods in software development; current projects using formal methods in software engineering; object-oriented analysis and development techniques; and approaches for the incorporation of user-interface analysis and design in software development.

### 920 Selected Topics in High Performance Computer Systems

Spring of odd years. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. P:M: (CSE 822) R: Open only to Computer Science and Engineering majors or approval of Department. SA: CPS 920

Design of high performance computer systems. Seminar format

### 921 Advanced Topics in Digital Circuits and Systems (MTC)

Fall, Spring. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. Interdepartmental with Electrical and Computer Engineering. Administered by Department of Electrical and Computer Engineering. SA: CPS 921

Topics vary each semester. Topics such as testable and fault-tolerant digital systems, embedded archi-

### Selected Topics in Artificial Intelligence 941

Fall. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. P:NM: (CSE 841) R: Open only to Computer Science or Electrical Engineering majors. SA: CPS 941

Topic such as second generation expert systems, human factors, natural language processing, speech understanding, neural networks, genetic algorithms and opportunistic planning.

## Selected Topics in Algorithms and Complexity

Spring of odd years. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. P:NM: (CSE 830 and CSE 860) R: Open only to graduate students in the Department of Computer Science and Engineering. Approval of department. SA: CPS 960

Current research in the general theory of algorithms and computational complexity.

#### 980 Selected Topics in Database Systems

Spring. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. P:NM: (CSE 880) R: Open only to Computer Science or Electrical Engineering majors. SA: CPS 980

Recent developments in areas such as distributed and parallel database systems, object oriented database systems, knowledgebase and expert database systems.

### **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, SA: CPS 999

Doctoral dissertation research.

# COUNSELING. **EDUCATIONAL PSYCHOLOGY AND** SPECIAL EDUCATION CEP

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

Reflections on Learning Fall, Spring, Summer. 3(3-0) Interdepartmental with Teacher Education. Administered by Department of 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.

## **Diverse Learners in Multicultural** Perspective

Fall, Spring, Summer. 3(2-2) Interdepartmental with Teacher Education. 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.

### **Dynamics of Personal Adjustment** 260

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

## Substance Abuse

Summer. 3(3-0)

Effects of mood-altering chemicals. Treatment approaches and resources. Special emphasis on adolescent users.

# Introduction to Students With Mild

Impairments (W)
Spring. 3(2-2) P:M: Completion of Tier I writing requirement. R: Open only to students admitted to the teacher certification program in emotional impairment or learning disabilities.

Learning and emotional impairments. Characteristics, causes, 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.

### 416 **Teaching and Learning With Technology**

Fall, Spring, Summer. 3(3-0) R: Open only to juniors or seniors or graduate students in the College of Education.

Uses of technology in teaching and learning. Major emphasis on developing plans for implementing and evaluating uses of technology in the classroom

### Introduction to Educating Deaf 440

Children (W)
Fall. 3(2-2) P:M: Completion of Tier I writing requirement. P:NM: (CEP 442B) R: Open only to students admitted to the teacher certification program in deaf education or to master's students in the special education major. SA: CEP 840

Political, social, methodological, historical, philosophical, and legal issues in educating deaf children and youth.

### American Sign Language I 441A

Fall, Spring, Summer. 3(3-0) P:M: (CEP 341) R: Not open to freshmen.

Production, conversation, and grammatical analysis of American Sign Language.

### American Sign Language II 441B

Fall, Spring, Summer. 3(3-0) P:M: (CEP 441A)

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 Eng-

## American Sign Language III

Fall. 3(3-0) P:M: (CEP 441B)

Use of space for multiple-person discourse. Formal register. Colloquial and idiomatic language. Applications to teaching in American Sign Language.

# American Sign Language IV

Spring. 3(3-0) P:M: (CEP 442A)

Use of space for creative interpretation of literature, science, mathematics, socio-historical concepts. Formal register. Colloquial and idiomatic language.

443A Braille Literacy I
Fall. 3(1-4) R: Open only to undergraduate students in the Special Education major whose area of emphasis is visual impairment or to master's students in the Special Education major.

Reading and writing standard English Braille Grade II. Familiarity with textbook formats. History and development of Braille. Perkins Braillewriter and slate and stylus.

#### 443B Braille Literacy II

Spring. 4(1-6) P:M: (CEP 443A) R: Open only to undergraduate students in the Special Education major whose area of emphasis is visual impairment or to master's students in the Special Education major.

Accuracy in reading and writing Nemeth Braille Code for mathematics and science, use of abacus for basic math operations.

### 444 Education of Students with Severe and

Multiple Disabilities (W)
Spring. 3(3-0) P:M: Completion of Tier I writing requirement. R: Not open to freshmen or sophomores.

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) P:NM: (CEP 443A or concurrently) R: Open only to seniors in the Special Education major whose area of emphasis is visual impairment or to master's students in Special Education major. SA: CEP 845

Technological adaptations for communication, including low technology and high technology, and innovative uses for common devices.

### 449 **Behavior Management in Special** Education

Spring. 3(3-0) SA: CEP 849

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.

### Models of Special Education 451 Administration and Services

Spring. 3(2-2) 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.

### 452 Students With Disabilities in the Regular Classroom

Fall, Summer. 3(3-0) SA: CEP 852

Problems and issues in educating children with disabilities in the least restrictive environment. Legal, attitudinal, and practical factors which influence teachers and students.

#### 456A Deaf-Blind Children and Youth in

Elementary and Secondary Education Fall. 4(3-2) P:NM: (CEP 441A or concurrently and CEP 443A 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. SA: **CEP 856A** 

Assessing and teaching deaf-blind students. Sensory skills, behavior management and modification, language, communication and independent living.

Principles of Orientation and Mobility Fall. 3(2-3) R: Open only to students admitted to the teacher certification program in visual impairment or to master's students in the Special Education major. SA: CEP 857A

Philosophical, social, and psychological aspects of independent mobility for persons who are blind and disabled. Environmental awareness and concept development in using adaptive travel techniques for navigation.

## 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. Emphasis on the mastery of

### Disability in a Diverse Society 470

Spring. 3(3-0) R: Open only to juniors or seniors or graduate students.

Needs and life experiences of persons with various physical and mental disabilities, types of services designed to meet these needs, multicultural issues relevant to disabilities, and career opportunities available in the field.

# **Internship in Teaching Diverse Learners**

**II: Learning Disabilities**Spring. 6(2-24) P:NM: (CEP 801A and CEP 802A and TE 501) R: Open only to students admitted to the teacher certification program in learning disabilities or to master's students in the Special Education major. Not open to students with credit in CEP 502B or CEP 502C or CEP 502D or CEP 893F. C: CEP 803C concurrently, CEP 804C concurrently.

Internship in heterogeneous classrooms. Increased emphasis on independent teaching. Teaching students with learning disabilities in classroom communities that ensure equitable access to important knowledge and skills. Assessing academic and social outcomes.

# Internship in Teaching Diverse Learners

II: Emotional Impairment Spring. 6(2-24) P:NM: (CEP 801A and CEP 802A and TE 501) R: Open only to students admitted to the teacher certification program in emotional impairment or to master's students in the Special Education major. Not open to students with credit in CEP 502A or CEP 502C or CEP 502D or CEP 893F. C: CEP 803A concurrently, CEP 804A concurrently.

Internship in heterogeneous classrooms. Increased emphasis on independent teaching. Teaching students who are emotionally impaired in classroom communities that ensure equitable access to important knowledge and skills. Assessing academic and social outcomes.

### 502C Internship in Teaching Diverse Learners

**II: Deaf Education**Spring. 6(2-24) P:NM: (CEP 801A and CEP 802C and TE 501) 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 502A or CEP  $\,$ 502B or CEP 502D or CEP 893F. C: CEP 813C concurrently, CEP 804C concurrently.

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.

### Internship in Teaching Diverse Learners 502D II: Visual Impairment

Spring. 6(2-24) P:NM: (CEP 801A and CEP 802D and TE 501) 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 502A or CEP 502B or CEP 502C or CEP 854B. C: CEP 803D concurrently, CEP 804D concurrently.

Internship in heterogenous 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.

### 800 Psychology of Learning in School and Other Settings

Fall, Spring, Summer. 3(3-0)

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.

## **Psychological Development: Learner Differences and Commonalities**

Fall, Spring, Summer. 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.

### Professional Role in Teaching Special Education I: Collaboration and Consultation

Fall. 3(2-3) P:NM: (TE 401) R: Open only to students admitted to the teacher certification program in special education or to master's students in the Special Education ma Not open to students with credit in TE 801. C: CEP 802A concurrently, CEP 802C concurrently, TE 501 concurrently.

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.

# **Developing Positive Attitudes toward**

Learning Fall. 3(3-0) P:NM: (CEP 800)

Behavioral, individual-difference, and cognitive perspectives on student motivation to learn.

### 802A Reflection and Inquiry in Teaching

Special Education I: Mild Impairment Fall. 3(2-3) P:NM: (CEP 301) R: Open only to students admitted to the teacher certification program in emotional impairment or learning disabilities or M.A. students in the Special Education major or Ed.S. or Ph.D. students in the School Psychology major. Not open to students with credit in CEP 802C or CEP 802D. C: TE 501 concurrently, CEP 801A concurrently.

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.

### 802C Reflection and Inquiry in Teaching Special Education I: Deaf Education

Fall. 3(2-3) 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 802A or CEP 802D. C: CEP 801A concurrently, TE 501A concurrently.

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.

### Reflection and Inquiry in Teaching 802D Special Education I: Visual Impairment

Fall. 3(2-3) 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 802A or CEP 802C. C: CEP 801A concurrently. TE 501 concurrently.

Qualitative and quantitative research methods on

teaching and learning of blind students. Framing education problems in special education. Designing and assessing studies of Braille literacy and other expected outcomes of special education.

### Psychodynamics of Self-Concept **Development and Self-Understanding** Fall, Spring, Summer. 3(3-0)

Self-concept development from childhood through adulthood. Development of self-awareness and understanding of one's personal and interpersonal style. Self -esteem enhancement strategies. Implications for teachers and learners.

### Professional Role in Teaching Special 803A Education II:Assessment of Mild Impairment

Spring. 3(2-3) P:NM: (CEP 801A and CEP 802A and TE 501) R: Open only to students admitted to the teacher certification program in emotional impairment or learning disabilities or M.A. students in the Special Education major or Ed.S. or Ph.D. students in the School Psychology major. Not open to students with credit in CEP 803C or CEP 803D. C: CEP 502A concurrently, CEP 502B concurrently, CEP 804A concurrently.

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.

### **Professional Role in Teaching Special** 803C **Education II: Assessment of Deaf** Students

Spring. 3(2-3) P:NM: (CEP 801A and CEP 802C and TE 501) 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. C: CEP 502C concurrently, CEP 804C concurrently.

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.

## Professional Role in Teaching Special Education II: Visual Impairment

Spring. 3(2-3) P:NM: (CEP 801A and CEP 802D and TE 501) R: Open only to students admitted to the teacher certification program in visual impairment or to master's students in the Special Education ma jor. Not open to students with credit in CEP 803A or CEP 803C. C: CEP 502D concurrently, CEP 804D concurrently.

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.

### Psychology of Adolescence for Teachers 804 Fall. 3(3-0)

Adolescent growth with emphasis on socioemotional and intellectual development. Impact of family, peer, and teacher relations on adolescent adjustment in and out of school.

### Reflection and Inquiry in Teaching 804A

Special Education II: Mild Impairment Spring. 3(2-3) P:NM: (CEP 801A and CEP 802A and TE 501) 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. C: CEP 502A concurrently, CEP 502B concurrently, CEP 803A concurrently.

Collecting, analyzing and interpreting data related to the teaching and learning of literacy for students with learning or emotional impairments. Appraising and reporting results of inquiry. Developing and studying learning communities which facilitate learning for mildly impaired students.

### 804C Reflection and Inquiry in Teaching

Special Education II: Deaf Education Spring. 3(2-3) P:NM: (CEP 801A and CEP 802C and TE 501) R: Open only to to students admitted to the teacher certification program in deaf education or to master's students in the Special Education ma jor. Not open to students with credit in CEP 804A or CEP 804D. C: CEP 502C concurrently, CEP 803C concurrently.

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.

### Reflection and Inquiry in Teaching 804D

Special Education II: Visual Impairment Spring. 3(2-3) P:NM: (CEP 801A and CEP 802D and TE 501) 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 804C. C: CEP 502D concurrently, CEP 503D concurrently.

Collecting, analyzing and interpreting data on 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 use of low vision.

**Learning Mathematics**Fall. 3(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.

**Learning of Science** Fall. 3(3-0) R: Open only to graduate students in College of Education.

Psychological and epistemological perspectives underlying various approaches to science education. Instructional implications emerging from these per-

## **Proseminar in Instructional Development** and Educational Technology

Fall. 3(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(3-0) P:NM: (CEP 807) R: Open only to master's students in the Educational Technology and Instructional Design major or with departmental permission.

Goals, objectives, task description and analysis in instructional design. Evaluation as applied primarily to course and unit design.

## Instructional Design II

Spring. 3(3-0) P:M: (CEP 808) R: Open only to master's students in the Educational Technology and Instructional Design major or with departmental permission.

Principles of instructional design applied to lessons. Explanation, information processing, transfer, demonstration, practice, mental set motivation. Exposition vs. discovery of facts, concepts, principles and

## Teaching for Understanding with 810

Computers
Fall, Spring, Summer. 3(3-0) P:NM: (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.

# Adapting Innovative Technologies to

Fall, Spring. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. P:NM: (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.

## **Applying Instructional Development and** 812 Educational Technology for Clients Spring. 3(3-0) P:NM: (CEP 807) Working with clients in using the instructional devel-

opment life cycle model to analyze, design, develop, and maintaining courses and instructional systems. Topics include hands-on project, consulting, writing and funding proposals, and project management.

## Improving Student Problem Solving Skills through Technology Fall, Spring. 3(3-0) P:NM: (CEP 416)

General problem-solving literature. Potential of technology in problem solving. Approaches to integrating technology into the teaching of problemsolving 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 dev elopment. Implications for teaching and learning.

#### 818 Instructional Design III

Spring. 3(3-0) P:NM: (CEP 808 and CEP 809)

Creation, implementation and evaluation of alternative instructional designs.

### 819 Proseminar in Psychological Bases of Literacy Instruction

Spring. 3(3-0) P:NM: (TE 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.

### 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.

# 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.

### 826 **Evaluation of Educational Programs and Policies**

3(3-0) Interdepartmental Spring. Teacher Education, P:NM: (CEP 822)

Qualitative and quantitative methods to assess the effectiveness of public policies and resulting educational programs. Theory and practice of program evaluation.

### 844 Advanced Studies in American Sign Language

Fall. 1(1-1) P:NM: (CEP 442B)

Sociocultural and linguistic issues relating to the educational use of American Sign Language with

### 854B Special Education Internship: Teaching Children and Youth with Visual Impairments

Fall, Spring. 1 to 15 credits. A student may earn a maximum of 15 credits in all enrollments for this course. P:NM: (CEP 802D and CEP 803D and CEP 804D and CEP 443B) R: Open only to graduate students in the Special Education major. C: CEP 847B concurrently, CEP 848B concurrently.

Supervised student teaching in elementary and secondary education programs for blind and visually impaired children.

## Special Education Internship: Teaching Deaf-Blind Children and Youth

Fall, Spring. 1 to 15 credits. A student may earn a maximum of 15 credits in all enrollments for this course. P:NM: (CEP 456A) R: Open only to graduate students in the Special Education major.

Supervised student teaching in elementary and secondary education programs for deaf-blind stu-

#### 857B Techniques of Orientation and Mobility I

Fall, Spring. 3(1-4) P:NM: (CEP 457) R: Open only to master's students in the Special Education major whose area of emphasis is orientation and mobility or orientation and mobility teaching.

Methods of orientation and navigation related to blindness. Structure, function, and problems with the proprioceptive system in relation to orientation and

### 857C Techniques of Orientation and Mobility II

Fall, Spring. 3(1-4) P:M: (CEP 457) R: Open only to master's students in the Special Education major whose area of emphasis is orientation and mobility or orientation and mobility teaching.

Advanced techniques and methods for negotiating the range of outdoor environments from rural and residential to complex business areas. Simulations under blindfold and low vision conditions.

## Special Education Law

Fall of even years. 3(3-0) Interdepartmental with Educational Administration. R: 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.

# Independent Study: Education of Deaf

**Learners**Fall, Spring. 1 to 6 credits. A student may earn a maximum of 9 credits in all enrollments for this course. R: Open only to graduate students in College of Education.

Directed individual study related to educating stu-

dents who are deaf or hard of hearing.

## Stress Management

Fall, Spring. 3(3-0)

Physiological and psychological foundations of the human stress response. Therapeutic approaches to stress management.

## 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.

### 861 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.

## 862 Introduction to Individual and Group Counseling Fall, Spring. 3(3-0) R: Open only to gradu-

ate 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:NM: (CEP 861 and 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.

### 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.

### 865 Assessment and Research in Counseling Spring. 3(3-0) P:M: (CEP 821 and CEP 861 and CEP 862)

Supervised training and practice in mental health testing assessment, and use of the DSM-IV.

# Foundations of Rehabilitation

Counseling
Fall. 3(3-0) R: Open only to master's students in the Rehabilitation Counseling ma-

History, philosophy, values, legislation, policy and practice of the field of rehabilitative counseling.

### Medical and Psychological Aspects of 871 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.

## 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 work-place and to achieve vocational outcomes. Assisting employers in accommodating and retaining employees with disabilities.

### **Habilitation Strategies** 874

Summer. 3(3-0)

Historical, legislative, theoretical, and operational aspects of the transition from school to work for youth with congenital, developmental, and other sev ere 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:NM: (CEP 870 and CEP 893A or 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:NM: (CEP 821 and 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(3-0) P:NM: (CEP 821) R: Open only to Ed.S. or Ph.D. students in the School Psychology or Counseling Psychology ma-

Measurement of intelligence. Observation, practice, supervision, interpretation, and report writing in an educational setting.

## Personality Assessment

Spring. 3(3-0) P:NM: (CEP 821 and CEP 885 and PSY 475) R: Open only to Ed.S. or Ph.D. students in the School Psychology major.

Projective and objective personality assessment of children and adolescents in school.

# 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 Educa-

# Psychology of Classroom Discipline Summer. 3(3-0) R: Teaching experience.

Theories of and strategies for the resolution of classroom discipline problems.

#### 884 Roles and Functions of School

Psychologists: Focus on Consultation Spring of odd years. 3(3-0) P:NM: (CEP 801 and CEP 821 and CEP 880) R: Open only to Ed.S. or Ph.D. students in the School Psychology major.

Multiple roles of school psychologists from a systems perspective. Emphasis on consultation strat egies for working with schools and families. Historical, legal, ethical, and cultural issues.

## **Behavior Disorders in Children**

Fall. 3(3-0) P:NM: 12 graduate credits in Educational Psychology or related area. Not open to students with credit in PSY 853 or

Characteristics, causes, and treatment of schoolrelated behavior disorders in children within a developmental framework.

### 886 **Psychological Assessment and** Intervention I

Fall. 3(2-3) R: Open only to Ed.S. or Ph.D. students in the School Psychology major.

Conceptual and legal definitions of high-incidence disabilities. Psychological and educational assessments and interventions for learning, behavioral, and developmental problems of children and adolescents. Problem-solving assessment model. Informal and formal assessment methods. Eligibility determinations for special education.

## Psychological Assessment and Intervention II

Spring. 3(2-3) P:M: (CEP 886) R: Open only to Ed.S. or Ph.D. students in the School Psychology major.

Assessment and remediation of learning and devdopmental problems of children and adolescents. Major methods of assessment and remediation of learning problems. Assessments and interventions for low-incidence disabilities.

## Theories of Child Psychotherapy

Spring. 3(2-3) P:M: (CEP 885) R: Open only to Ed.S. or Ph.D. students in the School Psychology major.

Models of psychotherapy for children and adolescents. Empirically -supported, brief models appropriate for school and community -based practice. Critical appraisal of models, methods, and selected

#### 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.

### Rehabilitation Counseling Internship 893A

Fall, Spring, Summer. 3 to 9 credits. A student may earn a maximum of 9 credits in all enrollments for this course. P:NM: (CEP 894A) R: Open only to master's students in the Rehabilitation Counseling major.

Supervised internship experience in community rehabilitation settings.

## Internship in School Psychology

Fall, Spring. 3(3-20) A student may earn a maximum of 15 credits in all enrollments for this course. P:NM: (CEP 894B) R: Open only to Ed.S. or Ph.D. students in the School Psychology major.

Supervised experience in the practice of school psychology. Diagnostics, consultation and interven-

### 893C

**Counseling Internship**Spring. 3 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course. P:M: (CEP 894C)

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.

## Special Education Internship: Teaching Deaf Children and Youth

Fall, Spring. 1 to 15 credits. A student may earn a maximum of 15 credits in all enrollments for this course. P:NM: (CEP 440 and CEP 442B and CEP 801A and CEP 802C) R: Open only to graduate students in the Special Education major.

Supervised student teaching in elementary and secondary programs for deaf or hearing impaired students

### 893F Special Education Internship: Teaching **Children with Learning Disabilities**

Fall, Spring. 4 to 9 credits. A student may earn a maximum of 9 credits in all enrollments for this course. P:NM: (CEP 803A) R: Open only to graduate students in the Special Education major.

Supervised student teaching in elementary and secondary education programs for learning disabled students.

### 893G Special Education Internship: Teaching Children with Emotional Impairments

Fall, Spring. 4 to 9 credits. A student may earn a maximum of 9 credits in all enrollments for this course, P:NM: (CEP 803A) R: Open only to graduate students in the Special Education major.

Supervised student teaching in elementary and secondary programs for emotionally impaired stu-

## **Rehabilitation Counseling Practicum**

Fall, Summer. 6(3-12) P:NM: (CEP 862) R: Open only to master's students in the Rehabilitation Counseling major.

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:NM: (CEP 885) R: Open only to graduate students in the School Psychology major. C: CEP 884 concurrently.

Administration and interpretation of individual scales. Report writing. Consultation and team decision making.

## **Counseling Practicum**

Fall, Spring. 6(3-12) P:NM: (CEP 863) R: Open only to master's students in Counsel-

Supervised counseling experience in schools or agency. Analysis and critique of these experiences through group and individual consultation with the instructor.

## 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:NM: (CEP 800 and CEP 801) R: Open only to graduate students in the Educational Psychology major. C: CEP 884 concurrently.

Practicum in educational, business, or consulting settings. Possible projects include designing, devdoping, implementing, or evaluating instructional programs; conducting research; or working with practitioners to incorporate innovative instructional technologies.

## Special Education Practicum: Children and Youth in Orientation and Mobility

Fall, Spring. 1 to 10 credits. A student may earn a maximum of 10 credits in all enrollments for this course. P:NM: (CEP 857B and CEP 857C) R: Open only to graduate students in the Special Education major.

Supervised field experience in teaching independent travel to visually impaired and blind students in elementary and secondary education programs.

## Special Education Practicum: Children and Youth with Learning Disabilities

Fall, Spring. 1 to 10 credits. A student may earn a maximum of 10 credits in all enrollments for this course. R: Open only to graduate students in the Special Education major. C: CEP 802A concurrently, CEP 804A concurrently.

Supervised field experience with students who have learning disabilities. Planning, implementing, and critiquing instruction in elementary and secondary school settings.

# Special Education Practicum: Children

and Youth with Emotional Impairments
Fall, Spring. 1 to 10 credits. A student may earn a maximum of 10 credits in all enrollments for this course. R: Open only to graduate students in the Special Education maior

Supervised field experience with students who have emotional impairments. Planning, implementing, and critiquing instruction in elementary and secondary school settings.

### 8941 Special Education Practicum: Children and Youth in Deaf Education

Fall, Spring. 1 to 10 credits. A student may earn a maximum of 10 credits in all enrollments for this course. P:NM: (CEP 440 or concurrently) R: Open only to graduate students in the Special Education major.

Supervised field experience with deaf and hard-ofhearing students. Planning, implementing, and critiquing instruction in elementary and secondary school settings.

### Research Ethics 895

Interdepartmental with Summer. 1(1-0) Kinesiology; Teacher Education; Educational Administration; Sociology; Romance Languages. Administered by Department of Kinesiology. R: Open only to graduate students in the Department of Counseling, Educational Psychology and Special Education or Department of Educational Administration or Department of Kinesiology or Department of Teacher Education.

Identifying and resolving ethical problems in research, including issues related to collegial interactions; authorship, publication, and reviewing practices; data management; ownership of data and intellectual property; conflicts of interest; protection of human and animal subjects; and lab safety and compliance.

#### Master's Thesis Research 899

Fall, Spring, Summer. 1 to 9 credits. A student may earn a maximum of 15 credits in all enrollments for this course, R: Open only to master's students in the Department of Counseling, Educational Psychology and Special Education.

Master's thesis research.

### Proseminar in Learning, Technology, and 900

Fall. 3(3-0) 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

### 901A Proseminar in Learning and

**Development** Spring. 3(3-0) P:M: (CEP 900) R: Open only to Ph.D. students in Counseling, Educational Psychology and Special Education. SA: CFP 901

Historical theoretical, empirical, methodological, and philosophical issues. Research literature on learning and development in educational settings.

## Proseminar in Technology and Education

Spring. 3(3-0) P:M: (CEP 900) R: Open only to Ph.D. students in Learning, Technology, and Culture.

Historical, theoretical, empirical, methodological and philosophical issues. Research literature on technology in education.

### 902 The Psychology of Learning School Subjects

Spring. 3(3-0) 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.

## Cognitive Development across the Lifespan

Fall. 3(3-0) P:NM: (CEP 801) 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:NM: (CEP 801) R: Open only to doctoral students in the College of Education

Social and emotional aspects of human development. Relationship between social-emotional devdopment and learning in school and other settings.

### 905 Cultural Perspectives on Learning and Development

Spring of even years. 3(3-0) P:NM: (CEP 800 and CEP 801) R: Open only to graduate students in the College of Education.

Theories and research in cultural psychology. Relations among culture, learning, and human dev elopment in school and other settings such as family, community, and work. Implications for educational

#### 907 **Psychological Study of Teaching**

Fall of odd years. 3(3-0) 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's decision-making, learning from experience and developmental changes.

Cognition and Technology Fall. 3(3-0) R: Open only to doctoral students in College of Education.

Interaction of computer technologies and cognitive theories. Learning with new technologies; how technology influences theories of mind. How theories of cognition may guide the development of new technologies.

### 910 Motivation and Learning

Spring. 3(3-0) R: Open only to doctoral students in the College of Education.

Enduring questions about motivation and learning. Role of skill versus will in motivation. Higher-order thinking in learning.

## 911 Intellectual History of Educational **Psychology** Fall. 3(3-0) R: Open only to doctoral stu-

dents in the College of Education.

Ideas and perspectives on learning and development that have shaped educational psychology. Learning of school subject matters. Learning and development in relation to educational settings.

## Psychology and Pedagogy of Literacy

Fall of even years. 3(3-0) 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 instruc-

### 913 Psychology and Pedagogy of Mathematics

Fall of odd years. 3(3-0) Interdepartmental with Teacher Education. P:NM: (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.

### Learning Science with Technology: 914 **Theoretical Perspectives**

Spring of odd years. 3(3-0) Interdepartmental with Teacher Education.

Learning and teaching of science with the Internet and other technology-mediated environments and tools. Theories and research on the learning of science. Analysis of on-line and face-to-face science learning environments.

## Language, Literacy and Learning

Spring of even years. 3(3-0) Interdepartmental with Teacher Education. 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.

#### 916 Technology and K-12 Education

Spring. 3(3-0) R: Open only to doctoral students in the College of Education.

Technology for teaching and learning in K12 settings. Historically important and current technology rich innovations in terms of learning, teaching, curriculum, and social contexts of learning.

### 917

**Design of Media for Learning**Fall of even years. 3(3-0) R: Open only to doctoral students in the College of Educa-

Design knowledge as it intersects education, psychology, communications, engineering, media theory, art and aesthetics. Research methodologies for understanding design. Design of educational media.

### Theories of School-Based Psychological 918 Interventions

Spring. 3(2-3) P:M: (CEP 884) R: Open only to Ed.S. or Ph.D. students in the School Psychology major.

Theories and models of school-based interventions. Theories of organization and purposes of schooling in society. Theories of prevention of psychopathology and promotion of children's competence in school settings.

### **Current Research and Issues in School** 919 Psychology

Spring of even years. 3(3-0) R: Open only to Ed.S. or Ph.D. students in the School Psychology major.

Rotating topics include role function, diagnosis and eligibility concerns, innovative educational and behavioral interventions.

#### 920 **Educational Assessment**

Fall. 3(3-0) R: Open only to doctoral students in College of Education, College of Human Ecology, and College of Social Sci-

Teacher-made and standardized techniques for measuring achievement. Topics include grading, policy issues, affective assessment, and performance measurement

## 921

Psychometric Theory I Spring. 3(3-0) P:NM: (CEP 821 or CEP 920) and (CEP 930)

Classical test theory. Generalizability theory. Item response theory. Reliability and validity of criterion referenced tests. Differential item functioning.

### 922 Psychometric Theory II

Fall of odd years. 3(3-0) P:NM: (CEP 921) and 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

## 923

Item Response Theory
Spring of odd years. 3(3-0) P:NM: (CEP 921 and CEP 933)

Item response theory applied to test construction, scaling, and equating tests and their items.

### 930 **Educational Inquiry**

Fall, Spring. 3(3-0)

Multiple sources of inquiry. Critical assessment of common assumptions about research. Relationship between data and theory. Objectivity, validity, and causal inference across research traditions. Research ethics. Relationship among researcher, researched, and audience. Question formation.

### 931 Qualitative Methods in Educational

Research
Fall, 4(4-0) Interdepartmental with Teacher Education; Educational Administration. Administered by Department of Teacher Education. P:NM: (CEP 930) R: Open only to doctoral students. Approval of department.

Multiple traditions of qualitative research in education. Approaches to theory, research questions and design, data collection and analysis, and reporting. Ethical issues. Appraising qualitative research.

### 932 **Quantitative Methods in Educational** Research I

Spring. 3(3-0) P:NM: (CEP 930 or CEP 822 or KIN 871) or a course in introductory research methods. RB: College algebra. Students from the College of Agriculture and Natural Resources and College of Human Ecology should be enrolled in programs with a focus on education. R: Open only to graduate students in the College of Education, College of Agriculture and Natural Resources, and College of Human Ecology.

Techniques in data collection and data analysis used in educational and psychological research. Graphical and tabular representation of data. Concepts of statistical inference in educational contexts.

### 933 **Quantitative Methods in Educational**

Fall, Spring. 3(3-0) P:M: (CEP 932) RB: College algebra. Students from the College of Agriculture and Natural Resources and College of Human Ecology should be enrolled in programs with a focus on education. R: Open only to graduate students in the College of Education, College of Agriculture and Natural Resources, and College of Human Ecology.

Advanced 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 applications.

## Multivariate Data Analysis I

Fall. 4(4-0) P:NM: (CEP 933) 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.

### 935 **Advanced Topics in Multivariate Data** Analysis II

Spring of even years. 4(4-0) P:NM: (CEP 934) 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.

## Synthesis of Educational Research

Spring of odd years. 4(4-0) P:NM: (CEP 933) R: Open only to Ph.D. students.

Synthesis and meta-analysis in educational re-

### Survey Research Methods in Education 937

Spring of even years. 4(3-3) P:NM: (CEP 933) R: Open only to graduate students in the College of Agriculture and Natural Resources or College of Education or College of Human Ecology.

Principles and techniques of survey research methodology. Alternativ e sampling designs. Development of scales and questionnaires. Data analysis procedures. Emphasis on applications in education

## Policy Analysis of Trends in Special Education

Spring of odd years. 3(3-0) R: Open only to doctoral students in the Special Education major or approval of department.

Economic, social, legal and organizational trends in special education within the theoretical framework of organizational change.

### **Academic Issues in Special Education** for At-Risk Students

Fall of odd years. 3(3-0) R: Open only to doctoral students in the Special Education maior.

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 stu-

## **Educational Perspectives on Low-**Incidence Populations in Special Education

Fall of even 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 years. 3(3-0) R: Open only to doctoral students in the Special Education major.

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 d-

### **Practicum in Counselor Education** 944D

Fall, Spring. 3(1-6) A student may earn a maximum of 15 credits in all enrollments for this course. R: Open only to Ph.D. students in the Counselor Education or Rehabilitation Counselor Education major.

Theory and supervised teaching in educating and supervising prospective counselors. Approaches, models, and strategies.

### 949 Critical Issues in Special Education

(MTC)
Fall of even years. 3(3-0) P:NM: (CEP 901) R: Open only to doctoral students in the Special Education major.

Topics in special education, including cognition and sensory impairments, literacy for at-risk students, program design, small sample research, and staff development.

## Proseminar in Counseling Psychology Fall. 3(3-0) R: Open only to Ph.D. students

in the Counseling Psychology major.
Historical development of counseling psychology as a professional discipline. Traditional and contemporary issues in theory, research, practice and training.

## 951

**Technology, Society, and Culture**Fall. 3(3-0) R: Open only to doctoral students.

Interactions among technology, society, and culture, with special attention to education. Technology adoption as a social phenomenon. Effects of technology on communication, social interaction, and sharing of knowledge. Effects of systems and practices on technology.

### 952 Technology for Teaching and Learning in

Higher Education
Spring. 3(3-0) R: Open only to doctoral students.

Technology for support of teaching and learning in higher educational settings. Theories, research, and design of on-line learning. Electronic portfolios. Libraries in the age of the Internet.

### **Teachers and Technology** 953

Fall of even years. 3(3-0) R: Open only to doctoral students in the College of Education.

Impact of new technologies on teacher knowledge and practices of teaching. Teachers' use of technology, teacher knowledge, teacher education, and changing roles of teachers.

## Research Design and Methods for Learning, Technology, and Culture

Fall. 3(3-0) P:M: (CEP 930) and (CEP 932 or TE 931) R: Open only to doctoral students in the College of Education.

Research design and methods for studying learning, development, technology, and culture in educational contexts: classrooms, computer-mediated environments, homes, communities, and workplaces.

### 956 Mind, Media, and Learning

Spring of even years. 3(3-0) R: Open only to doctoral students.

Philosophy, psychology, and sociology of new media. Media effects and learning with media. Issues of gender, identity, culture in technologically mediated environments, including Internet, virtual reality, computer games, simulations, artificial intelligence (AI) systems, and pedagogical agents.

#### Learning in Complex Domains 957

Fall. 3(3-0) R: Open only to doctoral students.

Problems of learning in complex and ill-structured domains. Real-world knowledge application. Learning difficult subject matter. Situated, collaborative, and case-based approaches to learning in complex domains. Technologies for enabling new kinds of learning.

### Theoretical Foundations of Counseling 960 **Psychology**

Fall. 3(3-0) R: Open only to Ed.S. or Ph.D. students in the Counseling Psychology or Rehabilitation Counselor Education or School Psychology or Counselor Education

Theoretical models of counseling, personality, and behavior change. Research literature on the process and outcomes of counseling. Selected professional

### 961 Perspectives on Diversity in Counseling

Psychology Spring. 4(3-4) R: Open only to Ed.S. or Ph.D. students in the Counseling Psychology or Counselor Education or Rehabilitation Counselor Education or School Psychology major.

Cultural, gender, and disability dynamics as they affect human functioning and counseling practices. Strategies and techniques for multicultural perspectives in counseling.

### **Psychology of Career Development** 962

Spring. 3(3-0) P:NM: (CEP 864) R: Open only to Ph.D. students in the Counseling Psychology or Counselor Education or Rehabilitation Counselor Education major.

Theories of career choice and development. Psychological processes underlying vocational behav-

### **Ethics in Counseling Psychology** 963

Spring. 3(3-0) R: Open only to Ed.S. or Ph.D. students in the Counseling Psychology or Counselor Education or Rehabilitation Counselor Education or School Psychology major.

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.

### **Counseling Foundations**

Fall of odd years. 3(3-0) P:NM: (CEP 960 or concurrently) R: Open only to Ph.D. students in the Counselor Education or Rehabilitation Counselor Education major.

Foundations and practice of rehabilitation and school counseling. Pre-service preparation issues. Professional and policy implications.

### 965 Current Research and Issues in

Counseling
Fall of even years. 3(3-0) P:NM: (CEP 964) R: Open only to Ph.D. students in the Counselor Education or Rehabilitation Counselor Education major.

Practice and research issues in rehabilitation counseling and school counseling.

## Psychological Diagnosis and Assessment I

Fall. 3(3-0) P:NM: (CEP 960) R: Open only to Ph.D. students in the Counseling Psychology major.

Principles of psychological testing and measurement. Principles of clinical interviewing. Cognitive and intellectual assessment. Career development and choice assessment.

# Psychological Diagnosis and

Assessment II Spring. 3(3-0) P:NM: (CEP 966) R: Open only to Ph.D. students in the Counseling Psychology major. C: CEP 994B concurrently.

Diagnostic categories, mental status examination, differential diagnosis, and objective and projective psychological assessment.

## Research Methods in Counseling **Psychology**

Fall. 3(3-0) P:NM: (CEP 933) R: Open only to Ph.D. students in the Counseling Psychology or Rehabilitation Counselor Education or Counselor Education major.

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:NM: (CEP 967 and CEP 994B) R: Open only to Ph.D. students in the Counseling Psychology major.

Theoretical, empirical and practical aspects of the supervisory relationship. Process and outcome variables

### 970 **Counseling Across Educational Settings**

Spring of even years. 3(3-2) P:NM: (CEP 960 and CEP 961 and CEP 962) R: Open only to doctoral students in the Counseling Psychology or Counselor Education or Rehabilitation Counselor Education or School Psychology major. C: CEP 963 concurrently.

Development of counseling programs and delivery of counseling services across multiple educational settings: elementary and secondary schools, alternative educational sites, community colleges, and universities

## **Teaching Practicum in Counselor** Education

Fall of even years. 3(3-2) P:M: (CEP 970) R: Open only to doctoral students in the Counseling Psychology or Counselor Education or Rehabilitation Counselor Education or School Psychology major.

Development of personalized teaching portfolios. Preparation of training modules that address critical issues in counseling and teaching evaluation.

### 975 Psychological Assessment of Cognitive Dysfunction

Spring of even years. 3(3-0) P:NM: (CEP 966 or CEP 880) R: Open only to doctoral or Educational Specialist students in the Department of Counseling, Educational Psychology and Special Education.

Human neuroanatomy and the functional organization of the central nervous system. Cognitive and behavioral sequelae of neurological disabilities. Neuropsychological assessment of intellect, memory, learning abilities, visuospatial functioning, and problem solving in children and adults.

## 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 educa-

#### 990 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.

# Special Topics in Learning, Technology

Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 9 credits in all enrollments for this course. R: Open only to doctoral students in the College of Educa-

Special topics in learning, technology, and culture in

### 991B **Special Topics in Educational Statistics**

and Research Design
Fall, Spring. 4(4-0) A student may earn a
maximum of 16 credits in all enrollments for this course. P:NM: (CEP 933) R: Open only to Ph.D. students.

Special topics in educational statistics and research design.

Counseling Psychology Practicum I Fall. 3(0-9) P:NM: (CEP 960) R: Open only to Ph.D. students in the Counseling Psychology major.

Supervised practice in counseling, assessment, diagnosis and related professional activities within an agency providing counseling and psychological services

### 994B

Counseling Psychology Practicum II Spring. 3(0-9) P:M: (CEP 994A) R: Open only to Ph.D. students in the Counseling Psychology major.

Intermediate supervised practice in counseling, assessment, diagnosis and related professional activities within an agency providing counseling and psychological services.

# **Advanced Practicum in Counseling**

Psychology Spring. 3(0-9) P:M: (CEP 994B) R: Open only to Ph.D. students in the Counseling Psychology major.

Client conceptualization, assessment, intervention design, ethical and professional development issues, supervision, and consultation.

### 995 Practicum in Research Design and Data Analysis

Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 3 credits in all enrollments for this course. P:NM: (CEP 933) R: Open only to doctoral students in the College of Education.

Supervised research practicum, Design, execution, analysis, presentation, critique, and revision of research projects.

## **Doctoral Dissertation Research**

Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 54 credits in all enrollments for this course. R: Open only to doctoral students in the Department of Counseling, Educational Psychology and Special Education.

Doctoral dissertation research.

### CRIMINAL JUSTICE CJ

## **School of Criminal Justice College of Social Science**

## Introduction to Criminal Justice

Fall, Spring. 4(4-0)

Description and analysis of agencies and processes involved in administration of justice in the United

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

Techniques of crime scene search. Collection and preservation of physical evidence. Class and individual scientific tests. Rules of evidence governing admissibility of physical evidence. Expert testimony.

### 220

**Criminology**Fall, Spring. 4(4-0) Interdepartmental with Sociology. P:NM: (CJ 110 or SOC 100) R: Open only to students in the Criminal Justice or Sociology major or approval of school.

Introduction to the socio-legal foundation of crime. Crime typology and measurement procedures. Theory and public policy. Societal responses to crime and criminals.

## Methods of Criminal Justice Research

Fall, Spring. 4(4-0) P:NM: (CJ 220) R: Not open to freshmen. Open only to students in the School of Criminal Justice.

design, analysis and ethical principles in criminal justice research. Indicators of crime and its

### Criminal Justice Professionals

Fall. 2(1-2) P:M: (CJ 110 and CJ 220) P:NM: and one additional CJ course. R: Open only to sophomores or juniors or seniors in the School of Criminal Justice.

Operation of criminal justice organizations and agencies. Development and structure of criminal justice professions. Career planning and development. Employment practices. Ethics.

## **Police Process**

Fall, Spring. 4(4-0) P:NM: (CJ 292) R: Open only to juniors or seniors in the Criminal Jus-

Roles, responsibilities, issues, and trends pertinent to contemporary law enforcement organizations in contemporary society.

## Juvenile Justice Process

Fall, Spring. 4(4-0) P:M: (CJ 220) R: Open only to juniors or seniors in the Criminal Justice major.

The juvenile justice system and law. Theories of juvenile delinquency and deviance. Sociological, psychological, and anthropological perspectives.

## **Corrections Process**

Fall, Spring. 4(4-0) P:NM: (CJ 292) R: Open only to juniors or seniors in the Criminal Justice major.

Historical and contemporary views of offender management and treatment. Corrections system operation. Effects of institutionalization. Alternatives to incarceration.

### Criminal Law Process 375

Fall, Spring. 4(4-0) P:NM: (CJ 292) RB: (CJ 110) R: Open only to juniors or seniors.

Administration of criminal law. Investigation, prosecution, adjudication, and sentencing. Constitutional safeguards and legal controls on official action.

Introduction to Private Security
Fall. 3(3-0) R: Not open to freshmen or 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.

## **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 and approval of school.

Faculty -supervised group or individual study dealing with a phase of the criminal justice system.

### 421

Minorities, Crime, and Social Policy Spring of odd years. 3(3-0) P:M: (CJ 110 or SOC 100) R: Open only to juniors or seniors

A socio-historical analysis of the effects of race and ethnicity on legitimate social opportunities, criminal behavior, victimization, and differential judicial processing. Analysis of the impact of assimilation and acculturation on criminal behavior, victimization, and criminal justice processes.

### **Comparative and Historical Criminal** 422 Justice

Fall of odd years. 3(3-0) P:NM: (CJ 110) R: Open only to juniors or seniors in the Criminal Justice major.

Comparative study of criminal justice systems. Theories, types, and effects of intervention.

### 425 **Women and Criminal Justice**

Spring of even years. 3(3-0) Interdepartmental with Women's Studies. P:NM: (CJ 220 or WS 201) R: Open only to juniors or seniors

Theories on women's victimization and criminality. Women's experiences as victims, offenders, and criminal justice employees. Laws and their effects on the rights of women in the criminal justice sys-

Community Policing
Spring. 3(3-0) P:NM: (CJ 335) R: Open only to juniors or seniors in the Criminal Justice maior.

Community policing philosophy, applications, issues, and contemporary research. Community policing

### 433 Law Enforcement Intelligence Operations Spring. 3(3-0) P:NM: (CJ 335) R: Open only

to juniors or seniors in the Criminal Justice maior.

Law enforcement intelligence as an analytic tool for case development and resource allocation. Historical, ethical, legal, and operational issues affecting current practice.

## Police Administration (W)

Fall. 3(3-0) P:M: Completion of Tier I writing requirement. P:NM: (CJ 335) R: Open only to seniors in the Criminal Justice major.

Organizational theory, leadership, communications, and labor relations in police administration. Historical and legal perspectives.

#### 435 Investigation Procedures

Fall. 3(3-0) P:NM: (CJ 375) R: Open only to seniors in the Criminal Justice major.

Laws of evidence controlling investigative procedures. Crime scene concerns. Multi-agency investigation.

### 455 **Delinquency and Treatment Approaches** Spring. 3(3-0) P:NM: (CJ 355) R: Open only to juniors or seniors in the Criminal Justice

Investigation and evaluation of delinquency. Prevenprograms and treatment approaches. Implementation and assessments of correctional and community intervention strategies in agency