

**Descriptions — Computer Science  
of  
Courses**

- 835. Analysis of Graph Algorithms**  
*Fall, 3(3-0) MTH 334, CPS 322.*  
Basic concepts in graphs, fundamental graph algorithms: shortest paths, minimum spanning trees, network flow, connectivities, matching, their limitations and complexities, other graph algorithms, NP-complete graph problems.
- 841. Artificial Intelligence I**  
*Fall, Winter, 4(4-0) CPS 471, STT 441.*  
Knowledge representations, heuristics, theory of problem solving, expert systems, adaptive systems, natural language understanding, automatic theorem proving, vision systems.
- 842. Artificial Intelligence II**  
*Spring, 3(3-0) CPS 841.*  
Representation of inexact knowledge, learning systems, description of intelligent systems, case studies, term project.
- 876. Performance Measurement Techniques**  
*Fall, 3(3-0) CPS 322, CPS 413, STT 441.*  
Performance evaluations on computer systems, evaluation of the central processor. Systems analysis, simulation, programmed measurement, and instrumental measurement techniques. Case studies.
- 881. Operating Systems Theory I**  
*Winter, 3(3-0) CPS 313, STT 441.*  
Control of concurrent processes. Deterministic and probabilistic models of processor scheduling. Introduction to auxiliary and buffer storage models.
- 882. Operating Systems Theory II**  
*Spring, 3(3-0) CPS 881.*  
Auxiliary and buffer storage models. Storage allocation in paging systems. Multiprogrammed memory management.
- 884. Large Data Base Theory**  
*Summer, 3(3-0) CPS 413, CPS 400 or CPS 452 or approval of department.*  
Data base management constituent parts; data definition, data manipulation, data retrieval and report generation. Hierarchical, network and relational data base models. Schemas, subschemas and access methods. Analytic and theoretical treatment.
- 890. Special Topics**  
*Fall, Winter, Spring, Summer, 2 to 4 credits. May reenroll for a maximum of 10 credits. Approval of department.*  
Special topics in computer science of current interest and importance.
- 899. Master's Thesis Research**  
*Fall, Winter, Spring, Summer, Variable credit. Approval of department.*
- 906. Advances in Pattern Recognition**  
*Fall, 3(3-0) CPS 805, CPS 806, CPS 822.*  
Current research topics in pattern recognition, exploratory data analysis, syntactic pattern recognition and digital image processing; practical applications of pattern recognition methodology.
- 911. General Automata Theory I**  
*Fall of odd-numbered years, 3(3-0) CPS 423 or E E 827 or approval of department. Interdepartmental with the Department of Electrical Engineering.*  
Characterization of machines and programs as automata; mathematical decomposition of finite automata.

- 921. Multiprocessors and Parallel Processing**  
*Fall, 3(3-0) CPS 812, CPS 815. Interdepartmental with the Department of Electrical Engineering.*  
Massively parallel processor, parallel memory, interconnection network, tightly and loosely compiled multiprocessors, message-passing model, shared-memory model, operating systems, performance, parallel languages and algorithms.
- 922. Advanced Computer Systems**  
*Winter, 3(3-0) CPS 921, E E 813. Interdepartmental with the Department of Electrical Engineering.*  
VLSI and WSI architectures, mapping algorithms to architectures, functional programming, dataflow computer, concurrent symbolic processing and logical programming, computer architecture for artificial intelligence, recent advances in computer systems.
- 999. Doctoral Dissertation Research**  
*Fall, Winter, Spring, Summer, Variable credit. Approval of department.*

**COUNSELING, EDUCATIONAL  
PSYCHOLOGY AND  
SPECIAL EDUCATION CEP**

**College of Education**

- 400. Classroom Testing and Grading**  
*Winter, Summer, 3(3-0) T E 200 or T E 200A or T E 200B or T E 200C or approval of department.*  
Construction, use, and evaluation of teacher-made classroom tests, objective and essay, in elementary schools, secondary schools, and colleges. Statistical analysis of test scores and item responses. Grading problems.
- 401. Standardized Tests and Testing Programs**  
*Fall, Spring, Summer, 3(3-0) Approval of department.*  
An overview of standardized tests and sources of information about them. Selection and uses of standardized tests. Interpretation of standardized test scores. Local and widescale testing programs.
- 411. School Learning**  
*Winter, Spring, Summer, 3(3-0) T E 200 or T E 200A or T E 200B or T E 200C.*  
Verbal learning, concept formation, problem solving and transfer with implications for teaching in schools.
- 412. Human Growth and Development**  
*Fall, Spring, 4(2-4) T E 200 or T E 200A or T E 200B or T E 200C.*  
Patterns in human growth and mental and emotional development of children 3 through 12 and adolescents 12 through 18; observation and participation in schools is an integral part of the course.
- 413. Mental Health of School Children**  
*Fall, Winter, 3(3-0) T E 200 or T E 200A or T E 200B or T E 200C.*  
Social and emotional adjustments of children. Emphasis on balancing factors favoring prevention and resolution of behavior difficulties and evaluation of school programs on basis of their contribution to mental health.

- 428B. Elementary Curriculum and Instruction for the Mentally Impaired**  
*Winter, 3(3-0) CEP 460; CEP 428B, CEP 460C, CEP 467K concurrently or approval of instructor.*  
Curriculum and instruction for elementary school-aged mentally impaired students.
- 428C. Secondary Curriculum and Instruction for the Mentally Impaired**  
*Winter, 3(3-0) CEP 460; CEP 428B, CEP 460C, CEP 467K concurrently or approval of instructor.*  
Curriculum and instruction for secondary school-aged mentally impaired students.
- 428D. Education of the Severely Impaired**  
*Fall, Spring, 3(3-0) CEP 460 or approval of department.*  
Procedures in teaching severely impaired children and youth.
- 431A. Educational Media in Instruction**  
*Fall, Winter, Spring, 3(3-0) Juniors.*  
Educational media for preservice and inservice teachers, and media specialists. Selection and utilization of flat pictures, slides, filmstrips, motion picture films, sound, models, radio, and television. Equipment operation acquired through self instructional laboratory. Field trips required.  
*Approved through Fall 1989.*
- 431B. Basic Educational Graphics**  
*Fall, 3(3-0) CEP 431A or approval of department.*  
A course for teachers and prospective teachers in the local production of visual instructional materials.  
*Approved through Fall 1989.*
- 434. Computers in the Classroom**  
*Fall, Winter, Spring, Summer, 3(3-0) Juniors.*  
How to teach computer literacy and programming in public schools. Computer aided instruction in the classroom. Applying instructional design principles to the selection, evaluation, modification, and development of computer courseware.
- 446A. Teaching Science with Microcomputers**  
*Winter, Summer, 3(3-0) CEP 434. Interdepartmental with and administered by the Department of Teacher Education.*  
Survey and critique of software available for science instruction; students adapt generic and create original microcomputer routines and/or teaching strategies for use in science teaching.
- 446B. Teaching Social Studies with Microcomputers**  
*Winter, Summer, 3(3-0) CEP 434. Interdepartmental with and administered by the Department of Teacher Education.*  
Survey and critique of software available for social studies instruction; students adapt generic and create original microcomputer routines for use in social studies teaching.
- 450. Interpersonal Process Recall**  
*(HCP 450.) Fall, Winter, Spring, 3(3-2) Approval of department.*  
Interpersonal communication focusing on one's own interpersonal style through self study of video-recorded interviews.

**Counseling, Educational Psychology and Special Education — Descriptions**  
of  
Courses

**460. Education of Exceptional Children**  
Fall, Spring, Summer. 3(3-0) Approval of department.

Characteristics and educational needs of students with handicapping conditions and exceptionalities. Special education programs and supportive community services.

**460B. Education Provisions for the Physically Impaired**  
Fall. 3(3-0) CEP 460.

Facilities, programs, trends, methods, materials and terminology in education of the physically impaired.

**460C. Psychoeducational Characteristics of the Mildly Impaired**

Winter. 3(3-0) CEP 460; CEP 428B, CEP 428C, CEP 467K concurrently or CEP 466B, CEP 466C, CEP 466K concurrently or approval of instructor.

Cognitive, affective, and social characteristics of the mildly impaired. Instructional practices that affect school learning and personal adjustment.

**460D. Classroom and Behavior Management in Special Education**  
Spring. 3(3-0) CEP 460.

Behavior management procedures for handicapped students in school settings. Specific methods for assessment, teaching, maintenance, and generalization of academic and non-academic behaviors.

**460I. Academic Assessment of Mildly Impaired**

Fall. 3(3-0) CEP 460, T E 310, T E 312, T E 315. Taken concurrently with CEP 460J, CEP 460K, CEP 460L.

Screening and placement procedures; terminology and interpretation of tests used for assessment of intelligence, aptitude, achievement, personality, and interests of the mildly impaired.

**460J. Academic Instruction of Mildly Impaired**

Fall. 3(3-0) CEP 460, T E 310, T E 312, T E 315. Taken concurrently with CEP 460I, CEP 460K, CEP 460L.

Education practices and remedial strategies for teaching academic skills to mildly impaired students.

**460K. Practicum: Special Education CORE**

Fall. 4(0-16) CEP 460, T E 310, T E 312, T E 315. Taken concurrently with CEP 460I, CEP 460J, CEP 460L.

Supervised practicum in an educational program for mildly impaired learners.

**460L. Core Seminar in Special Education**

Fall. 2(2-0) CEP 460, T E 310, T E 312, T E 315. Taken concurrently with CEP 460I, CEP 460J, CEP 460K.

Consideration of affective interactions with children, parents, other professionals, and self. Attention to sharing field experiences, examining belief-behavior consistency, teaching in the affective domain, and the parent-teacher partnership.

**463A. The Exceptional Child in the Regular Classroom**

Spring. 2(2-0) T E 201B.

Exceptional learners characteristics, and instructional strategies/curricular adaptations appropriate to such learners. Legislation mandating educational programs and affecting school practices will be reviewed.

**465A. Educational Provisions for Deaf Children and Youth**

Winter. 3(3-0) CEP 460, T E 470, ASC

454.

Adaptation of educational methods, materials and curriculum to the needs of individuals with severe and profound hearing impairment.

**465B. Language Development: Assessment, Curriculum and Methods for Elementary Hearing Impaired**

Fall. 3(3-0) CEP 460, T E 470, LIN 410 or concurrently, CEP 465K concurrently.

Theories of language development for deaf students: tests, curriculum and materials for natural and structured approaches in elementary grades.

**465C. Speech Development for the Deaf**

Fall. 3(3-0) CEP 465B or concurrently.

Techniques for aiding development of intelligible speech in individuals with severe and profound hearing loss.

**465D. American Sign Language I**

Fall, Winter, Summer. 3(3-0) Approval of department.

A basic working knowledge of American Sign Language (ASL). Basic sentence patterns, study grammatical devices and learn vocabulary.

**465E. American Sign Language II**

Winter, Spring, Summer. 3(3-0) CEP 465D.

Intermediate grammatical structures and vocabulary in American Sign Language.

**465F. American Sign Language and Manually Coded English**

Spring. 3(3-0) CEP 465E or approval of instructor.

Advanced grammatical structures and vocabulary in American Sign Language and Manually Coded English.

**465G. Technical Signs for Sign Language**

Spring. 3(3-0) CEP 465E.

Technical vocabulary development for manually coded English and American Sign Language.

**465K. Practicum: Hearing Impaired**

Fall, Winter, Spring. 2(0-6) Approval of instructor.

Observation/participation in day classes for hearing impaired learners at elementary, secondary or post-secondary levels. Minimum 60 clock hours.

**466B. Elementary Curriculum and Instruction for the Emotionally Impaired**

Winter. 3(3-0) CEP 460; CEP 460C, CEP 466C, CEP 466K concurrently or approval of instructor.

Curriculum instruction for elementary school-aged emotionally impaired.

**466C. Secondary Curriculum and Instruction for the Emotionally Impaired**

Winter. 3(3-0) CEP 460; CEP 460C, CEP 466B, CEP 466K concurrently or approval of instructor.

Curriculum and instruction for secondary school-aged emotionally impaired students.

**466K. Practicum: Emotionally Impaired**

Winter. 3(0-9) CEP 460C, CEP 466B, CEP 466C concurrently or approval of instructor.

Practicum in elementary and secondary school programs for the emotionally impaired.

**467K. Practicum: Mentally Impaired**

Winter. 3(0-9) May reenroll for a maximum of 9 credits. CEP 428B, CEP 428C concurrently.

Supervised practicum in an educational program for mentally retarded learners.

**470J. Teaching Low Vision Skills to Visually Impaired Learners**

Fall, Winter, Spring. 1(0-3) T E 473 or CEP 870K or CEP 871 concurrently.

Utilizing specialized curricula, instructional strategies, materials and aids to assess and facilitate learning for low vision students in classroom settings.

Approved through Fall 1989.

**470K. Aiding Teachers of Visually Impaired Learners**

Fall, Winter, Spring. 1 to 3 credits. May reenroll for a maximum of 5 credits. Juniors in education of visually handicapped or blind-deaf children.

Practicum in aiding teachers of preschool, primary, intermediate and adolescent-young adults, or multi-impaired blind learners in public or residential school programs.

**470L. Teaching Daily Living Skills to Visually Handicapped Learners**

Fall, Winter, Spring. 1(0-3) T E 473 or CEP 870K or CEP 871 concurrently.

Supervised practice with visually handicapped and blind/deaf learners to develop competencies in teaching orientation and mobility, and the other skills of daily living.

Approved through Fall 1989.

**471A. Blind/Deaf and Multiply Impaired Blind in Elementary Education**

Fall. 3(3-0) ASC 222 or concurrently.

Assessing and teaching severely multiply handicapped visually impaired and blind/deaf elementary school students in readiness skills, sensory development, behavior management and modification, communication, and language.

**471B. Teaching Optacon Reading to Blind School-Age Learners**

Winter. 1(0-2) Junior Special Education majors.

A laboratory course emphasizing curriculum, teaching methods and materials designed to enable blind school-age learners to read print using the Optacon.

Approved through Fall 1989.

**471D. Blind/Deaf and Multiply Impaired Blind in Secondary Education**

Spring. 3(3-0) CEP 471A.

Assessing and teaching severely multiply impaired, blind/deaf secondary education students in prevocational, vocational, and career education, and independent living. Includes working with team for transition from school to adult living.

**471K. Aiding Teachers of Blind/Deaf Learners**

Fall, Winter, Spring. 1(0-3) May reenroll for a maximum of 3 credits. Juniors in education of blind/deaf children.

Three separate experiences aiding teachers of blind/deaf learners in teaching low-functioning, preacademic and primary level children.

**Descriptions — Counseling, Educational Psychology and Special Education  
of  
Courses**

**472A. Braille**

(CEP 470C.) Winter. 4(2-4) CEP 460 or concurrently.

Reading and writing standard English Braille including music, foreign language and scientific notations. Use of braille, slate and stylus.

**472B. Methods for Blind Students in Elementary Education**

Spring. 4(3-2) CEP 472A; 1 credit of CEP 470K concurrently.

Unique curricula, methods and media for teaching sensory/concept development, communication and other skills to visually impaired learners, to enable them to access the basic curriculum of elementary education.

**472C. Mathematics Methods for Blind Students in Elementary Education**

(CEP 470F.) Fall. 3(2-2) CEP 472A.

Basic skills in teaching mathematics readiness and computations concepts to visually impaired learners in elementary school. Use of Nemeth Braille Code for mathematics and science, and adapted abacus.

**472D. Secondary Education of Visually Impaired Youth**

Fall. 4(3-2) CEP 460 or concurrently; 1 credit of CEP 870 concurrently.

Teaching the enabling skills needed by visually impaired youth to access the regular secondary education curriculum, meet graduation standards, and achieve a successful transition from school to work.

**472E. Provisions for the Visually Impaired in Elementary Education**

(CEP 470A.) Spring. 3(2-2) CEP 460 or concurrently; CEP 434 or concurrently; 1 credit of CEP 470K concurrently.

History, legislation, statistics, trends in elementary education of visually impaired. Methods and materials for assessment and utilization of low vision. Tactual, auditory and visual access to computers.

**472G. Principles of Orientation and Mobility**

Fall. 3(3-0) CEP 460 or concurrently.

Adaptive travel techniques, navigation, environmental awareness and concept development for handicapped and visually impaired students.

**472I. Techniques of Orientation and Mobility**

Fall, Winter. 3(1-4) CEP 472G or concurrently; majors in special education with an emphasis in visually impaired.

Methods of navigation relating to blindness taught under blindfold conditions. Structure, function and problems with the proprioceptive system in relation to orientation and mobility.

**472J. Advanced Techniques of Orientation and Mobility**

Winter, Spring. 4(1-6) CEP 472I.

Advanced navigation and environmental awareness relating to blindness and application of teaching methods; techniques taught under blindfold conditions in complex environmental settings.

**472K. Teaching Orientation and Mobility to Elementary Education Visually Impaired**

Spring, Summer. 1 to 15 credits. May reenroll for a maximum of 18 credits. CEP 472G; CEP 472I; CEP 472J; approval of department.

Practicum in teaching independent travel to visually impaired and blind students in elementary education.

**473. Parent-Teacher Relationships in Special Education**

Fall. 3(3-0) CEP 460 or approval of department.

Development of skills for parent-teacher conferences and consultant-teacher relationships. Strategies for managing home-school relationships particularly in the area of mental impairment.

**473K. Teaching Orientation and Mobility to Secondary Education Visually Impaired**

Spring, Summer. 1 to 15 credits. May reenroll for a maximum of 18 credits. CEP 472J; CEP 472K or concurrently; approval of department.

Practicum in teaching independent travel to visually impaired and blind students in secondary education.

**482. Seminars in Counseling, Educational Psychology and Special Education (MTC)**

Fall, Winter, Spring, Summer. 1 to 6 credits. May reenroll for a maximum of 8 credits if different topics are taken. Approval of department.

Seminars in the various fields of emphasis in counseling, educational psychology and special education.

**800. Principles of Educational Measurement**

Winter, Summer. 3(3-0) CEP 401 or CEP 400; CEP 904.

Nature of measurement and types of scales. Units, scores, norms, sampling, item analysis, batteries and profiles. Principles of reliability and validity. Use of test scores in decision making.

**801. Seminar in Test Development**

Spring of odd-numbered years. 3(3-0) CEP 400.

Techniques in preparing and developing achievement test items and tests.

**802A. Appraisal of Individual Intelligence and Personality: Individual Measurement—Binet**

Winter. 3(3-0) CEP 401 or CEP 400 or PSY 415; approval of instructor.

Fundamentals of individual intelligence measurement. Measurement of intelligence with the Stanford-Binet. Observation, practice, and interpretation in an educational setting.

**802B. Appraisal of Individual Intelligence and Personality: Individual Measurement—Wechsler**

Fall. 3(3-0) CEP 401 or CEP 400 or PSY 415; approval of instructor.

Measurement of intelligence with the Wechsler scales. Observation, practice, supervision, and interpretation.

**802C. Appraisal of Individual Intelligence and Personality: Personality Assessment in Education**

Spring. 3(3-0) CEP 400 or CEP 401, CEP 813 or PSY 427A.

Study of general personality structure and methods in personality assessment related to education.

**803. Educational Research Methods**

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

Rationale for and methods of research in education. Emphasis is given to the identification of researchable problems and the interpretation of research studies in the student's major field.

**804. Appraising Educational Research**

Winter, Summer. 4(4-0) Approval of instructor.

Appraisal of educational research from a data analytical point of view. Issues of statistical models and experimental design needed to critically examine research.

**808. Educational Program Evaluation**

Fall, Spring. 3(3-0) CEP 803.

History and current status of program evaluation, including a review of various evaluation models, common problems of implementation and alternative evaluation designs.

**809. Case Studies in Program Evaluation**

Winter. 3(3-0) CEP 808. Interdepartmental with the Department of Teacher Education.

Analysis of previously conducted program evaluations in terms of decisions evaluators must make about evaluation models, purposes, design, conduct, and reporting.

Approved through Fall 1989.

**811. Psychology of Classroom Learning**

Fall, Spring, Summer. 3(3-0) CEP 410 or CEP 411.

Survey of research with special attention to applications to teaching and development of school programs.

**812A. Growth and Behavior**

Fall, Summer. 3(3-0) CEP 412 or approval of instructor.

Survey of research with special attention to applications to teaching and school programs.

**812B. Psychology of Adolescence in the Schools**

Winter, Spring. 3(3-0)

Adolescent growth and development with emphasis on physical maturation, intellectual growth, and self-concept development. Impact of family and peer relations, social-emotional adjustment, problems teachers face with adolescents.

**812C. Psychology of the Gifted Student**

Winter. 3(3-0) CEP 812A or CEP 812B.

This course will focus on the psychoeducational characteristics of gifted and talented students, the efficacy of administrative provisions, the development of creativity, and special talents.

**813. Social and Emotional Behavior in the Classroom**

Fall, Spring. 3(3-0) Six credits in Psychology or Educational Psychology.

Survey of experimental and clinical research related to life factors which affect social-emotional development; implications for teaching.

**814. Psychology of Classroom Discipline**

Summer. 3(3-0) Experience in teaching or pupil personnel work.

The study and practice of positive strategies for the resolution of classroom discipline problems.

**818A. Behavior Disorders in Children**

Winter. 3(3-0) 12 graduate credits in educational psychology or a related area.

Characteristics, causes and treatment of school related behavior disorders in children considered within a developmental framework.

**Counseling, Educational Psychology and Special Education — Descriptions  
of  
Courses**

- 818B. Roles and Functions of School Psychologists**  
Spring, 3(3-0) Admission to Ed.S. program or approval of instructor.  
History and current status of the field. Current concerns in assessment, reporting of findings, consultation and legal-ethical responsibilities.
- 818C. Laboratory and Field Experience in School Psychology**  
Fall, Winter, Spring, 3 to 15 credits.  
May reenroll for a maximum of 15 credits.  
Approval of instructor.  
Supervised experience in a public school setting involving individual psychological instruments, preparation of written reports, participation in educational planning and placement conferences, and consultation regarding handicapped and normal children and youth.
- 818D. School Psychological Consultation**  
Spring, 3(3-0) CEP 818A, CEP 818B.  
Description and evaluation of the major approaches to psychoeducational consultation as practiced by school psychologists.
- 819C. Psychological Foundations of Reading Instruction**  
Fall, Spring, 3(3-0) T E 819A or approval of instructor. Interdepartmental with and administered by the Department of Teacher Education.  
Instruction in reading as informed by current research in cognitive psychology, with an emphasis on the relationship between cognitive processing and reading comprehension instruction.
- 820E. Diagnosis of Reading Difficulties**  
Fall, Winter, Spring, Summer, 3(2-2)  
Graduate students in education; T E 820A or T E 820C or approval of department.  
Causes and types of reading retardation are considered, and procedures for working with retarded readers are examined. Laboratory experiences in administering and interpreting standardized and informal tests are provided.
- 820G. Clinical Practice in Remedial Reading**  
Fall, Winter, Spring, Summer, 3(2-2)  
Graduate students in education; T E 820A or T E 820C or approval of department; CEP 820E recommended.  
Students work with individual cases, observe and practice group procedures in the University reading clinic.
- 820M. Seminar in Diagnostic and Remedial Reading**  
Fall, Winter, Spring, Summer, 3(3-0) CEP 820G.  
Focuses on the psychological and physiological nature of reading retardation, the relationships between clinical reading programs and the larger curriculum environment, and the role of the reading diagnostician.
- 824. Process of Instructional Development**  
Fall, Spring, 3(3-0)  
Application of a validated instructional systems approach to the development of practical solutions to critical teaching and learning problems for teachers, administrators, and media specialists.
- 825. Seminar in Instructional Television**  
Spring, 3(3-0) Approval of department. Interdepartmental with the Department of Telecommunication.  
Television use in instruction, particularly as it concerns the learner, the classroom teacher, the instructional developer and the administration.
- 826. School Application of Portable ITV**  
Fall, 3(3-0) CEP 410, CEP 431A, CEP 431B or approval of instructor.  
Application of concepts, principles, and skills relevant to portable ITV systems and television teaching techniques.
- 830. Media Center and Instructional Design Project Management**  
Winter, 3(3-0) CEP 831A or approval of instructor.  
Administration models used by media centers; comparison of theoretical and operational characteristics of recommended models and development of models for the students' use.
- 831A. Effective Use of Instructional Media**  
Fall, 3(3-0) Approval of department.  
Use of a range of instructional media within the context of a systematically planned program of objectives, learning principles, methods and evaluation.
- 831B. Graphics Design and Use in Instruction**  
Fall, Winter, Spring, 3(3-0) CEP 831A or approval of department.  
Concepts, principles and techniques for preparation and use of graphics in instruction. Design and presentation of materials for developmental boards, slides, transparencies, models, and exhibits. Simple production techniques for teaching.
- 831C. Photography in Instruction**  
Spring, 3(3-0) CEP 831B or approval of department.  
Design, production, and use of photographic materials for instruction. Production of photographs, slides, filmstrips, overhead transparencies, sound tapes, and motion pictures. 35mm still camera (preferably a single lens reflex) required.
- 831D. Instructional Cinematography**  
Fall, 3(3-0) Approval of instructor.  
Potentials and limitations of motion pictures for instructional and informational programs. Writing and budgeting film proposals, scripting, filming techniques, sound, animation, composition, film editing. Super 8mm format used.  
Approved through Fall 1989.
- 832. Diffusion of Educational Innovations**  
Fall, Spring, 3(3-0) Approval of instructor.  
Operational principles, techniques, and heuristics for gaining and maintaining change in educational and training organizations.
- 833. Information Handling Systems**  
Spring, 3(3-0) CEP 434 or approval of instructor.  
Design, implementation and study of information handling systems for print and non-print resources.
- 834. Computer Applications in Education I**  
Winter, Spring, 3(3-0) CPS 115, CEP 434, or approval of instructor.  
Fundamentals of computer applications in education, with hands on experience. History of computer education, computer functioning related to educational problems. Hardware and software available for educational application.
- 834A. Computer Applications in Education II**  
Fall, 3(3-0) CEP 834.  
Computer applications in instruction, administration and research. Direct experience with a broad spectrum of computer software widely used in educational applications.
- 834B. LOGO for Teachers**  
Spring, 3(3-0) CEP 434.  
Lesson planning and guided discovery teaching techniques in LOGO.
- 834C. Teaching Problem Solving Skills with Microcomputers**  
Winter, 3(3-0) CEP 434.  
Using computers to develop selected problem solving skills through appropriate data bases, spreadsheet, and programming strategies.
- 836. Computer Assisted Instruction**  
Summer, 3(3-0) CEP 434.  
Teaching applications of computer in instruction including evaluation of commercial courseware, instruction in use of author languages (PILOT, AUTHOR1, Talk/Tutor), and the process of development of CAI packages.
- 837. Instructional Product Development**  
Spring, 3(3-0) CEP 838A, CEP 838B, approval of instructor.  
Determining a need for, and designing, developing, evaluating, installing and maintaining instructional products in a variety of settings including schools, universities, business, industry and government.
- 838A. Instructional Design and Technology I**  
Fall, 3(3-0) Approval of instructor.  
Basic skills and principles of instructional unit design: objectives, task description and analysis, and evaluation of instruction.
- 838B. Instructional Design and Technology II**  
Winter, 3(3-0) CEP 838A or approval of instructor.  
Basic skills and principles of instructional lesson design, including motivation, mental set, explanation, demonstration, practice and feedback.
- 838C. Instructional Delivery Lab**  
Spring, 4(2-4) CEP 838A, CEP 838B.  
Practice and analysis of presenting explanations and leading discussions based on instructional design principles and procedures grounded in research and theory.
- 840A. Counseling Practice**  
Fall, Summer, 3(3-0) Admission to M.A. Counseling Program. Interdepartmental with the School of Health Education, Counseling Psychology and Human Performance.  
The practice of counseling and guidance in schools, community colleges, and rehabilitation agencies.

**Descriptions — Counseling, Educational Psychology and Special Education  
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**840B. Introduction to Counseling Theory**  
Fall, Summer. 3(3-0) Admission to  
M.A. Counseling Program.

Selected theories of counseling with special attention to the application of theories of learning in the counseling process.

**840C. The Guidance Information Service**  
Winter. 3(3-0) CEP 840A, CEP 840B.  
*Interdepartmental with the School of Health Education, Counseling Psychology and Human Performance.*

The use of occupational, educational and social information in counseling interviews and in guidance programs.

**840D. The Counseling Process**  
Fall, Winter. 3(3-0) CEP 840A, CEP 840B.

The counseling process with emphasis given to students learning a systematic approach to counseling. Students practice interviewing skills in a counseling laboratory.

**840E. Counseling and Consulting Strategies**  
Fall, Winter. 3(3-0) CEP 840A, CEP 840B.

Selected remedial and preventative counseling strategies will be studied. Methods and techniques for assisting with individual and environmental change will be examined. Procedures for consulting with parents, teachers, and agency personnel will be studied.

**840F. Counseling Practicum I**  
Fall, Winter, Spring. 6(4-8) CEP 840C, CEP 840D. *Interdepartmental with the School of Health Education, Counseling Psychology and Human Performance.*

Supervised counseling experienced in selected schools and agencies followed by analysis and critique of these experiences through group and individual consultation with instructor.

**840G. Counseling Practicum II**  
Fall, Winter, Spring. 6(4-8) CEP 840F.

Continuation of CEP 840F.

**840J. Group Procedures in Counseling**  
Winter, Summer. 3(3-0) CEP 840D, CEP 840E.

Theories of group counseling with special attention to goal-directed groups. Analysis of group counseling and practice in leading groups under simulated conditions.

**840K. Research in Counseling**  
Fall. 3(3-0) CEP 904.

Emphasis on research methods useful to counselors; measuring counseling outcomes, developing local test norms and expectancy tables, evaluating guidance services, studying behavior change in the single case.

Approved through Fall 1989.

**840M. Development and Administration of Counseling Services**  
Summer. *Students in rehabilitation counseling should enroll Fall Term.* 3(3-0) Approval of department.

Policy issues in counseling, service development strategies, administrative issues, management and supervisory practices.

**842A. Introduction to Rehabilitation Counseling**  
(HCP 842A.) Fall. 3(3-0) *Rehabilitation Counseling majors or approval of instructor.*

Overview of field of rehabilitation. Orientation to the Michigan Division of Vocational Rehabilitation. Rehabilitation counseling pre-practicum experience with Michigan Department of Vocational Rehabilitation.

**842B. Overview of Rehabilitation Placement**  
(HCP 842B.) Spring. 3(3-0) CEP 840C, CEP 842A.

An overview of the impact areas of job placement for the handicapped. Presentations on placement models, state agency approaches, pertinent legislation, and employer, counselor, and client perspectives.

**842D. Disability Management Services**  
(HCP 842D.) Fall. 3(3-0) CEP 842B or approval of instructor.

Techniques for surveying employers, gaining entry for an interview, presenting oneself, client, and agency, and assisting clients in their search for employment.

**842E. Research Applications in Rehabilitation**  
(HCP 842E.) Winter. 3(3-0) *Rehabilitation Counseling majors only.*

Individual study and research related to an aspect of rehabilitation.

**842G. Vocational Assessment in Rehabilitation**  
(HCP 842G.) Winter. 3(3-0) CEP 842A.

Vocational (work) evaluation: utilizes work, real or simulated, as the focal point for assessment and vocational counseling to assist individuals in vocational development. Majority of classes are held in an off-campus rehabilitation center.

**842J. Rehabilitation Internship**  
(HCP 842J.) Winter, Spring. 3 to 21 credits. *May reenroll for a maximum of 21 credits.* CEP 840F, approval of school.

Supervised graduate internship in rehabilitation counseling.

**842K. Independent Living in Rehabilitation**  
(CEP 842K, HCP 842K.) Spring of odd-numbered years. 3(3-0) *Rehabilitation Counseling major or approval of instructor.*

Independent living including social and political implications, current status and related issues.

**842L. Leadership in Rehabilitation Counseling**  
(CEP 842L, HCP 842L.) Spring. 3(3-0) CEP 842A.

Theoretical and practical approaches to management through leadership in the rehabilitation counseling area including management projects.

**842M. Psycho-Social Aspects of Disability**  
(CEP 842M, HCP 842M.) Winter. 3(3-0) *Graduate students or approval of instructor.*

Factors influencing psychological/social response to congenital/acquired, physical/mental disabilities in children and adults including physical characteristics of impairment, life span development, personality, social role, attitudes and environment.

**842P. Medical Information for Human Service Professionals**  
(HCP 842P.) Fall. 3(3-0) *Rehabilitation Counseling major or approval of instructor.*

Provide a basic understanding of the major body systems and the chronic diseases and disabilities associated with these systems. Emphasis on medical lectures by physicians.

**844A. Introduction to Urban Counseling**  
Fall. 3(3-0) CEP 840A, CEP 840B concurrently.

Problems—health, sociocultural, economic, educational, legal, vocational—as manifested by urban residents and their resolution through counseling. Emphasis on systems and personal change mechanisms.

Approved through Fall 1989.

**844B. Systemic Counseling**  
Fall. 3(3-0) *Approval of department.*

An evaluation of the theory and philosophy of systemic counseling. Issues pertaining to systemic change will be examined.

Approved through Fall 1989.

**844C. Urban Counseling Practicum**  
Fall, Winter, Spring, Summer. 3 credits. *May reenroll for a maximum of 12 credits.* CEP 844A or approval of instructor.

A minimum of 12 hours per week of supervised counseling will be performed in an urban agency setting. Emphasis on developing counseling skills applicable to urban residents and urban agencies.

Approved through Fall 1989.

**844D. Urban Career Development System Analysis**  
Winter. 3(3-0) CEP 844A, approval of department.

Critique of existing theories of vocational (career) development and interest inventories for use with urban residents, examination of barriers to urban residents, and development of alternative models.

**844E. Urban Counseling in the Elementary School**  
Summer. 3(3-0) *Approval of department.*

Seminar of issues and impact of the urban environment on the elementary child's personal and social responsibilities with implications for the role of the counselor.

Approved through Fall 1989.

**844F. Multicultural Counseling**  
Winter. 3(3-0)

Historical perspective, definition, manifestations and consequences of sexism, racism and alienation in promoting social inequality. Emphasis upon creating counseling interventions to address needs of alienated groups.

**844G. Community Evaluative Research**  
Spring. 3(3-0) CEP 844A, CEP 803, CEP 904 or approval of department.

Application of evaluative research methods to the solution of urban problems; review of current evaluative techniques; identification of problems, design, experiments; review of selected studies.

Approved through Fall 1989.

**850B. Stress Management**  
(HCP 850B.) Fall. 3(3-0) *Approval of department.*

Principles of stress management and their application to personal and occupational stress situations.

- 851A. Development of Self-Understanding**  
Fall, Spring, Summer. 3(3-0)  
Development of self-awareness and understanding of how one's personal and interpersonal style influences and is influenced by human relationships in educational settings.
- 851B. Self-Concept Development and Enhancement**  
Winter, Summer. 3(3-0)  
Self-concept development from childhood through adulthood; how teachers, parents, and personal life experiences impact self-concept; enhancement strategies.
- 863A. The Handicapped Student in the Regular Classroom**  
Summer. 3(3-0) Teacher certification.  
Problems and issues involved in educating children in the least restrictive environment (mainstream). Emphasis on legal, attitudinal, and practical factors which influence teachers and students.
- 865. Education of Hearing Impaired Children and Youth**  
Fall. 3(3-0) CEP 465E; CEP 465K concurrently.  
Political, social, methodological, philosophical, and legal issues in the education of hearing impaired children and youth.
- 865A. Issues in Education of Deaf**  
Spring. 3(2-3) Graduate students.  
Designed for graduate non-majors seeking to expand information and understanding of severe and profound hearing loss; educational implications, programs.  
Approved through Fall 1989.
- 865B. Language Development: Assessment, Curriculum and Methods for Secondary Deaf Students**  
Winter. 3(3-0) CEP 865, CEP 865G or concurrently; CEP 865K concurrently.  
Techniques, curriculum, materials, and assessment of language development in secondary deaf students.
- 865G. Psycho/Social Aspects of Deafness**  
Winter. 3(3-0) Special Education major or approval of instructor.  
Psychological and sociological impact of deafness and implications for education; deaf culture.
- 865K. Practicum: Elementary or Secondary Deaf**  
Fall, Winter, Spring. 2 to 15 credits.  
May reenroll for a maximum of 20 credits. Graduate students, prior teaching or clinical experience.  
Practicum in education programs with hearing impaired students.
- 865M. Independent Study: Education of Deaf**  
Spring. 2 to 5 credits. May reenroll for a maximum of 10 credits. Graduate students.  
Supervised study in deaf education conducted according to a written agreement stating the problem or topical area of study, the methodology and the product of the study.
- 866A. Issues in Education of Emotionally Impaired**  
Summer. 3(3-0) Special Education majors only, approval of instructor.  
This seminar focuses on crucial issues related to programming for emotionally impaired students.
- 866K. Practicum: Emotionally Impaired**  
Spring. 3 to 12 credits. May reenroll for a maximum of 18 credits. Master's students with an emphasis in emotionally impaired, approval of department.  
Supervised graduate practicum in educational programs for the emotionally impaired.
- 866M. Independent Study: Emotional Impairment**  
Spring. 2 to 6 credits. May reenroll for a maximum of 12 credits. Graduate students.  
Supervised study in emotional impairment conducted according to a written agreement stating the problem or topical area of study, the methodology and the product of the study.
- 867J. Advanced Methods and Materials in Special Education: Mentally Handicapped Children and Youth**  
Winter. 3(3-0) CEP 428B, CEP 428C, CEP 460C.  
An analysis of research, trends, and programs in the area of mental retardation. Emphasis upon the relationship these factors have to problems of curriculum, teaching methods, guidance of students, and general classroom management.
- 867K. Practicum: Mentally Impaired**  
Spring. 1 to 12 credits. May reenroll for a maximum of 12 credits. Approval of instructor.  
Practicum in educational programs for the mentally impaired.
- 867M. Independent Study: Mental Impairment**  
Spring. 1 to 12 credits. May reenroll for a maximum of 12 credits. Approval of instructor.  
Study of mental impairment through supervised independent reading and writing.
- 868A. Advanced Methods and Materials in Special Education: Pre-vocational/Vocational Curriculum for SEI/Autistic Students**  
Fall. 3(3-0) Approval of instructor.  
Overview of autism and rehabilitation services. Assessment procedures, placement criteria and prevocational/vocational curriculum. Skill development for severely emotionally impaired/autistic students.
- 868B. Advanced Methods and Materials in Special Education: The Severely Impaired/Autistic Student in the Home and School**  
Spring. 3(3-0) Approval of instructor.  
A comprehensive exploration of autism in terms of diagnosis, treatment and prognosis. The effect of autism on the family unit, the community and the school system.
- 868C. Advanced Methods and Materials in Special Education: Communication Strategies for Teachers of Autistic Students**  
Spring. 3(3-0) Approval of instructor.  
Design and implementation of a language and communication curriculum for autistic students. Traditional language development and alternative modes of communication stimulation.
- 868D. Seminar: Severely Emotionally Impaired/Autistic**  
Fall, Winter, Spring. 2(2-0) May reenroll for a maximum of 6 credits. Approval of instructor.  
Coordination of course work and field experience for the SEI/Autistic emphasis. Information regarding autism, task analysis, curriculum, research.
- 868K. Severely Emotionally Impaired/Autistic**  
Fall, Winter, Spring. 3 to 6 credits.  
May reenroll for a maximum of 18 credits. Approval of instructor.  
Students spend 3 days a week in a public school setting for severely emotionally impaired/autistic students applying skills learned in related courses.
- 869A. Education of Mildly Impaired Learners**  
Fall. 3(3-0) CEP 460.  
Comprehensive introduction to the field of learning disabilities including theory, issues, programs, characteristics, terminology, and major components of the law.
- 869B. Principles of Formal and Informal Assessment of Mildly Impaired Students**  
Fall, Winter. 3(3-0) CEP 460, CEP 869A or approval of instructor.  
Methods, techniques and instruments for identifying and diagnosing academic problems of analysis of formal and informal assessment strategies. Interpretation of diagnostic profiles.
- 869D. Teacher Consultant Skills for Mainstreamed Students**  
Spring. 3(3-0) CEP 869B, two years special education teaching experience or approval of instructor.  
Consultant skills including role identification, problem-solving techniques, individual and group communication processes, inservice activities, school survival and study skills curriculum.
- 869E. Personal Adjustment and Career Preparation for the Mildly Impaired Secondary Student**  
Winter. 3(3-0) CEP 869A, CEP 869B or concurrently.  
Assessment procedures and instructional methodology appropriate for learning disabled students. Various programming options and outcomes will be contrasted. Emphasis on instruction in learning strategies.  
Approved through Fall 1989.
- 869F. Evaluation and Remediation Strategies for Mildly Impaired**  
Spring. 3(3-0) CEP 869A, CEP 869B.  
Strategies for the evaluation and remediation of reading and written language disorders of mildly impaired students. Procedures for the selection, development, evaluation, and modification of reading and writing programs.
- 869G. Diagnosis and Remediation of Mathematics for Mildly Impaired Students**  
Winter. 3(3-0) CEP 869A, CEP 869B.  
Cognitive characteristics of mildly impaired students and effects on mathematics and problem solving. Formal and informal assessment techniques. Methods and strategies for remediation.
- 869I. Classroom Management: Elementary, Mildly Impaired**  
Fall. 3(3-0) CEP 869B.  
Effective classroom management and instructional practices for promoting learning by mildly impaired and learning disabled elementary level learners.
- 869J. Behavior Management for Mildly Impaired and Learning Disabled Elementary Students**  
Spring. 3(3-0) Graduate special education majors only.  
Applied behavior analysis for elementary mildly impaired and learning disabled students.

## Descriptions — Counseling, Educational Psychology and Special Education

of

### Courses

**869K. Learning Disabilities Practicum, Elementary or Secondary**

Fall, Winter, Spring, Summer. 1 to 12 credits. May reenroll for a maximum of 12 credits. Approval of instructor.

Supervision in working with mildly impaired, learning disabled students in elementary or secondary schools or clinical settings.

**869L. Curriculum Design and Prevocational Development for Elementary Learning Disabled**

Winter. 3(3-0) CEP 869B.

History, rationale and required academic skills for vocational education. Mathematics, reading, social studies curricular adaptations. Emphasis on mildly impaired and learning disabled elementary students.

**869M. Independent Study: Learning Disabilities**

Fall. 3 to 12 credits. May reenroll for a maximum of 12 credits. CEP 460J, CEP 869B, CEP 869F, CEP 869G.

Supervised study in learning disabilities conducted according to a written agreement stating the problem or topical area of study, the methodology and the product of the study.

**869N. Curriculum Design and Prevocational Development/Secondary Learning Disabled**

Fall. 3(3-0) CEP 869B.

History, rationale and required academic skills for vocational education. Mathematics and reading curricular adaptations. Emphasis on mildly impaired, learning disabled adolescents.

**869P. Vocational and Career Education for Learning Disabled**

Fall. 3(3-0) CEP 869B.

Philosophy and methods for vocational and career education of mildly impaired and learning disabled adolescents. Emphasis on assessment instruments and techniques, community resource outreach methods.

**869Q. School Survival—Personal and Social Adjustment**

Spring. 3(3-0) CEP 869B.

School survival for mildly impaired and learning disabled adolescents: personal adjustment, study skills and their relationship to vocations and careers.

**870. Teaching Visually Impaired in Secondary Education**

Fall, Winter, Spring. 1 to 15 credits. May reenroll for a maximum of 18 credits. CEP 472D or concurrently; approval of department.

Student teaching in secondary education programs for visually impaired and blind students.

**870K. Teaching Young Visually Impaired Children**

Fall, Winter, Spring. 1 to 15 credits. May reenroll for a maximum of 18 credits. Approval of department.

Supervised graduate student teaching with pre-school or elementary school-age visually impaired and blind children.

**871. Teaching Severely Multiply Impaired—Blind/Deaf in Secondary Education**

Winter, Spring. 1 to 15 credits. May reenroll for a maximum of 18 credits. Approval of department.

Supervised graduate student teaching in secondary education programs for blind/deaf and severely multiply impaired learners.

**871K. Teaching Severely Multiply Impaired and Blind/Deaf in Elementary Education**

Spring. 1 to 15 credits. May reenroll for a maximum of 18 credits. T E 473 or CEP 870K, CEP 471A.

Student teaching in elementary education programs for blind/deaf and severely multiply impaired learners.

**872. Analysis of Special Education Research**

Winter of odd-numbered years. 3(3-0) Approval of department.

Analysis of research studies in each special education disability area. Study of research design and procedures; discussion of theoretical and applied issues relating to the contents of the studies.

**875B. Special Education Finance**

Winter. 3(3-0) Graduate students.

Analysis of major special education funding systems, the Michigan system, intermediate school district special education tax, constituent district reimbursement policies and approaches to special education budgeting.

**875C. Special Education Law**

Spring of odd-numbered years. 3(3-0) Approval of instructor.

Analysis of State and Federal legislation, regulations, and litigation as related to special education and impact on administration of those programs. Includes study of current and precedent setting court decisions.

**875D. Administration of Educational Programs: Administration of Special Education Programs**

Winter, Summer. 3(3-0) Approval of department.

Designed to promote the study of application of theory and research to specialized program areas. Persons will normally select the section allied to their major program area. Organization and administrative aspects of special education programming. Federal, state, intermediate and local district level programs in special education are reviewed.

**879. Independent Study: Special Education**

Fall. 3 to 6 credits. May reenroll for a maximum of 12 credits. Approval of instructor.

Supervised study in special education conducted according to a written agreement stating the problem or topical area of study, the methodology and the product of the study.

**882. Seminars in Counseling, Educational Psychology and Special Education (MTC)**

Fall, Winter, Spring, Summer. 1 to 9 credits. May reenroll for a maximum of 15 credits if different topics are taken. Approval of department.

Seminars in the various fields of emphasis in counseling, educational psychology and special education.

**883. Readings and Independent Study in Counseling and Educational Psychology**

Fall, Winter, Spring, Summer. 1 to 6 credits. May reenroll for a maximum of 15 credits. Approval of department.

Study on an individual or group basis in the various fields of emphasis.

**884. Laboratory and Field Experience in Counseling and Educational Psychology**

Fall, Winter, Spring, Summer. 1 to 9 credits. May reenroll for a maximum of 15 credits. Approval of department.

Supervised graduate practicums, observations, internships, and externships in the various areas of emphasis.

**899. Master's Thesis Research**

Fall, Winter, Spring, Summer. 2 to 12 credits. May reenroll for a maximum of 12 credits. Approval of department.

**900A. Psychometric Theory**

Fall of odd-numbered years. 3(3-0) CEP 800, CEP 905.

Advanced theoretical aspects and derivation of formulas involved in reliability, validity, item analysis, weighting and differential prediction, sampling and norm construction, and the relation of item characteristics to test statistics.

**900B. Problems of Educational Measurement**

Winter of even-numbered years. 3(3-0) CEP 800, approval of department.

Advanced consideration of the logical and philosophical bases of educational measurement. Theory of test planning and development and evaluation. Problems of test administration and scoring. Issues in test use.

**900C. Testing and Evaluation in Counseling Psychology**

(HCP 900C.) Fall. 3(3-0) Doctoral student in counseling psychology or approval of instructor.

Analysis and interpretation of selected standardized tests related to vocational counseling of college students. Self-appraisal, case studies and clinical experience under supervision will be emphasized.

**900D. Advanced Topics in Classical Test Theory**

Winter of odd-numbered years. 3(3-0) CEP 905, CEP 800.

Refinements and extensions of classical test theory approaches to the design and interpretation of educational measures. Primary attention given to generalizability theory and its applications.

**900E. Using Standardized Tests for Decision Making**

Fall. 3(3-0) CEP 401 or approval of department.

School administrative decision making based on information yielded by standardized tests. Participants will also engage in private consultations with the instructor concerning system or building data.

Approved through Fall 1989.

**902A. Personality Assessment I**

(HCP 902A.) Fall. 3(3-0) Doctoral student in counseling psychology or approval of instructor.

The application of the MMPI to individuals. Administering and interpreting the MMPI in written and oral form.

**902B. Personality Assessment II**

(CEP 902B, HCP 902B.) Winter. 3(3-0) Doctoral student in counseling psychology or approval of instructor.

Administration, scoring and interpretation of the Rorschach Personality Test. Writing psychological assessment reports. Application of Rorschach technique to treatment, assessment, and diagnosis.

- 904. Quantitative Methods in Educational Research**  
Fall, Winter, Spring, Summer. 4(4-0)  
Pretest and approval of instructor.  
Application of descriptive statistical techniques to educational data. Introduction to estimation and tests of hypotheses. Interpretation of statistical reports.
- 905. Quantitative Methods in Educational Research: Advanced Quantitative Methods in Educational Research**  
Winter. 4(4-0) CEP 904 or pretest, approval of instructor.  
Principles and techniques in the application of inferential statistics to educational data with emphasis on the analysis of variance and multiple comparison procedures. Overview of regression techniques.
- 906. Quantitative Methods in Educational Research: Experimental Design in Education**  
Spring. 4(4-0) CEP 905.  
Theory and practice in the design, analysis and interpretation of experimental and quasi-experimental research.
- 907A. Advanced Research Methods in Education**  
Spring. 4(4-0) CEP 803, CEP 904 or CEP 905.  
Principles and techniques in survey research with limited consideration of content analysis and observational studies. Sampling, instrumentation, data collection, and data analysis.
- 908. Issues in Program Evaluation**  
Spring. 3(3-0) Three courses in measurement, evaluation, statistics, or research design.  
Issues in program evaluation will include such topics as evaluation and political decision making, external vs internal evaluation, qualitative vs quantitative evaluation, evaluation vs research, and meta evaluation.  
Approved through Fall 1989.
- 911. Educational Psychology Seminar**  
Fall, Winter, Spring. 3(3-0) May reenroll for a maximum of 15 credits. Doctoral candidates or approval of instructor. Educational psychology doctoral candidates must enroll in the fall.  
History of educational psychology, learning and cognition, personality and self-concept development, social psychology of classroom behavior, social learning theory, school psychology, research on teaching.
- 913. Seminar in Research on Teaching**  
Winter. 3(3-0) Approval of instructor. Interdepartmental with the Department of Teacher Education.  
Critical survey of five approaches to research on teaching. Students develop a framework for organizing the literature, methods, and issues in the field.
- 915. Language, Literacy, and Learning**  
Spring. 3(3-0) CEP 811, CEP 904, PSY 414, LIN 401 or approval of instructor.  
An overview of the psychological foundation of language processes (reading, writing, speaking, listening) with emphasis on the unique and the overlapping features across the four language areas.
- 917. Cognitive Theories of Knowledge Acquisition**  
Winter of even-numbered years. 3(3-0)  
CEP 411 or CEP 811 or approval of instructor. Interdepartmental with the Department of Teacher Education.  
Cognitive research and theories about the growth of knowledge in academic disciplines and the acquisition of disciplinary knowledge by elementary and secondary school students.
- 919. Psychology and Pedagogy of Reading**  
Spring. 3(3-0) CEP 811, T E 820A, CEP 915 or approval of instructor. Interdepartmental with the Department of Teacher Education.  
Psychological foundations of reading process, and instruction in reading. Cognitive processes and implications for models of reading are emphasized.
- 928. Conceptual Foundations of Educational Research**  
Fall. 3(3-0) Approval of instructor. Interdepartmental with and administered by the Department of Teacher Education.  
Epistemology and ideology in educational research. Analysis of concepts of method, causation, objectivity and subjectivity in historical perspective.
- 931A. Seminar in Instructional Technology: Research and Development**  
Fall. 3(3-0) Approval of department.  
History and development of instructional technology emphasizing leaders, events, research and legislation affecting use of instructional technology in education.
- 931B. Seminar in Instructional Technology: Research and Development**  
Winter. 3(3-0) Approval of department.  
Analysis and appraisal of selected research studies in instructional technology with attention to purposes, rationales, assumptions, designs, methodologies and findings.
- 934A. Seminar in LOGO Educational Research**  
Fall, Summer. 3(3-0) CEP 834B.  
Survey of current research and educational applications of LOGO; analysis of LOGO list-processing characteristics.
- 935. Seminar in Principles and Practice of Instructional Consultation**  
Winter. 3(3-0) CEP 838A, CEP 838B or approval of instructor.  
Theoretic framework for consultation with instructional development clients. Case studies, role play simulations, debriefings. Application of the principles and development of consultation strategies and styles.
- 939. Policy and Legal Issues in Testing**  
Spring of even-numbered years. 3(3-0) CEP 401. Interdepartmental with and administered by the Department of Teacher Education.  
Public policy and legal issues concerning the use of standardized testing to make critical decisions about individuals in American public education.
- 940. Educational Applications of Item Response Theory**  
Spring of even-numbered years. 3(3-0)  
CEP 800; CEP 905.  
Assumptions, model selection, model fit, estimation of item/ability parameters, equating, scaling, item banking and test construction with the Rasch, two-and three-parameter logistic models. Computer experience using BICAL and LOGIST.
- 942. Multivariate/Data Analysis in Education**  
Fall. 4(4-0) CEP 904, CEP 905, CEP 906.  
Multivariate analysis techniques used in education and educational psychology; emphasis on techniques for analysis of designed experiments and methods for analysis of repeated measures data including application and interpretation.
- 944C. Counseling Psychology Supervision**  
(HCP 944C.) Spring. 3(2-4) May reenroll for a maximum of 9 credits. Doctoral student in counseling psychology or approval of instructor.  
Development of supervisory skills through experiences in supervision of master's level counseling students in their field experiences.
- 948A. Counseling Theories**  
(CEP 948A, HCP 948A.) Fall. 3(3-0)  
Doctoral student in counseling psychology or approval of department.  
Theories of counseling, personality, and behavior change with emphasis on implications for research and practice.
- 948B. Psychology of Vocational Development**  
(CEP 948B, HCP 948B.) Fall. 3(3-0)  
Doctoral student in counseling psychology or approval of department.  
Relationship between psychological concepts and vocational development.
- 949A. Social Development and Counseling Psychology**  
(HCP 949A.) Winter. 3(3-0) Doctoral student in counseling psychology or approval of department.  
Stages of social development as a counseling construct. Developmental tasks appropriate to life phases. Implications of missing or inadequately passing through a developmental stage.
- 949B. Learning Foundations of Counseling Psychology**  
(CEP 949B, HCP 949B.) Spring. 3(3-0)  
Doctoral student in counseling psychology or approval of department.  
Principles of learning and their application to the counseling process.
- 951. Group Processes in Counseling Psychology**  
(HCP 951.) Winter. 3(3-0) Doctoral students in counseling psychology or approval of department.  
Didactic-experiential format to explore group dynamics, interpersonal processes within groups, differential effect of various leadership styles, facilitation of group interaction, impact of different theoretical approaches, application to counseling/school settings.
- 952. Research in Counseling Psychology**  
(HCP 952.) Spring. 3(3-0) Doctoral student in counseling psychology or approval of department.  
Criticism, interpretation and design of counseling research.



## Descriptions — Counseling, Educational Psychology and Special Education

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### Courses

**953. Ethics in School and Counseling Psychology**  
(HCP 953.) Spring. 3(3-0) Doctoral students in counseling psychology, school psychology, or approval of instructor.

Professional ethics, standards, principles, guidelines and issues concerning the training and professional activities of counseling psychology and school psychology. Relevant legal issues and precedents.

**954. Cognitive and Affective Bases of Behavior**  
(HCP 954.) Spring. 3(3-0) Doctoral student in counseling psychology or approval of instructor.

Diagnostic and assessment criteria; differential diagnosis; conceptual etiological aspects; implications for treatment and research.

**955. Counseling Pre-Practicum**  
(HCP 955.) Winter. 3(0-6) Doctoral student in counseling psychology.

Seminar emphasizing establishing good interpersonal relationships. Self-understanding, an understanding of psychodynamics, and test interpretation as preparation for assuming counseling responsibilities. Approach is didactic and experimental with limited contacts with clients.

**956A. Counseling Psychology Practicum I**  
(HCP 956A.) Fall. 3(0-6) CEP 955, doctoral student in counseling psychology.

Supervised experience working with college students in a counseling relationship. Group discussions, group supervision and observation of counseling interviews, and individual supervision.

**956B. Counseling Psychology Practicum II**  
(HCP 956B.) Winter. 3(0-6) CEP 956A, doctoral student in counseling psychology.

Supervised experience working with college students in a counseling relationship. Group discussions, group supervision and observation of counseling interviews, and individual supervision.

**956C. Counseling Psychology Practicum III**  
(HCP 956C.) Spring. 3(0-6) CEP 956B, doctoral student in counseling psychology.

Supervised experience working with college students in a counseling relationship in the residence halls. Individual supervision, increased client contact hours, and participation in staff activities.

**957. Multicultural and Urban Issues in Counseling Psychology**  
(HCP 957.) Winter. 3(3-0) Doctoral student in counseling psychology or approval of instructor.

Mental health needs of minority and urban residents. Cross-cultural counseling. Psychotherapy issues and concerns.

**958B. Advanced Practicum in Counseling Psychology**  
(HCP 958B.) Winter, Spring. 3 to 6 credits. May reenroll for a maximum of 6 credits. CEP 956C, doctoral students in counseling psychology.

Applied aspects of counseling through case conferences and presentations of cases by representatives of various counseling orientations.

**959A. Cross Cultural Counseling and Psychotherapy**  
(HCP 959A.) Fall. 3(3-0) CEP 957.

Psychosocial issues involved in counseling racial, ethnic and cultural minority clients.

**959B. A Counseling Perspective on the Minority and Urban Family**  
(HCP 959B.) Winter. 3(3-0) CEP

**959A.** Minority and urban families' dynamics and relations outside the family. Impact of the social and cultural environment on family members.

**959C. Counseling Interventions with Multicultural and Urban Populations**  
(HCP 959C.) Spring. 3(3-0) CEP

**959A.** Developing appropriate and effective counseling intervention strategies based on examination of traditional and nontraditional approaches to treatment and assessment when applied to minority and urban clients.

**961. Issues in Health Psychology**  
(HCP 961.) Spring. 3(3-0) Doctoral student in counseling or clinical psychology or approval of instructor.

The role of the counseling and clinical psychologist in health care systems.

**962. Systemic Models in Counseling Psychology**  
(HCP 962.) Winter. 3(3-0) Doctoral student in counseling psychology or approval of instructor.

Development and utility of systemic models for understanding the counseling process.

**975A. Field Experience: Special Education Administration Simulation**  
Spring. 3(0-9) Approval of instructor.

Supervised graduate practicum in administration of the Special Education program of a simulated school district.

**975B. Field Experience: Special Education Administration**  
Fall, Spring. 3 to 12 credits. May reenroll for a maximum of 18 credits. Approval of department.

Supervised graduate practicum or internship in special education administration.

**976. Policy Issues in Special Education**  
Fall. 4(4-0) Graduate students and approval of instructor.

Policy concerns in special education including economic, social, legal, and organizational issues. Policy implications within the theoretical framework of organizational change.

**981. Topics in Counseling Psychology (MTC)**  
(HCP 981.) Fall, Winter, Spring, Summer. 3 to 6 credits. May reenroll for a maximum of 18 credits. Doctoral students in counseling psychology or approval of instructor.  
Critical issues in counseling psychology.

**982. Seminars in Counseling, Educational Psychology and Special Education (MTC)**  
Fall, Winter, Spring, Summer. 1 to 9 credits. May reenroll for a maximum of 15 credits if different topics are taken. Approval of department.

Seminars in the various fields of emphasis in counseling, educational psychology and special education.

**983. Readings and Independent Study in Counseling and Educational Psychology**

Fall, Winter, Spring, Summer. 1 to 6 credits. May reenroll for a maximum of 15 credits. Approval of department.  
Study on an individual or group basis in the various fields of emphasis.

**984. Laboratory and Field Experience in Counseling and Educational Psychology**

Fall, Winter, Spring, Summer. 1 to 9 credits. May reenroll for a maximum of 15 credits. Approval of department.

Supervised graduate practicums, observations, internships, and externships in the various areas of emphasis.

**999. Doctoral Dissertation Research**  
Fall, Winter, Spring, Summer. Variable credit. Approval of department.

## CRIMINAL JUSTICE

C J

### College of Social Science

**110. Introduction to Criminal Justice**  
Fall, Winter, Spring, Summer. 3(3-0)

Agencies and processes of criminal justice, emphasizing historical, constitutional (legal), and political considerations. Criminal justice is also analyzed as a system, with the problems and prospects for change.

**210. Introduction to Forensic Science**  
Spring. 3(3-0) Not open to majors in Criminalistics.

Nontechnical survey of forensic science and its relationship to the criminal justice system. Evidence and crime scene investigations. Criminalistics, including evidence, serology, pathology, toxicology, questioned documents and expert testimony.

**312. Criminalistics I**  
Fall. 3(0-6) Criminalistics majors.

Criminalistics laboratory techniques. Photography, crime scene recording, reproduction of evidence, latent fingerprints.

**313. Criminalistics II**  
Winter. 3(0-6) C J 312, approval of school.

Criminalistics laboratory techniques. Firearms. Hair and fiber identification. Comparative microscopy.

**314. Criminalistics III**  
Spring. 3(0-6) C J 313, approval of school.

Criminalistics techniques. Serology. Comparative micrography. Document examination. Forensic chemistry.

**315. Criminal Investigation**  
Fall, Winter. 4(4-0) C J 375.

Theory of investigation, crime scene conduct, collection and preservation of physical evidence and methods used in scientific interpretation of evidence.