906. Advances in Pattern Recognition
Fall. 3(3-2) CPS 505, CPS 586, CPS 522.
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 SYS 527 or approval of department. Interdepartmental with Electrical Engineering. Characterization of machines and programs as automata; mathematical decomposition of finite automata.

921. Advanced Computer Systems I
Fall. 3(3-0) Two graduate level courses in computer system design (hardware or software). Interdepartmental with Electrical Engineering. Models of single and multiple processors, their computational power, and measures of performance. Interconnection networks, data driven machines, and pipelines.

922. Advanced Computer Systems II
Winter. 3(3-0) CPS 921. Interdepartmental with Electrical Engineering. Design and characterization of parallel algorithms. Matching of algorithms with appropriate hardware configurations. Programming languages which support parallel computation.

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

COUNSELING, EDUCATIONAL PSYCHOLOGY AND SPECIAL EDUCATION CEP

400. Classroom Testing and Grading
(ED 488.) 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
(ED 484.) Fall, Spring, Summer. 3(3-0) Approval of department. An overview of standardized tests and sources of information about them. Selection and use of standardized tests. Interpretation of standardized test scores. Local and wide scale testing programs.

410. Instructional Design and Technology
(ED 410.) Winter, Spring, Summer. 2 to 4 credits. May enroll for a maximum of 6 credits. T E 200 or T E 200A or T E 200B or T E 200C. Students design plans for implementing instruction via systems approach and application of learning principles.

411. School Learning I
(Fall 411.) Fall, 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 412.) Fall, Winter, Spring, Summer. 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 from birth through adulthood; observation and participation in schools as an integral part of the course.

413. Mental Health of School Children
(Fall 413.) 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 promotion of mental health and resolution of behavior difficulties and evaluation of school programs on basis of their contribution to mental health.

424A. Psycho-Educational Characteristics of the Mentally Retarded
(ED 424A.) Fall. 3(3-0) CEP 460A or approval of department. Cognitive, affective and social characteristics of the mentally retarded. Implications for school learning and life adjustment. Differentiation of mental retardation from related conditions.

425B. Curriculum for the Mentally Retarded
(ED 425B.) Fall. 3(3-0) CEP 460A or approval of department. The development of curriculum for mentally retarded children and youth emphasizing current practice in pre-school through secondary school programs for educable and trainable mentally retarded.

425C. Educational Procedures for the Mentally Retarded
(ED 425C.) Fall. 3(3-0) CEP 460A or approval of department. Methods of instruction for mentally retarded children and youth, including the development of objectives, assessment of individual abilities, the development of learning skills, and the teaching of non-academic and academic skills.

426D. Education of the Severely Retarded
(ED 426D.) Fall, Winter, Spring. 3(3-0) CEP 460A. Procedures in teaching severely mentally retarded children and youth.

431A. Educational Media in Instruction
(ED 431, ED 431A.) Fall, Winter, Spring, 3(3-0) Juniors. Educational media for preservice and inservice teachers, and media specialists. Selection and utilization of filmstrips, slides, films, literature, motion picture, sound, models, radio, and television. Equipment operation acquired through self instructional laboratory. Field trips required.

431B. Basic Educational Graphics
(ED 431B.) Fall. 3(3-0) CEP 450A or approval of department. A course for teachers and prospective teachers in the selection and use of visual instructional materials.

442. 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.

445. Use of Paraprofessionals in Counseling
(ED 444.) Fall, Winter, Spring, 3(3-2) Approval of instructor. Interpersonal communication focusing on one's own interpersonal style through self study of video-recorded interviews.

450. Interpersonal Process Recall
(ED 454.) Fall, Winter, Spring. 3(3-2) Approval of instructor. Interpersonal communication focusing on one's own interpersonal style through self study of video-recorded interviews.

460A. Education of Exceptional Children
(ED 462A.) Fall, Winter, Spring, Summer. 3(3-0) Emphasis on the nature of handicapping conditions and educational needs and approaches. Includes mental retardation; emotional disturbance; visual, auditory and physical handicaps.

460B. Educational Provisions for the Physically Handicapped
(ED 462B.) Fall. 3(3-0) CEP 460A, T E 470. Facilities, programs, trends, methods, materials and terminology in education of the physically handicapped. Field trips to special classes and hospital school programs.

461. Core Seminar in Special Education
(ED 481.) Fall, Winter, Spring, 2(2-0) T E 101, CEP 460A, admission to special education, core students only. 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. 3(2-0) T E 210B. 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
(ED 482A.) Winter. 3(3-0) CEP 460A, T E 470, ASC 454. Adaptation of educational methods, materials and curriculum to the needs of individuals with severe and profound hearing impairment.
Counseling, Educational Psychology and Special Education — Descriptions of Courses

465B. Language Development for the Deaf
(ED 425B.) Fall, 3(3-0) CEP 460A, T E 470, ASC 222, ASC 454.
Theories of language development; considerations of systems in both oral and total communication; philosophies; practice in manual communication.

465C. Speech Development for the Deaf
(ED 425C.) Fall, 3(3-0) CEP 465B or concurrently.
Techniques for aiding development of intelligible speech in individuals with severe and profound hearing loss.

465D. Manual Communication I
(ED 425D.) Fall, Winter, Summer. 3(3-0). Approval of department.
Development of basic skills in finger spelling and the language of signs, with emphasis on signed English; practice in simultaneous use with spoken English.

465E. Manual Communication II
(ED 425E.) Fall, Winter, 2 to 4 credits. May retake for a maximum of 8 credits. CEP 465D.
Continued development of skills in total communication for use in educational service delivery systems. Practice in simultaneous use of speech, finger spelling, and the language of signs at an intermediate level.

465K. Field Experience: Deaf Education
(ED 490A.) Fall, Winter, 2(0-6) T E 470, CEP 465B, CEP 465C or concurrently.
Observation/participation in day classes for hearing impaired learners at elementary, secondary or post-secondary levels. Minimum 60 clock hours.

466A. Psycho-Educational Characteristics of the Emotionally Disturbed
(ED 432A.) Fall, Winter, Spring. 3(3-0) CEP 465A.
Psycho-educational characteristics of the emotionally disturbed are surveyed and evaluated. Additionally, various strategies which purport to educate the disturbed child are studied and evaluated.

466B. Remedial Practices with the Emotionally Disturbed
(ED 432B.) Fall, Winter, Summer. 3(3-0) CEP 466A.
Emphasis is on the specific learning disabilities of the emotionally disturbed, both in the area of assessment and remediation. Specific methods and materials are surveyed and described in terms of their use.

466C. Classroom Management: Emotionally Disturbed
(ED 432C.) Fall, Winter, Spring. 3(3-0) CEP 466B.
A laboratory course emphasizing curriculum, and management of the emotionally disturbed in school settings.

467K. Field Experience: Mental Retardation
(ED 490C.) Fall, Winter, Spring. 3(0-9) May retake for a maximum of 9 credits. Approval of department.
Supervised practicum in an educational program for mentally retarded learners.

469A. Psycho-Educational Evaluation of the Handicapped
(ED 424B.) Fall, Winter, Spring. 3(3-0) CEP 460A.
Screening and placement procedures. Terminology and interpretation of tests used for assessment of intelligence, aptitude, achievement, personality and interests of the handicapped.

469B. Educational Provisions for Learning Disabilities
(ED 437B.) Fall, Winter, Spring. 3(3-0) CEP 460A.
Characteristics and terminology of basic learning theories and learning disabilities. Educational programs and practices and major contributors. Field practicum with learning disabled children.

470A. Educational Provisions for the Visually Handicapped
(ED 423A.) Fall, Summer. 3(2-2) Concurrently.
The causes and effects of visual impairment; definitions, statistics and trends; history and legislation; program and services for children and adults through schools, agencies and institutions; medical and psychological aspects.

470B. Curriculum, Methods and Materials for the Visually Handicapped
(ED 423B.) Fall, Summer. 4(3-2) CEP 460A, CEP 465A.
Comprehensive curriculum essentials; required teacher competencies; and special principles of instruction. Resources, materials and methods of teaching, at the elementary school level. Concurrent laboratory experience in classrooms with visually handicapped pupils.

470C. Braille
(ED 423C.) Fall, Summer. 4(3-2) CEP 460A, ASC 454.
a laboratory course designed to teach the skills of reading and writing standard English Braille using required tools.

470D. Low Vision and Its Facilitation
(ED 423D.) Winter, Summer. 3(0-3) FSL 223.
Medical lectures and laboratory demonstrations regarding various pathologies leading to reduced vision. Visual and optical aids for utilization of residual vision. Educational implications of pathologies, reduced vision and optical aids.

470E. Daily Living Skills for Visually Handicapped Children
(ED 423E.) Fall, Summer. 3(3-0) CEP 460A.
Basic techniques for developing competencies in daily living skills including grooming, eating, orientation and mobility. Readiness activities. Use of cane as mode of travel.

470F. Communication Modifications for Visually Handicapped Children
(ED 423F.) Winter, Spring. 3(2-2) CEP 470F.
A laboratory course including Nemeth Code of Mathematics; science, music and language notations; preparation of classroom materials; establishing targets and materials. Emphasis upon instruction at the secondary level.

470J. Teaching Low Vision Skills
(ED 490F.) Fall, Winter, Spring. 1(0-3) Juniors in education of visually handicapped or blind/ deaf children.
Assisting learners with limited residual vision make maximal use of prescribed low vision aids; and interpreting the use of such aids to teachers of nonhandicapped children.

470K. Aiding Teachers of Visually Handicapped Learners
Three separate experiences aiding teachers of preschool, primary, intermediate and adolescent young adult, multi-impaired visually handicapped learners in public and residential school programs.

470L. Teaching Daily Living Skills to Visually Handicapped Learners
(ED 490L.) Fall, Winter, Spring. 1(0-3) Juniors in education of visually handicapped or blind/deaf children.
Supervised practice with visually handicapped and blind deaf learners to develop competencies in teaching orientation and mobility; and the other skills of daily living.

471A. Education of the Blind-Deaf
(ED 423G.) Fall, Winter, Spring. 3(3-2) May retake for a maximum of 9 credits. ASC 222, ASC 277, ASC 454; or concurrently.
Methods of teaching blind-deaf children including guiding principles; curriculum structure; readiness activities; sensory development; discipline; evaluation; methods of communication; speech and speech reading; and language, including language methods and principles.

471B. Teaching Optacon Reading to Blind School-Age Learners
(ED 423H.) Winter, Spring. 1(0-2)
A laboratory course emphasizing curriculum, teaching methods and materials designed to enable blind school-age learners to read print using the Optacon.

471K. Aiding Teachers of Blind/Deaf Learners
Three separate experiences aiding teachers of blind/ deaf learners in teaching low-functioning, preadolescent and primary level children.

475. Organization of Services for the Handicapped
(ED 424C.) Fall, Winter, Spring. 3(3-0) CEP 460A.
Identification and study of organizations important to the operation of special education programs including educational, state and voluntary agencies.

479. Field Experience: Special Education Core
(ED 490F.) Fall, Winter, Spring. 4(0-10) T E 101. CEP 460A, admission to special education, core students only.
Supervised practicum in an educational program for handicapped learners, taken concurrently with CEP 460A and CEP 475.
800. Principles of Educational Measurement (ED 805.) Winter, Summer. 3(3-0) CEP 401 or CEP 400; CEP 804. 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. 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 (ED 806A.) Winter. 3(3-0) CEP 401 or CEP 400 or PST 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 (ED 806B.) Fall, Summer. 3(3-0) CEP 401 or CEP 400 or PST 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 (ED 806C.) Spring. 3(3-0) CEP 400 or CEP 401, CEP 813 or PST 427A. Study of general personality structure and methods in personality assessment related to education.

803. Educational Research Methods (ED 807.) 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 (ED 808.) 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.

805. Educational Program Evaluation (ED 809.) Fall, Spring. 3(3-0) CEP 904. History and current status of program evaluation, including a review of various evaluation models, common problems of implementation and alternative evaluation designs.
830. Administration of Instructional Media Centers  
(ED 853A.) Winter. 3(3-0) CEP 831A.  
Basic 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  
(ED 831A.) Fall, Spring. 3(3-0) CEP 831A.  
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  
(ED 831B.) Winter, Spring. 3(3-0) CEP 831A or approval of department.  
Basic 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  
(ED 831C.) Fall. 3(3-0) CEP 831B or approval of department.  
Basic skills and principles of instructional unit design: objectives, task description and analysis, and evaluation of instruction.

832. Diffusion of Educational Innovations  
(ED 832.) Fall, Spring. 3(3-0) Approval of instructor.  
Operational principles, techniques, and heuristics for identifying and maintaining change in educational and training organizations.

833. Instructional Design and Technology I  
Winter, Summer. 3(3-0) Approval of instructor.  
The practice of counseling and guidance in schools, community colleges, and rehabilitation agencies.

834. Computer Applications in Education I  
(ED 834A.) Fall, Winter. 3(3-0) CEP 831A or approval of instructor.  
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.

835. Counseling Practicum I  
(ED 819B.) Winter. 3(3-0) Approval of instructor.  
Counseling practicum experience in selected schools and agencies followed by analysis and critique of these experiences through group and individual consultation with instructor.

836. Computer Assisted Instruction  
(ED 836.) Spring. 3(3-0) CEP 834.  
Teaching applications of computer in instruction including evaluation of commercial courseware, instruction in use of other languages (PILOT, AUTHOR1, Talk/Tutor), and the process of development of CAL packages.

837. Instructional Product Development  
(ED 837.) Winter. 3(3-0) CEP 410 or 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.

838. Instructional Design and Technology II  
Spring, Summer. 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.

839. Counseling Practice  
(ED 839A.) Fall, Summer. 3(3-0) Admission to M.A. Counseling Program.  
An overview of the impact areas of job placement for the handicapped. Focus on self-appraisal of on placement models, state agency approaches, pertinent legislation, and employer, counselor, and client perspectives.

840A. Introduction to Counseling Theory  
(ED 840B.) Fall, Summer. 3(3-0) Approval of instructor.  
Selected theories of counseling with special attention to the application of theories of learning in the counseling process.

840B. The Counseling Process  
(ED 840B.) Winter, Summer. 3(3-0) CEP 840A, CEP 840B.  
The use of occupational, educational and social information in counseling interviews and in guidance programs.

840C. The Guidance Information Service  
(ED 840C.) Winter. 3(3-0) CEP 840A.  
The process of obtaining counseling data and providing counseling interviews.

840D. Counseling and Consulting Strategies  
(ED 840D.) Winter. 3(3-0) CEP 840A.  
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.

840E. Counseling Practicum II  
(ED 819C.) Fall, Winter. 3(3-0) CEP 840C, CEP 840D.  
Supervised counseling experiences in selected schools and agencies followed by analysis and critique of these experiences through group and individual consultation with instructor.

840F. Counseling Practicum II  
(ED 819C.) Fall, Winter, Spring. 3(3-0) CEP 840F.  
Continuation of CEP 840F.

840J. Group Procedures in Counseling  
(ED 840J.) Spring. 3(3-0) CEP 840J.  
An examination of theories of group counseling with special attention to goal-directed groups.

840K. Research in Counseling  
(ED 840K.) 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.

840M. Development and Administration of Counseling Services  
(ED 840M.) CEP 840M.  
Identifying and studying policy issues in counseling, service development strategies, administrative issues, management and supervisory practices. Students will write a program proposal or issue analysis.

842A. Introduction to Rehabilitation Counseling  
(ED 842A.) Fall. 3(3-0) Placement in rehabilitation counseling majors only.  
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  
(ED 842B.) Spring. 3(3-0) CEP 842A.  
An overview of the impact of job placement for the handicapped. Focus on self-appraisal of on placement models, state agency approaches, pertinent legislation, and employer, counselor, and client perspectives.

842C. Assessing Vocational Potential  
(ED 842C.) Spring. 3(3-0) CEP 842B.  
Techniques for assessing the vocational potential of disabled individuals including use of vocational tests, medical information, and occupational information for an integrated vocational appraisal.

842D. Career Development and Services  
(ED 842D.) Fall. 3(3-0) CEP 842C.  
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  
(ED 842E.) Winter. 3(3-0) CEP 842D.  
Concurrent or approval of department.  
Individual study and research related to an aspect of rehabilitation.
842F. **International Aspects of Rehabilitation and Special Education**  
(ED 815K.) Fall of odd-numbered years. 3 credits. May reenroll for a maximum of 6 credits.  
International dimensions of rehabilitation and special education including developmental perspectives, current status and issues in the field.

842G. **Vocational Evaluation in Rehabilitation**  
(ED 815L.) 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.

842H. **Legal Rights of Handicapped People and Their Counselors**  
(ED 815M.) Spring of even-numbered years. 3(3-0) CEP 842A.  
Legal issues important to physically and mentally handicapped people.

842J. **Rehabilitation Internship**  
(ED 815F.) Fall, Winter, Spring, Summer. 3 to 21 credits. May reenroll for a maximum of 21 credits. CEP 840F. Approval of instructor.  
Supervised graduate internship in rehabilitation counseling.

842K. **Independent Living in Rehabilitation**  
Spring of odd-numbered years. 3(3-0) Approval of instructor.  
Independent living including social and political implications, current status and related issues.

842L. **Leadership in Rehabilitation Counseling**  
Fall. 3(3-0) CEP 840A or CEP 842A.  
Theoretical and practical approaches to management through leadership in the rehabilitation counseling area including management projects.

842M. **Psycho-Social Aspects of Disability**  
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.

842S. **Introduction to Rehabilitation and Special Education in the United States**  
(ED 802C.) Winter. 3(3-0) Approval of instructor.  
Overview of rehabilitation and special education programs in the United States. Emphasis will be given to historical development, current status, and future directions of services for handicapped persons.

844A. **Introduction to Urban Counseling**  
(ED 817A.) Fall. 3(3-0) CEP 840A. CEP 840B concurrently.  
Problems—health, socioeconomic, economic, educational, legal, vocational—as manifested by urban residents and their resolution through counseling. Emphasis on systems and personal change mechanisms.

844B. **Systemic Counseling**  
(ED 817B.) 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.

844C. **Urban Counseling Practicum**  
(ED 817C.) 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.

844D. **Urban Career Development System Analysis**  
(ED 817D.) 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**  
(ED 817E.) 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.

844F. **Sexism, Racism and Alienation in the Therapeutic Process**  
(ED 817F.) 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**  
(ED 817G.) 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.

851A. **Development of Self-Understanding**  
(ED 886F.) 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**  
Fall, Spring, 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**  
(ED 869K.) 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.

865A. **Issues in Education of Deaf**  
(ED 889A.) Spring. 3(3-0) Graduate students. Designated for graduate non-majors seeking to expand information and understanding of severe and profound hearing loss; educational implications, programs.

865K. **Field Experience: Education of Deaf**  
(ED 889A.) Spring. 2 to 8 credits. May reenroll for a maximum of 10 credits. Graduate students, prior teaching or clinical experience.  
Supervised graduate field experience in educational programs for the deaf and hearing impaired.

866A. **Issues in Education of Emotionally Impaired**  
(ED 888B.) Summer. 3(3-0) Special Education majors only, approval of instructor.  
This seminar focuses on crucial issues related to programming for emotionally impaired students.

866F. **Advanced Methods and Materials in Special Education: Emotionally Impaired**  
(ED 829B.) Fall. 3(3-0) CEP 466A, CEP 466B, CEP 466C.  
Review and analysis of recent research findings, intervention strategies, and curricular developments applicable to emotionally impaired children and youth.

866K. **Field Experience: Emotionally Impaired**  
(ED 890B.) Fall, Winter, Spring, Summer of odd-numbered years. 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 field experience in educational programs for the emotionally impaired.

866M. **Independent Study: Emotional Impairment**  
(ED 891B.) 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.

867A. **Issues in Mental Retardation**  
(ED 888C.) Spring. 3(3-0) Approval of department.  
Current issues in the area of mental retardation are identified, researched, and discussed.
867J. Advanced Methods and Materials in Special Education: Mentally Handicapped Children and Youth (ED 832D.) Winter, 3(3-0) CEP 428A, CEP 428B, CEP 428C.

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. Field Experience: Mental Retardation (ED 890C.) Fall, Winter, Spring. 1 to 12 credits. May reenroll for a maximum of 12 credits. Approval of instructor.

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

867M. Independent Study: Mental Retardation (ED 891C.) Spring, 1 to 12 credits. May reenroll for a maximum of 12 credits. Approval of instructor.

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

868A. Advanced Methods and Materials in Special Education: Pre-Vocational/Vocational Curriculum for SEI/Autistic Students (ED 832F.) Fall, 3(3-0) Approval of instructor.

Overview of autism and rehabilitation services. Assessment procedures, placement criteria and pre-vocational/vocational curriculum. Development of severely emotionally impaired/autistic students.

868B. Advanced Methods and Materials in Special Education: The Severely Impaired/Autistic Student in the Home and School (ED 832H.) 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 (ED 832I.) 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.

869A. Introduction to Learning Disabilities (ED 880J.) Fall, 3(3-0) CEP 469A.

Comprehensive introduction to the field of learning disabilities including theory, issues, programs, characteristics, terminology, and major components of the law.

869B. Psychological Diagnosis of the Handicapped (ED 880D.) Fall, Winter, 3(3-0) CEP 469A, CEP 469B 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.

869C. Advanced Methods and Materials in Special Education: Learning Disabilities (ED 882C.) Winter, Spring, Summer of odd-numbered years. 3(3-0) CEP 469A, CEP 469B or concurrently. Approaches to remediation of learning disabilities in the classroom. Identification, evaluation, methods, materials, aids, and programs.

869D. Teacher Consultant Skills for Mainstreamed Children (ED 886.) Spring, 3(3-0) CEP 469B.

Two years special education teaching experience or approval of instructor. Consultant skills including role identification, problem-solving techniques, individual and group communication processes, interpersonal activities, school survival and study skills curriculum.

869E. The Learning Disabled Adolescent (ED 885N.) Winter, 3(3-0) CEP 469A, CEP 469B 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.

869F. Learning Disabilities Practicum (ED 885K.) Fall, Winter, Spring, Summer. 3 to 12 credits. May reenroll for a maximum of 12 credits. Approval of instructor.

Supervised practice working with learning disabled students in educational programs for the learning disabled and in a clinic setting on campus. Applying skills learned in related courses.

869H. Independent Study: Learning Disabilities (ED 891E.) Fall, 3 to 12 credits. May reenroll for a maximum of 12 credits. CEP 469B, CEP 469C.

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.

870A. Field Experience: Teaching Visually Handicapped Learners (ED 889D.) Winter, Spring, 3 to 12 credits. May reenroll for a maximum of 18 credits. Approval of department.

Supervised graduate field experience in educational programs for the visually handicapped.

870B. Independent Study: Visually Handicapped or Blind/Deaf (ED 891D.) Spring of odd-numbered years. 3 to 12 credits. May reenroll for a maximum of 12 credits.

Supervised study in visually handicapped or blind/deaf conducted according to a written agreement stating the problem or topical area of study, the methodology and the product of the study.

871. Field Experience: Teaching Blind/Deaf Learners (ED 890E.) Winter, Spring, 3 to 12 credits. May reenroll for a maximum of 18 credits. Approval of department.

Supervised graduate field experience in educational programs for the blind/deaf.

872. Analysis of Special Education Research (ED 890E.) Winter of odd-numbered years. 3(3-0) Approval of department.

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

873. Parent-Teacher Relationships in Special Education (ED 888F.) Winter, Spring, 3(3-0) Approval of department.

Development of skills for parent-teacher conferences and consultant-teacher relationships. Strategies for managing home-school relationships in special education. Special problems of parents of handicapped children.

874. Community Agency Programs for the Handicapped (ED 889C., 889C.) Summer of odd-numbered years. 3(3-0) Approval of department.

Various official and voluntary agencies and organizations which offer programs and services for the handicapped and the relationship of these programs to special education.

874A. Special Education Administrative Practices and Problems (ED 890F.) Fall of odd-numbered years. 3(3-0) Approval of instructor.

Major problems in administering special education programs. Current practices of administrators implementing federal and state mandated programs.

875B. Special Education Finance (ED 889H.) 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 (ED 889P.) Spring, 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 (ED 883D.) Winter, Summer. 3(3-0) Approval of department.

Designed to promote the study of application of theory and research to specialized programs areas. Persons will normally select the section allocated 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.
Descriptions — Counseling, Educational Psychology and Special Education

**Courses**

879. **Independent Study: Special Education**

(ED 891F.) Fall, 2 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.

881. **Workshops in Counseling, Educational Psychology and Special Education**

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

Laboratory approach which provides opportunities for experienced educational personnel to concentrate their study on common problems in counseling, educational psychology, or special education.

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

Fall, Winter, Spring, Summer, 1 to 8 credits. May reenroll for a maximum of 15 credits. 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**

(ED 965A.) Spring of odd-numbered years. 3(3-0) CEP 800, CEP 905.

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

900B. **Problems of Educational Measurement**

(ED 965B.) Spring of odd-numbered years. 3(3-0) CEP 800, CEP 905.

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**

(ED 965D.) Winter, 3(2-3) Basic course in standardized tests and measurements. EAC 823E.

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 even-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**

(ED 965E., EAC 951G., EAD 951G.) Fall, Spring. 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 consultation with the instructor concerning system or building data.

902A. **Personality Assessment I**

(ED 966A.) Winter. 3(3-0) PST 425, PSY 827, PSY 529, PSY 531.

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

902B. **Personality Assessment II**

Spring. 3(3-0) CEP 902A, PSY 425, PSY 427.

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**

(ED 869.) 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.


(ED 968B.) Fall, Winter, Summer, 4(4-0) CEP 804 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**

(ED 969C.) Winter, Spring. 4(4-0) CEP 900.

Theory and practice in the design, analysis and interpretation of experimental and quasi-experimental research.

907A. **Advanced Research Methods in Education**

(ED 967.) Fall. 4(4-0) CEP 803, CEP 904 or CEP 401.

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**

(ED 963E.) 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.

911. **Educational Psychology Seminar**

(ED 911.) Fall. Winter, Spring. 3(3-0)

May reenroll for a maximum of 15 credits. Doctoral candidate 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.


(ED 912.) Winter of odd-numbered years. 3(3-0) CEP 911 or PST 810; CEP 904, CEP 905.

Review existing research and methods for study of individual decision making, judgment and problem solving in a variety of fields — education, medicine, clinical psychology, business, etc., and their implications for education and training.

913. **Seminar in Research on Teaching**

(ED 913., T E 924.) 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, LSN 411 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.

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**

(ED 931A.) 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
(ED 931B.) 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.

931C. Seminar in Instructional Technology: Research and Development
(ED 931C.) Spring. 3(3-0) Approval of department.
Analysis and appraisal of student's dissertation proposals and reports on surveys of related literature.

935. Seminar in Principles and Practice of Instructional Consultation
(ED 935.) Spring. 3(3-6) CEP 931A, CEP 931B, CEP 410, approval of instructor.

939. Policy and Legal Issues in Testing
Winter. 3(3-0) CEP 401. Interdepartmental 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.

944C. Counseling Supervision in Urban Setting
(ED 917C.) Spring. 3(1-12) May reenroll for a maximum of 9 credits. CEP 944C (12 credits).
Development of supervisory skills in relation to the systemic counseling model with urban settings as a focus. Practice in supervising master's level students in urban Counseling field experiences.

945A. Counseling Theories
(ED 980.) Fall. 3(3-0) Approval of instructor.
Survey of counseling theories and research with emphasis on current issues which have implications for counseling practice or for counselor education.

945B. Psychology of Vocational Development
(ED 884.) Winter. 3(3-0) Approval of instructor.
Relationship between psychological concepts and vocational development.

949A. Social Development and Counseling Psychology
(ED 960A.) Spring. 3(3-0) Approval of instructor.
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
(ED 860B.) Fall. 3(3-0) CEP 949A or approval of instructor.
Principles of learning and their application to the counseling process.

949C. Physiological Measurement in Counseling Psychology
(ED 986.) Spring. 3(2-2) CEP 450, approval of department.
Physiological measurement in counseling psychology treatment, training, and research.

950. Interpersonal Process Recall
(ED 814A, 839A.) Fall. 3(3-2) Doctoral candidates in counseling psychology or approval of instructor.
A structured training model designed to teach facilitation of interpersonal communication through learning communication skills, examining interpersonal stress, and self-study of one of one's own videoencoded behavior. Theory and research issues will be presented.

981. Group Processes in Counseling Psychology
(ED 986.) Spring. 3(3-0) Graduate students.
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.

982. Research in Counseling Psychology
(ED 932.) Fall. 3(3-0) CEP 805.
Criticism, interpretation and design of counseling research.

985. Counseling Pre-Practicum
(ED 985.) Spring. 3(0-6) Doctoral status in college counseling or related area and approval of department.
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.

986A. Counseling Practicum I
(ED 989A.) Fall. Spring. 3(0-6) CEP 955 or approval of department.
Supervised experience working with college students in a counseling relationship. Group discussions, group supervision and observation of counseling interviews, and individual supervision.

986B. Counseling Practicum II
(ED 985B.) Winter. 3(0-6) CEP 955A.
Supervised experience working with college students in a counseling relationship. Group discussions, group supervision and observation of counseling interviews, and individual supervision.

986C. Counseling Practicum III
(ED 998C.) Spring. 3(0-6) CEP 955B.
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.

987B. Laboratory and Field Experience in Counseling Psychology
(ED 999.) Fall. Spring. 3(2-4) Students in counseling psychology.
Applied aspects of counseling through case conferences and presentations of cases by representatives of various counseling orientations.

975A. Field Experience: Special Education Administration Simulation
(ED 990A.) Spring. 3(0-9) Approval of instructor.
Supervised graduate practicum in administration of the Special Education program at a simulated school district.

975B. Field Experience: Special Education Administration
(ED 989B.) Fall, Spring. 3 to 12 credits. May reenroll for a maximum of 15 credits. Approval of department.
Supervised graduate practicum or internship in special education administration.

982. Seminars in Counseling, Educational Psychology and Special Education
Fall, Winter, Spring, Summer. 1 to 9 credits. May reenroll for a maximum of 15 credits. 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

CRIMINAL JUSTICE

College of Social Science

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

312. Criminalistics I
Fall. 3(3-0) Criminalistics majors.
Criminalistics laboratory techniques. Photography, crime scene recording, reproduction of evidence, latent fingerprints.