

Counseling, Educational Psychology and Special Education—CEP

- 961 Perspectives on Diversity in Counseling Psychology**
Spring. 4(3-4) R: Open only to Ed.S. or Ph.D. students in the Counseling Psychology or Counselor Education or Rehabilitation Counselor Education or School Psychology major.
Cultural, gender, and disability dynamics as they affect human functioning and counseling practices. Strategies and techniques for multicultural perspectives in counseling.
- 962 Psychology of Career Development**
Spring. 3(3-0) RB: (CEP 864) R: Open only to Ph.D. students in the Counseling Psychology or Counselor Education or Rehabilitation Counselor Education major.
Theories of career choice and development. Psychological processes underlying vocational behavior.
- 963 Ethics in Counseling Psychology**
Spring. 3(3-0) R: Open only to Ed.S. or Ph.D. students in the Counseling Psychology or Counselor Education or Rehabilitation Counselor Education or School Psychology major.
Traditional and contemporary issues in theory, research, practice and training with a focus on ethics including ethical theory, principles, standards, codes of conduct, and legal issues.
- 964 Counseling Foundations**
Fall of odd years. 3(3-0) RB: (CEP 960 or concurrently) R: Open only to Ph.D. students in the Counselor Education or Rehabilitation Counselor Education major.
Foundations and practice of rehabilitation and school counseling. Pre-service preparation issues. Professional and policy implications.
- 965 Current Research and Issues in Counseling**
Fall of even years. 3(3-0) RB: (CEP 964) R: Open only to Ph.D. students in the Counselor Education or Rehabilitation Counselor Education major.
Practice and research issues in rehabilitation counseling and school counseling.
- 966 Psychological Diagnosis and Assessment I**
Fall. 3(3-0) RB: (CEP 960) R: Open only to Ph.D. students in the Counseling Psychology major.
Principles of psychological testing and measurement. Principles of clinical interviewing. Cognitive and intellectual assessment. Psychological report writing.
- 967 Psychological Diagnosis and Assessment II**
Spring. 3(3-0) RB: (CEP 966) R: Open only to Ph.D. students in the Counseling Psychology major. C: CEP 994B concurrently.
Diagnostic categories, mental status examination, differential diagnosis, and objective and projective psychological assessment.
- 968 Research Methods in Counseling Psychology**
Fall. 3(3-0) RB: (CEP 933) R: Open only to Ph.D. students in the Counseling Psychology or Rehabilitation Counselor Education or Counselor Education major.
Research topics and designs in counseling psychology, with emphasis on the development of a viable research proposal.
- 969 Supervision of Counseling Psychologists**
Spring. 3(2-3) RB: (CEP 967 and CEP 994B) R: Open only to Ph.D. students in the Counseling Psychology major.
Theoretical, empirical and practical aspects of the supervisory relationship. Process and outcome variables.
- 971 Teaching Practicum in Counselor Education**
Fall of even years. 3(3-2) P:M: (CEP 970) R: Open only to doctoral students in the Counseling Psychology or Counselor Education or Rehabilitation Counselor Education or School Psychology major.
Development of personalized teaching portfolios. Preparation of training modules that address critical issues in counseling and teaching evaluation.
- 975 Psychological Assessment of Cognitive Dysfunction**
Spring of even years. 3(3-0) RB: (CEP 966 or CEP 880) R: Open only to doctoral or Educational Specialist students in the Department of Counseling, Educational Psychology and Special Education.
Human neuroanatomy and the functional organization of the central nervous system. Cognitive and behavioral sequelae of neurological disabilities. Neuropsychological assessment of intellect, memory, learning abilities, visuospatial functioning, and problem solving in children and adults.
- 982 Seminar in Counseling, Educational Psychology and Special Education**
Fall, Spring, Summer. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. R: Open only to Ph.D. students in the College of Education.
Seminars in the various fields of emphasis in counseling, educational psychology, and special education.
- 990 Independent Study**
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 9 credits in all enrollments for this course. R: Open only to Ph.D. students.
Individual or small group study, guided by a faculty member, in the areas of Counseling, Educational Psychology and Special Education.
- 991A Special Topics in Learning, Technology and Culture**
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 9 credits in all enrollments for this course. R: Open only to doctoral students in the College of Education.
Special topics in learning, technology, and culture in education.
- 991B Special Topics in Educational Statistics and Research Design**
Fall, Spring. 4(4-0) A student may earn a maximum of 16 credits in all enrollments for this course. RB: (CEP 933) R: Open only to Ph.D. students.
Special topics in educational statistics and research design.
- 994A Counseling Psychology Practicum I**
Fall. 3(0-9) RB: (CEP 960) R: Open only to Ph.D. students in the Counseling Psychology major.
Supervised practice in counseling, assessment, diagnosis and related professional activities within an agency providing counseling and psychological services.
- 994B Counseling Psychology Practicum II**
Spring. 3(0-9) P:M: (CEP 994A) R: Open only to Ph.D. students in the Counseling Psychology major.
Intermediate supervised practice in counseling, assessment, diagnosis and related professional activities within an agency providing counseling and psychological services.
- 994C Advanced Practicum in Counseling Psychology**
Spring. 3(0-9) P:M: (CEP 994B) R: Open only to Ph.D. students in the Counseling Psychology major.
Client conceptualization, assessment, intervention design, ethical and professional development issues, supervision, and consultation.
- 994D Laboratory and Field Experience in Special Education**
Fall, Spring. 3(1-6) R: Open only to Ph.D. students in Special Education. Approval of department.
Supervised experience working with students with disabilities in K-12 classrooms, for students who need additional experience in teaching environments.
- 995 Practicum in Research Design and Data Analysis**
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 3 credits in all enrollments for this course. RB: (CEP 933) R: Open only to doctoral students in the College of Education.
Supervised research practicum. Design, execution, analysis, presentation, critique, and revision of research projects.
- 999 Doctoral Dissertation Research**
Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 100 credits in all enrollments for this course. R: Open only to doctoral students in the Department of Counseling, Educational Psychology and Special Education.
Doctoral dissertation research.

CRIMINAL JUSTICE CJ

School of Criminal Justice College of Social Science

- 110 Introduction to Criminal Justice**
Fall, Spring. 4(4-0)
Description and analysis of agencies and processes involved in administration of justice in the United States.
- 210 Introduction to Forensic Science**
Fall. 4(4-0) RB: A background in general chemistry and biology.
Techniques of crime scene search. Collection and preservation of physical evidence. Class and individual scientific tests. Rules of evidence governing admissibility of physical evidence. Expert testimony.

- 220 Criminology**
Fall, Spring. 4(4-0) Interdepartmental with Sociology. RB: (CJ 110 or SOC 100) R: Open only to students in the Criminal Justice or Sociology major or approval of school.
Introduction to the socio-legal foundation of crime. Crime typology and measurement procedures. Theory and public policy. Societal responses to crime and criminals.
- 292 Methods of Criminal Justice Research**
Fall, Spring. 4(4-0) RB: (CJ 220) R: Not open to freshmen. Open only to students in the School of Criminal Justice.
Logic, design, analysis and ethical principles in criminal justice research. Indicators of crime and its control.
- 335 Police Process**
Fall, Spring. 4(4-0) RB: (CJ 292) R: Open only to juniors or seniors in the Criminal Justice major.
Roles, responsibilities, issues, and trends pertinent to contemporary law enforcement organizations in contemporary society.
- 355 Juvenile Justice Process**
Fall, Spring. 4(4-0) P:M: (CJ 220) R: Open only to juniors or seniors in the Criminal Justice major.
The juvenile justice system and law. Theories of juvenile delinquency and deviance. Sociological, psychological, and anthropological perspectives.
- 365 Corrections Process**
Fall, Spring. 4(4-0) RB: (CJ 292) R: Open only to juniors or seniors in the Criminal Justice major.
Historical and contemporary views of offender management and treatment. Corrections system operation. Effects of institutionalization. Alternatives to incarceration.
- 375 Criminal Law Process**
Fall, Spring. 4(4-0) RB: (CJ 110 or concurrently and CJ 292) R: Open only to juniors or seniors.
Administration of criminal law. Investigation, prosecution, adjudication, and sentencing. Constitutional safeguards and legal controls on official action.
- 385 Introduction to Private Security**
Fall. 3(3-0) R: Not open to freshmen or sophomores.
Relationships of private protective services with public law enforcement. Individuals, businesses, and governments providing prevention, protection, investigation and disaster recovery services. Protection of persons, property, and information.
- 400H Honors Study**
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to Honors College seniors and approval of school.
Faculty-supervised group or individual study dealing with a phase of the criminal justice system.
- 421 Minorities, Crime, and Social Policy**
Spring of odd years. 3(3-0) P:M: (CJ 110 or SOC 100) R: Open only to juniors or seniors.
A socio-historical analysis of the effects of race and ethnicity on legitimate social opportunities, criminal behavior, victimization, and differential judicial processing. Analysis of the impact of assimilation and acculturation on criminal behavior, victimization, and criminal justice processes.
- 422 Comparative and Historical Criminal Justice**
Fall of odd years. 3(3-0) RB: (CJ 110) R: Open only to juniors or seniors in the Criminal Justice major.
Comparative study of criminal justice systems. Theories, types, and effects of intervention.
- 425 Women and Criminal Justice**
Spring of even years. 3(3-0) Interdepartmental with Women's Studies. RB: (CJ 220 or WS 201) R: Open only to juniors or seniors.
Theories on women's victimization and criminality. Women's experiences as victims, offenders, and criminal justice employees. Laws and their effects on the rights of women in the criminal justice system.
- 432 Community Policing**
Spring. 3(3-0) RB: (CJ 335) R: Open only to juniors or seniors in the Criminal Justice major.
Community policing philosophy, applications, issues, and contemporary research. Community policing models.
- 433 Law Enforcement Intelligence Operations**
Spring. 3(3-0) RB: (CJ 335) R: Open only to juniors or seniors in the Criminal Justice major.
Law enforcement intelligence as an analytic tool for case development and resource allocation. Historical, ethical, legal, and operational issues affecting current practice.
- 434 Police Administration (W)**
Fall. 3(3-0) P:M: Completion of Tier I writing requirement. RB: (CJ 335) R: Open only to seniors in the Criminal Justice major.
Organizational theory, leadership, communications, and labor relations in police administration. Historical and legal perspectives.
- 435 Investigation Procedures**
Fall. 3(3-0) RB: (CJ 375) R: Open only to seniors in the Criminal Justice major.
Laws of evidence controlling investigative procedures. Crime scene concerns. Multi-agency investigation.
- 455 Delinquency and Treatment Approaches**
Spring. 3(3-0) RB: (CJ 355) R: Open only to juniors or seniors in the Criminal Justice major.
Investigation and evaluation of delinquency. Prevention programs and treatment approaches. Implementation and assessments of correctional and community intervention strategies in agency settings.
- 456 Criminal Careers and Career Criminals (W)**
Spring. 3(3-0) P:M: Completion of Tier I writing requirement. RB: (CJ 355 or CJ 365) R: Open only to seniors in the Criminal Justice major.
Types of juvenile and adult criminal careers. Extent, etiology, control, and treatment of selected offender types. Process of criminal career development.
- 465 Correctional Programming and Analysis**
Spring. 3(3-0) RB: (CJ 355 or CJ 365) R: Open only to juniors or seniors in Criminal Justice.
Contemporary institutional and community corrections programs. Research on adult and juvenile crime prevention, diversion, and treatment programs.
- 466 Corrections Organizations and Systems (W)**
Fall. 3(3-0) P:M: Completion of Tier I writing requirement. RB: (CJ 355 or CJ 365) R: Open only to seniors in the Criminal Justice major.
Management of correctional organizations. Interactions between correctional organizations and their political and cultural environments.
- 471 Law of Corrections**
Fall of odd years. 3(3-0) RB: (CJ 375) R: Open only to juniors or seniors in the Criminal Justice major.
Constitutional limitations and the impact of law on correctional practice. Due process, prisoners' rights, and parole and probation.
- 474 Law and Criminal Justice Policy**
Spring. 4(4-0) RB: (CJ 375) R: Open only to juniors or seniors in the Criminal Justice or Interdisciplinary Studies in Social Science major.
Impact of law on police practices, court processes, and corrections institutions and programs. Development, implementation, and evaluation of judicial policies.
- 485 Asset Protection Management (W)**
Spring. 3(3-0) P:M: Completion of Tier I writing requirement. RB: (CJ 385) R: Open only to seniors in the Criminal Justice major.
Risk analysis, security surveys, and audits to control losses due to crime, errors, and safety and environmental hazards. Management of asset protection and loss prevention programs in business, industry, and government.
- 490 Independent Study**
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. RB: (CJ 335 and CJ 355 and CJ 365 and CJ 375) R: Open only to juniors or seniors in the Criminal Justice major. Approval of school.
Individual study in fields of criminal justice, under direct supervision of a faculty member.
- 491 Topics in Criminal Justice**
Fall, Spring. 2 to 4 credits. A student may earn a maximum of 10 credits in all enrollments for this course. RB: (CJ 292) R: Open only to juniors or seniors in the Criminal Justice major. Approval of school.
Special issues in criminal justice.
- 494 Criminal Justice Practicum**
Fall, Spring, Summer. 3 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course. RB: (CJ 335 and CJ 355 and CJ 365 and CJ 375) R: Open only to juniors or seniors in the Criminal Justice major. Approval of school.
Observation, participation and study in selected criminal justice agencies.
- 801 Crime Causation, Prevention, and Control**
Spring. 3(3-0) R: Open only to graduate students in Criminal Justice.
Theories of crime causation. Translation of theory to policy.

Criminal Justice—CJ

- 805 Survey in Forensic Science**
Fall. 4(4-0) R: Open only to students in the Forensic Science major.
Scientific analysis of physical evidence. Four major aspects of physical evidence using real criminal and civil cases: generation of physical evidence by criminal activity; collection and preservation of physical evidence; analysis of physical evidence by forensic science laboratory; presentation of scientific expert testimony in court.
- 809 Issues in Criminal Justice**
Fall, Spring. 2 to 4 credits. A student may earn a maximum of 10 credits in all enrollments for this course. R: Open only to master's students in the School of Criminal Justice or to doctoral students in the Social Science-Criminal Justice major.
Special issues in criminal justice research and management.
- 810 Proseminar in Criminal Justice**
Fall. 3(3-0) R: Open only to master's students in the School of Criminal Justice or to doctoral students in the Social Science-Criminal Justice major.
Survey of classical and recent literature in criminal justice. Trends and issues that transcend the components of the criminal justice system.
- 811 Design and Analysis in Criminal Justice Research**
Fall. 3(3-0) R: Open only to master's students in the School of Criminal Justice or to doctoral students in the Social Science-Criminal Justice major.
Scientific methods in criminal justice research. Design, data collection and analysis, interpretation of findings, and ethical concerns. Computer use in data analysis.
- 812 Criminal Justice Management Seminar**
Fall. 3(3-0) R: Open only to master's students in the School of Criminal Justice or to doctoral students in the Social Science-Criminal Justice major.
Organization theory and behavior for the criminal justice agency. Organization and policy planning, budgeting, forecasting, human resource management, and project implementation.
- 814 Seminar in Management Topics**
Fall of odd years. 3(3-0) R: Open only to graduate students in the School of Criminal Justice or the Social Science-Criminal Justice major.
Critical application of selected analytical tools to managing justice agencies. Human and financial resources. Organizational design. Productivity measurement and enhancement. Resource acquisition and allocation.
- 815 Proseminar in Criminal Investigation**
Spring. 3(3-0) RB: (CJ 811) R: Open only to master's students in the School of Criminal Justice or to doctoral students in the Social Science-Criminal Justice major.
Research on the criminal justice process. Investigation and role of evidence in the administration of justice. Ethical issues.
- 817 Law and Forensic Science**
Spring. 2(2-0)
Legal aspects of forensic science. Adjudicative process, admissibility of scientific evidence, laboratory reports, hearsay, relevant case materials and expert testimony.
- 819 Forensic Analysis of Drugs and Alcohol**
Fall. 3(1-5) R: Open only to graduate students in the School of Criminal Justice.
Techniques and processes in analysis of physical evidence including spectroscopy, chromatography, microscopy. Emphasis on controlled substances.
- 820 Forensic Chemistry and Microscopic Evidence**
Spring. 3(1-5) RB: (CJ 819) R: Open only to graduate students in the School of Criminal Justice.
Continuation of CJ 819. Analysis of trace evidence including hairs and fibers, paints and coatings, explosives and fire residues, glass and soil.
- 824 Forensic Serology**
Fall. 3(2-4)
Identification of body fluids of forensic interest, including blood, semen, and saliva. Sources of false positive and negative results.
- 825 DNA Profiling**
Spring. 3(2-4)
DNA profiling. Nuclear and mitochondrial DNA analysis of blood, semen, hair, saliva and other tissues of forensic interest.
- 835 Managing Police Organizations**
Spring of odd years. 3(3-0) RB: (CJ 810) R: Open only to master's students in the School of Criminal Justice or to doctoral students in the Criminal Justice major.
Issues and practices in police management. Management philosophy and personnel management.
- 836 Assessment of Police Policies and Operations**
Spring of even years. 3(3-0) RB: (CJ 835) R: Open only to master's students in the School of Criminal Justice or to doctoral students in the Doctor of Philosophy Degree in Criminal Justice.
Recent policy-related research and its application to the deployment of human resources.
- 865 Adult Corrections**
Fall of odd years. 3(3-0) R: Open only to master's students in the School of Criminal Justice or to doctoral students in the Doctor of Philosophy Degree in Criminal Justice.
Traditional and contemporary adult correctional practices. Social, political, economic, and organizational factors affecting correctional policies.
- 866 Adult and Juvenile Corrections Programs**
Fall of even years. 3(3-0) RB: (CJ 865) R: Open only to master's students in the School of Criminal Justice or to doctoral students in the Criminal Justice major.
Adult and juvenile crime prevention and correctional programs. Application of research findings to management issues.
- 873 Legal Issues in Criminal Justice**
Spring of even years. 3(3-0) R: Open only to master's students in the School of Criminal Justice or to doctoral students in the Doctor of Philosophy Degree in Criminal Justice.
Law as an instrument of social control. Legal basis of criminal law and criminal justice policies. Legal limitations on criminal justice institutions and policies.
- 885 Security Management**
Fall. 3(3-0) RB: (CJ 811 or concurrently) R: Open only to master's students in the School of Criminal Justice or to doctoral students in the Social Science-Criminal Justice major.
Organization and management of security operations in business, industry and government.
- 886 Security Administration**
Spring. 3(3-0) R: Open only to master's students in the School of Criminal Justice or to doctoral students in the Social Science-Criminal Justice major.
Administrative and quantitative techniques for security operations. Statistical analyses. Analysis of financial statements. Operations research and computer techniques.
- 887 Quantitative Methods in Criminal Justice Research**
Spring. 3(3-0) RB: (CJ 811) R: Open only to master's students in the School of Criminal Justice or to doctoral students in the Social Science-Criminal Justice major.
Descriptive and inferential statistics and computer use in criminal justice research.
- 890 Independent Study**
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Open only to master's students in the School of Criminal Justice or to doctoral students in the Criminal Justice major. Approval of school.
Individual research and writing under faculty supervision.
- 894 Practicum**
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to master's students in the School of Criminal Justice or to doctoral students in the Social Science-Criminal Justice major. Approval of school.
Observation, study, and work in selected criminal justice agencies. Participation in domestic and foreign criminal justice systems.
- 896 Policy Analysis under Conditions of Change**
Spring. 3(3-0) RB: (CJ 811) R: Open only to master's students in the School of Criminal Justice or to doctoral students in the Social Science-Criminal Justice major.
Methods of policy analysis in criminal justice settings. Policy analysis for the formulation, adoption and implementation of changes.
- 899 Master's Thesis Research**
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Open only to master's students in the School of Criminal Justice or to doctoral students in the Social Science-Criminal Justice major.
Planned research and writing directed by student's thesis committee.
- 901 Seminar in Contemporary Criminal Justice Theory**
Fall. 3(3-0) R: Open only to graduate students in Criminal Justice or in Social Science-Criminal Justice.
Theoretical perspectives and issues in criminal justice and criminology

902 Seminar in Criminal Justice Systems
 Spring of even years. 3(3-0) R: Open only to graduate students in Criminal Justice or in Social Science-Criminal Justice.
 Contemporary issues in the criminal justice system.

903 Research Utilization in Criminal Justice
 Spring of odd years. 3(3-0) R: Open only to graduate students in Criminal Justice or in Social Science-Criminal Justice.
 Research application in criminal justice theory and practice.

904 Criminal Justice Organizations and Processes
 Spring. 3(3-0) R: Open only to graduate students in Criminal Justice.
 Theoretical perspectives on organizations and processes in criminal justice. Evaluation of organizational performance in justice agencies.

905 Law and Society
 Fall. 3(3-0) R: Open only to graduate students in Criminal Justice.
 Theoretical perspectives on law. Impact of law on society and the criminal justice system.

906 Advanced Quantitative Methods in Criminal Justice Research
 Fall. 3(3-0) RB: (CJ 887 and STT 421) or introductory statistics course. R: Open only to graduate students in Criminal Justice.
 Applications of quantitative techniques to criminal justice data. Use of multiple regression and SPSS.

907 Advanced Topics in Criminal Justice Data Analysis
 Spring. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. P:M: (CJ 906) R: Open only to graduate students in Criminal Justice.
 Advanced quantitative analysis techniques for criminal justice data.

908 Advanced Topics in Criminal Justice
 Spring. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. R: Open only to graduate students in Criminal Justice.
 Intensive study of one subfield of criminal justice. Critical evaluation of the literature.

999 Doctoral Dissertation Research
 Fall, Spring, Summer. 1 to 12 credits. A student may earn a maximum of 50 credits in all enrollments for this course. R: Open only to doctoral students in Criminal Justice.
 Doctoral dissertation research.

110 Computer Applications in Agronomy
 Fall. 2(1-2) R: Open only to students in the College of Agriculture and Natural Resources. Not open to students with credit in CSE 101.
 Use of computers in agriculture. Basic computer operating systems. Management and use of storage media. Laboratory experience in word processing, spread sheets, data bases, programming languages, networking, and software related to agriculture.

151 Seed and Grain Quality
 Spring. 2(2-2) SA: CSS 051
 Principles and practices of producing, conditioning, testing and marketing field crop seed. Grain grading and quality evaluation. Offered first ten weeks of semester.

156 Weed Management
 Fall of odd years. 3(2-2) R: Open only to freshmen or sophomores. Not open to students in Crop and Soil Sciences.
 Cultural, mechanical, biological, and chemical weed management practices in agronomic crops.

164 Golf Course Design and Construction Techniques
 Fall. 2(2-0) RB: (CSS 210 and CSS 232)
 Concepts and theory of golf course design and construction including location, space, topography, clientele, and environmental concerns.

171 Operations Budgeting for Golf Course Managers
 Spring. 2(3-0) RB: (CSS 232 and CSS 210)
 Not open to students with credit in CSS 071.
 Budgeting. Financial analysis. Purchasing and materials management for golf course operations. Offered first ten weeks of semester.

178 Golf Turf Irrigation
 Spring. 2(2-2) Not open to students with credit in CSS 078.
 Golf course irrigation systems: installation and maintenance including water management. Offered first ten weeks of semester.

181 Pesticide and Fertilizer Application Technology
 Spring. 3(3-3) SA: CSS 081
 Effective and efficient application of pesticides and fertilizers to turf and ornamentals. Pesticide handling, legal, and environmental concerns. Calibration of equipment. Offered first ten weeks of semester.

192 Professional Development Seminar I
 Spring. 1(0-2) R: Open only to students in the Department of Crop and Soil Sciences.
 Career development, critical issues analysis, resume writing, scientific presentations and public speaking in crop and soil sciences.

201 Forage Crops
 Fall. 3(2-2)
 Forage crop production, management, and utilization. Crop identification. Soil fertilization. Planting and harvesting of grasses and legumes.

210 Fundamentals of Soil and Landscape Science
 Fall, Spring. 3(2-3) Interdepartmental with Forestry. RB: (CEM 141)
 Agricultural and natural resource ecosystems: soil, vegetation and ground water components. Energy, water and nutrient cycles. Soil classification and mapping. Land management and use issues.

211 Turfgrass and the Environment
 Spring. 2(3-0) P:M: (CSS 232) RB: (CSS 210)
 Pesticide and nutrient fate, site assessment, fuel use, equipment washing systems and criteria for recognizing sensitive sites. Conservation and best management practices to maximize protection of natural resources. Offered first ten weeks of semester.

212 Advanced Crop Production
 Fall. 2(2-0) P:M: (CSS 100 or CSS 101) RB: (CSS 210 and CSS 110)
 Systems approach to production of field crops including corn, soybeans, small grains, sugar beets, and dry beans.

222 New Horizons in Biotechnology
 Fall. 2(2-0) Interdepartmental with Entomology.
 Perspectives on biotechnology for safer food production, environmental quality, and improved human health. Impacts of biotechnology on the national economy. Political and ethical ramifications of applied biotechnology.

232 Introduction to Turfgrass Management
 Fall. 3(2-2) P:M: (CSS 210 or concurrently) RB: (CSS 110 or CSE 101)
 Turfgrass utilization, identification, establishment and management principles. Responses to various cultural practices.

242 Athletic Field Maintenance and Construction
 Fall. 2(2-0) P:M: (CSS 232 or concurrently and CSS 210 or concurrently)
 Maintenance, renovation, and construction of athletic fields with emphasis on baseball and football. Soil testing, cultivar selection, and surveying. Safety and liability concerns. Field trips required.

262 Turfgrass Management Seminar
 Fall. 1(2-0) A student may earn a maximum of 2 credits in all enrollments for this course. P:M: (CSS 232 or concurrently)
 Presentations by individuals involved in turfgrass and golf course management. Topics include golf course construction and operations, preparation for tournaments, and public relations.

267 Turfgrass Practices
 Spring. 2(2-2) P:M: (CSS 232) SA: CSS 067
 Turfgrass establishment, renovation, and construction principles. Maintenance of golf course turf. Agronomic and management principles applied to golf course maintenance.

269 Turfgrass Strategies
 Spring. 2(3-0) P:M: (CSS 232)
 Issues in turfgrass management including employee relations, construction, and environmental problems. Offered first ten weeks of semester.

272 Turfgrass Soil Management
 Fall. 3(2-2) RB: (CSS 043 or CSS 210) Not open to students with credit in CSS 044 or CSS 342.
 Impact of fertilization programs on turfgrasses and the environment. Irrigation, drainage, cultivation, top dressing, amendments and pH control of turfgrass soils.

CROP AND SOIL SCIENCES

CSS

Department of Crop and Soil Sciences College of Agriculture and Natural Resources

101 Introduction to Crop Science
 Fall. 3(2-2)
 Principles of crop production including crop and soil management and improvement. International and sustainable agriculture. Water quality issues.