969. Supervision of Counseling Psychologists

Spring. 3(2-3) P: CEP 967, CEP 994B. R: Open only to Ph.D. students in Counseling Psychology and School Psycholo-

Theoretical, empirical and practical aspects of the supervisory relationship. Process and outcome vari-ables.

QP: CEP 956C

Seminar in Counseling, Educational Psychology and Special Education 982. (MTC)

Fall, Spring, Summer. 3(3-0) A student may earn a maximum of 9 credits in all enroll-

ments for this course. R: Open only to doctoral students in College of Education.

Seminars in the various fields of emphasis in counsel-ing, educational psychology, and special education.

Independent Study 990.

Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 9 credits in all

enrollments for this course. R: Open only to Ph.D. students. Individual or small group study, guided by a faculty member, in the areas of Counseling, Educational Psychology and Special Education.

Special Topics in Educational Psychology 99 LA.

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.

QA: CEP 911

99*1*B. Special Topics in Educational Statistics and Research Design

Fall, Spring. 4(4-0) P: CEP 933. R: Open only to Ph.D. students.

QP: CEP 906

Counseling Psychology Practicum I 994A. Fall. 3(0-9)

P: CEP 960. C: CEP 966 R: Open only to Ph.D. students in Counseling Psychology.

Supervised practice in counseling, assessment, diagno-sis and related professional activities within an agency providing counseling and psychological services. QP: CEP 948A QA: CEP 956A, CEP 956B

Counseling Psychology Practicum II 994B

Spring. 3(0.9) P: CEP 994A. C: CEP 967 R: Open only to Ph.D. students in Counseling Psychology.

Intermediate supervised practice in counseling, as-sessment, diagnosis and related professional activities within an agency providing counseling and psychological services. QA: CEP 956C

Advanced Practicum in Counseling 994C. Psychology

Spring. 3(0.9) P: CEP 994B. R: Open only to Ph.D. students in Coun-

seling Psychology. Client conceptualization, assessment, intervention design, ethical and professional development issues, supervision, and consultation. QA: CEP 958B

995. Practicum in Research Design and Data Analysis

Spring. 3 credits. P: CEP 933, R: Open only to Ph.D. students in Education.

Supervised research practicum. Design, execution, analysis, presentation, critique, and revision of research projects. QP: CEP 904, CEP 905

Doctoral Dissertation Research 999.

Fall, Spring, Summer. I to 24 credits. A student may earn a maximum of 36 credits in all enrollments for this course. R: Open only to Ph.D. students.

CRIMINAL JUSTICE

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

110. Introduction to Criminal Justice

Fall, Spring, Summer. 3(3-0) Description and analysis of agencies and processes involved in administration of justice in the United States.

QA: C J 110

210 Introduction to Forensic Science Spring. 4(4.0)Techniques of crime scene search. Collection and

preservation of physical evidence. Class and individu-al scientific tests. Rules of evidence governing admissibility of physical evidence. Expert testimony. QA: C J 210

220

Criminology Fall, Spring. 3(3-0) Interdepartmental

with Sociology. P: CJ 110 or SOC 100. R: Open only to undergraduate students in Criminal Justice or Forensic Science or Sociology 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. QP: C J 110, SOC 241 QA: C J 320, SOC 320

292. Methods of Criminal Justice Research

Fall, Spring, Summer. 4(4-0) P: 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

QP: C J 320, SOC 320 or QA: C J 492

335. **Police** Process

Fall, Spring. 3(3-0) P:CJ 292, R: Open only to juniors or seniors in Crimi-nal Justice or Forensic Science. Roles, responsibilities, issues, and trends pertinent to contemporary law enforcement organizations in

contemporary society. QP: C J 492 QA: C J 335

355. **Juvenile Justice Process**

Fall, Spring, Summer. 3(3-0) P:CJ 292. R: Open only to juniors or seniors in Crimi-nal Justice or Forensic Science. The juvenile justice system and law. Theories of

juvenile delinquency and deviance. Sociological, psy-chological, and anthropological perspectives. *QP: C J 492 QA: C J 355*

Corrections Process 365.

Fall, Spring, Summer. 3(3-0) P: CJ 292. R: Open only to juniors or seniors in Crimi-nal Justice or Forensic Science.

Historical and contemporary views of offender management and treatment. Corrections system operation. Effects of institutionalization. Alternatives to incarceration. QP: C J 492 QA: C J 365

375. Criminal Law Process

Fall, Spring. 4(4-0) P:CJ 292. R: Open only to juniors or sentors in Crimi-nal Justice or Forensic Science.

Administration of criminal law. Investigation, prosecution, adjudication, and sentencing. Constitutional safeguards and legal controls on official action. QP: C J 492 QA: C J 375

385. Introduction to Private Security Fall. 3(3-0)

R: Not open to freshmen and sophomores. Relationships of private protective services with public law enforcement. Individuals, businesses, and govern-ments providing prevention, protection, investigation and disaster recovery services. Protection of persons, property, and information. QA: C J 485

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.

CJ

R: Open only to Honors College seniors, or approval of school. Faculty-supervised group or individual study dealing with a phase of the criminal justice system. QA: C J 400H

Forensic Science I 419.

Fall. 3(0-6) P: CJ 210, CJ 292, CEM 252, CEM 255, PHY 232, PHY 252. R: Open only to seniors in Forensic Science. Forensic science laboratory practice. Scientific instru-ments. Chain of custody. Scientific analysis of trace evidence and controlled substances. QP: C J 210, C J 492, CEM 243, CEM 244, CEM 245, PHY 239, PHY 259 QA: C J 312, C J 313

420. Forensic Science II

Spring. 3(0-6)

P. CJ 419. R: Open only to seniors in Forensic Science. Scientific analysis of pattern evidence and evidence from human origin. Presentation of scientific evidence in court. Rules governing admissibility of scientific evidence. Case work and mock trials. QP: C J 312, C J 313 QA: C J 314

421. Minorities, Crime, and Social Policy

Spring of even-numbered years. 3(3-0) P: CJ 110. R: Open only to juniors or seniors in Crimi-nal Justice or Forensic Science.

A socio-historical analysis of the effects of race and behavior, victimization, and differential judicial processing. Analysis of the impact of assimilation and acculturation on criminal behavior, victimization, and criminal justice processes. QP: C J 110 QA: C J 409

Comparative and Historical Criminal Justice 422.

Fall of odd-numbered years. 3(3-0) P: CJ 110. R: Open only to juniors or seniors in Criminal Justice or Forensic Science. Comparative study of criminal justice systems. Theotypes, and effects of intervention. QP: C J 110 QA: C J 822

425. Women and Criminal Justice

Spring of odd-numbered years. 3(3-0) Interdepartmental with Women's Studies. P: CJ220 or WS 201. R: Open only to juniors in Criminal Justice and Women's Studies.

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. QP: C J 320, SOC 320, WS 201 QA: C J 425

432. **Community** Policing

Fall, Spring. 3(3-0) P:CJ 335. R: Open only to juniors or seniors in Criminal Justice or Forensic Science.

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

QP: C J 335 QA: C J 318

433. Law Enforcement Intelligence **Operations**

Spring. 3(3-0) P:CJ 335. R: Open only to juniors or seniors in Crimi-nal Justice or Forensic Science.

Law enforcement intelligence as an analytic tool for case development and resource allocation. Historical, ethical, legal, and operational issues affecting current practice QP: C J 335 QA: C J 409

Police Administration Fall, 3(3-0) 434.

P: CJ 335. R: Open only to seniors in Criminal Justice.

Organizational theory, leadership, communications, and labor relations in police administration. Historical and legal perspectives. *QP: CJ 335 QA: C J 434*

Investigation Procedures 435.

Spring of odd-numbered years. 3(3-0) P:CJ 375, R:Open only to seniors in Criminal Justice or Forensic Science.

Laws of evidence controlling investigative procedures. Crime scene concerns. Multi-agency investigation. QP: C J 375 QA: C J 315

455. Delinquency and Treatment Approaches

Spring. 3(3-0) P:CJ 355. R: Open only to juniors or seniors in Crimi-nal Justice or Forensic Science. Investigation and evaluation of delinquency. Preven-

tion programs and treatment approaches. Implementation and assessments of correctional and community intervention strategies in agency settings. QP: C J 355 QA: C J 455

456. Criminal Careers and Career Criminals

Spring. 3(3-0) P: CJ 355 or CJ 365. R: Open only to seniors in Criminal Justice.

Types of juvenile and adult criminal careers. Extent, etiology, control, and treatment of selected offender types. Process of criminal career development. QP: C J 355, C J 365

465. **Correctional Programming and**

Analysis Spring. 3(3-0) P: CJ 355 or CJ 365. R: Open only to juniors or seniors in Criminal Justice or Forensic Science. Contemporary institutional and community corrections programs. Research on adult and juvenile crime prevention, diversion, and treatment programs. *QP: C J 355 or C J 365 QA: C J 465*

466. **Corrections Organizations and Systems** Fall, 3(3-0)

P: CJ 355 or CJ 365. R: Open only to seniors in Criminal Justice.

Management of correctional organizations. Interactions between correctional organizations and their political and cultural environments. QP: C J 355 or C J 365 QA: C J 466

471. Law of Corrections

Fall of odd-numbered years. 3(3-0) P: CJ 375. R: Open only to juniors or seniors in Criminal Justice or Forensic Science.

Constitutional limitations and the impact of law on correctional practice. Due process, prisoners' rights, and parole and probation. QP: C J 375 QA: C J 871

472. Criminal Low

Spring. 4(4-0) P: CJ 375. R: Open only to juniors or seniors in Foren-

sic Science or Criminal Justice. Criminal law as a means of preserving and protecting

life and property. QP: C J 375 QA: C J 472

485. Asset Protection Management

Spring. 3(3-0) P: CJ 385. R: Open only to seniors in Criminal Justice.

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. QP: C J 485 QA: C J 486

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. P: CJ 335, CJ 355, CJ 365, CJ 375. R: Open only to juniors or seniors in Criminal Justice or Forensic

Juniors of seniors in Criminal Justice or Forensic Science. Approval of school. Individual study in fields of criminal justice, under direct supervision of a faculty member. QP: C J 335, C J 355, C J 365, C J 375 QA: C J 401

A-42

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. P:CJ 292. R: Open only to juniors or seniors in Crimi-nal Justice or Forensic Science. Approval of school. Special issues in criminal justice. QP: C J 492 QA: C J 409

494. Criminal Justice Practicum

Fall, Spring, Summer. 3 to 12 credits. A student may earn a maximum of 12 credits in all

errollments for this course. P: CJ 335, CJ 355, CJ 365, CJ 375. R: Open only to juniors or seniors in Criminal Justice or Forensic Science. Approval of school.

Observation, participation and study in selected criminal justice agencies. QP: C J 335, C J 355, C J 365, C J 375 QA: C J 490

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 graduate students.

Special issues in criminal justice research and management. QA: C J 809

810. **Proseminar in Criminal Justice** Fall. 3(3-0)

R. Open only to graduate students in the School of Criminal Justice.

Survey of classical and recent literature in criminal justice. Trends and issues that transcend the components of the criminal justice system. QA: C J 810

Design and Analysis in Criminal Justice Research 811. Fall. 3(3-0)

R: Open only to graduate students in the School of Criminal Justice.

Scientific methods in criminal justice research. Design, data collection and analysis, interpretation of findings, and ethical concerns. Computer use in data analysis. QA: C J 811

812. **Criminal Justice Management** Seminar Fall. 3(3-0)

R: Open only to graduate students in the School of Criminal Justice.

Organization theory and behavior for the criminal justice agency. organization and policy planning, budgeting, forecasting, human resource management, and project implementation. QA: C J 812

814. Seminar in Management Topics Spring. 3(3-0)

R: Open only to graduate students in the School of Criminal Justice.

Critical application of selected analytical tools to managing justice agencies. Human and financial resources, organizational design, productivity mea-surement and enhancement, and resource acquisition and allocation. QA: C J 813, C J 814

815. Proseminar in Criminal Investigation Spring. 3(3-0)

P: CJ 811. R: Open only to graduate students in the School of Criminal Justice.

Research on the criminal justice process. Investigation and role of evidence in the administration of justice. Ethical issues QP: C J 811 QA: C J 815

835. **Managing Police Organizations** Fall. 3(3-0)

P: CJ 810. R: Open only to graduate students in the School of Criminal Justice. Issues and practices in police management. Management philosophy and personnel management. QP: C J 810 QA: C J 837

Assessment of Police Policies and 836. Operations

Spring. 3(3-0) P: CJ 835. R: Open only to graduate students in the School of Criminal Justice.

Recent policy-related research and its application to the deployment of human resources. QP: C J 837 QA: C J 838

855. **Delinquency Prevention and Control** Fall. 3(3-0)

R: Open only to graduate students in the School of Criminal Justice.

Historical overview. Theories and methodologies. Models and organization of delinquency prevention and control programs. Law and public policy. Program evaluation. QA: C J 855

865. Adult Corrections

Fall. 3(3-0)

R: Open only to graduate students in the School of

Traditional and contemporary adult correctional practices. Social, political, economic, and organization-al factors affecting correctional policies. QA: C J 865

866. Adult and Juvenile Corrections Programs

Spring, 3(3-0) P: CJ 855 or CJ 865. R: Open only to graduate stu-dents in the School of Criminal Justice. Adult and juvenile crime prevention and correctional programs. Application of research findings to management issues. QP: C J 865 or C J 855 QA: C J 866

885. Security Management Fall. 3(3-0)

P: CJ 811 or concurrently. R: Open only to graduate students in the School of Criminal Justice. Organization and management of security operations in business, industry and government. QA: C J 885

886. Security Administration

Spring. 3(3-0) R: Open only to graduate students in the School of Criminal Justice.

Administrative and quantitative techniques for security operations. Statistical analyses. Analysis of financial statements. Operations research and computer techniques. QP: C J 885 QA: C J 886

887. **Quantitative Methods in Criminal Justice Research**

Spring. 3(3-0) P: CJ 811. R: Open only to graduate students in the School of Criminal Justice. Descriptive and inferential statistics and computer

use in criminal justice research. QP: C J 811 QA: C J 892

890. Independent Study

Fall, Spring. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course.

R: Open only to graduate students in the School of Criminal Justice. Approval of school.

Individual research and writing under faculty supervision.

QA: C J 801

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 graduate students in the School of Criminal Justice. Approval of school.

Observation, study, and work in selected criminal justice agencies. Participation in domestic and foreign criminal justice systems. QA: C J 890

899.

896. Policy Analysis under Conditions of Change Spring. 3(3-0) P: CJ 811. R: Open only to graduate students in the

Methods of policy analysis in criminal justice settings. Policy analysis for the formulation, adoption and

Master's Thesis Research

Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 6 credits in all

R: Open only to graduate students in Criminal Justice.

Planned research and writing directed by student's

School of Criminal Justice.

QP: C J 811 QA: C J 896

enrollments for this course.

thesis committee. QA: C J 899

Seminar in Contemporary Criminal Justice Theory 901. Fall. 3(3-0)

R: Open only to graduate students in Criminal Justice Theoretical Science-Criminal Justice. Theoretical perspectives and issues in criminal justice and criminology QA: C J 990

Seminar in Criminal Justice Systems 902.

Spring of odd-numbered 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. QA: C J 930

903. **Research Utilization in Criminal** Justice

Spring of even-numbered 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. QA: C J 992

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 management, improvement, and fertilization. International and sustainable agriculture. Water quality issues. QA: CSS 101

Computer Applications in Agronomy 110. Fall. 2(1-2)

R: Open only to College of Agriculture and Natural Resources students. Not open to students with credit in CPS 100.

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.

201. Forage Crops

Fall. 3(2-2) Force of production, management, and utilization. Crop identification. Soil fertilization. Planting and harvesting of grasses and legumes. QA: CSS 301

Fundamentals of Soil and Landscape 210 Science

Fall. 3(2-3) Interdepartmental with For-

estry P: ČEM 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. QA: CSS 210

232. Introduction to Turfgrass Management

Fall. 3(2-2) P: CSS 110; CSS 210 or concurrently. Turfgrass utilization, identification, establishment and management principles. Responses to various cultural practices. QP: CSS 210 QA: CSS 318

262 Turfgrass Management Seminar Fall. 1(2-0) P: 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. QP: CSS 318 QA: CSS 417

310. Soil Management and Environmental Impact Spring. 3(2-3)

P: CSS 210.

Management of soil physical and chemical properties for the production of food and fiber. Soil management systems that reduce the environmental impact on soil, water and air resources and maximize crop production potential. QP: CSS 210 QA: CSS 390

332.Advanced Turf Management

Spring. 3(3-0) P: CSS 232.

Effect of light, heat, cold, drought, and traffic on turfgrass growth and development. Impact of practices such as mowing, cultivation, and compaction on the growth of grasses. *QP: CSS 318 QA: CSS 416*

342.**Turfgrass Soil Management** Fall. 3(3-0)

P: CSS 210. Fertility and pH control of turf soils. Drainage, irrigation programming, cultivation, topdressing, and soil amendments. Environmental impacts. Specialized soils.

QP: CSS 318 QA: CSS 414

Introduction to Plant Genetics 350.

Spring, 3(4-0) P: BOT 105 or BS 111. R: Not open to freshmen and sophomores.

Fundamentals of plant genetics with applications to agriculture and natural resources.

Temporary approval effective from Spring Semester 1993 through Spring Semester 1995. QP: BOT 205, BS 211 QA: CSS 350

362.

Management of Turfgrass Pests Fall. 4(3-2) Interdepartmental with Botany and Plant Pathology, and Entomology. P: CSS 232.

Chemical, biological, and cultural methods of managing weeds, diseases, and insect pests of turfgrass. Environmental considerations in pest management. QP: CSS 318 QA: CSS 419

Agricultural Cropping Systems 370. Management

Fall. 3(2-3) P: CSS 101 or CSS 210; MTH 110 or MTH 116. R: Not open to freshmen and sophomores. Interdisciplinary decision making to select crop and production systems based upon soil productivity, climatic adaptation, environmental impacts, and economic constraints. QP: CSS 101 or CSS 210, MTH 108

380. **Crop Physiology**

Spring of odd-numbered years. 3(2-3) P: CSS 101; BOT 105 or BOT 301. R: Not open to freshmen and sophomores.

Physiological and metabolic function of plants from a whole plant viewpoint. Environmental effects on crop growth, development, and yield. QP: CSS 101, BOT 301 QA: CSS 380

Principles of Weed Science 402. Fall. 3(2-2)

P: BOT 105, CEM 143. R: Not open to freshmen and sophomores.

Weed biology and ecology. Cultural, mechanical, biological, and chemical control practices. Herbicide action, selectivity in plants, and effects on environment.

QP: CEM 143, BOT 301 QA: CSS 402

406. Seed Production and Technology

Fall of even-numbered years. 3(2-2) P: CSS 101, CSS 350. R: Not open to freshmen and sonhomores.

Principles and practices of field seed production. Crop improvement, variety release, seed production, seed technology and evaluation involved in producing high quality field crop seed. *QP: CSS 101, CSS 350 QA: CSS 406, CSS 485*

Soil Fertility and Chemistry 430.

Spring, 3(2-2) P: CSS 210. R: Not open to freshmen and sophomores. Application of chemistry to diagnosing and improving soil fertility. Soil amendments including matro- and micro-nutrients. Reducing environmental degradation. QP: CSS 210 QA: CSS 430

440. Soil Biophysics Fall of even-numbered years. 3(2-2) P: CSS 210. R: Not open to freshmen and sophomores. Plant growth properties and soil physical conditions which influence productivity. Principles and applica-tions of soil texture, structure, mechanical impedance, aeration and water. Root responses to the environment.

QP: CSS 210 QA: CSS 440

441. Plant Breeding and Biotechnology

Spring. 4(3-2) Interdepartmental with Horticulture and Forestry.

P: CSS 350.

Plant improvement by genetic manipulation. Genetic variability in plants. Traditional and biotechnological means of creating and disseminating recombinant genotypes and cultivars. *QP: CSS 350 QA: CSS 408*

Cellular and Molecular Principles 45 L and Techniques for Plant Sciences

Spring. 4(2-6) Interdepartmental with Forestry and Horticulture. P: CSS 350 or ZOL 341.

Principles, concepts, and techniques of agricultural plant biotechnology. Recombinant DNA technology, plant molecular biology, transformation, cell tissue, and organ culture in relation to plant improvement. QP: CSS 350 or ZOL 441 QA: CSS 451, HRT 838

455. **Pollutants in the Soil Environment** Fall. 3(3-0)

P: CEM 143. R: Open only to seniors and graduate students.

Chemical and biological reactions of organic and inorganic pollutants in soils. QP: CEM 143 QA: CSS 455

Soil Resources 470.

Fall. 3(2-3) P: CSS 210. R: Not open to freshmen and sophomores. Evaluation of the properties, genesis, and classification of soil resources to assist in making land-use decisions. Field trips required. QP: CSS 210 QA: CSS 470

490. Independent Study Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 8 credits in all

P: CSS 101 or CSS 210. R: Approval of department; application required.

Individual work on field, laboratory, or library re-search problem of special interest to the student. QP: CSS 101 or CSS 210 QA: CSS 411

491. Special Topics

Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 8 credits in all enrollments for this course. P: CSS 101 or CSS 210.

Topics from crop production, crop physiology, turfgrass management, organic soils, turfgrass soils, soil fertility, plant and soil relationships, genetics, biotechnology, environmental science, or sustainable agriculture

QP: CSS 101 or CSS 210 QA: CSS 412

492. Seminar

Fall. 1(1-0)

P: CSS 210; CSS 342 or CSS 370. Synthesis, integration and application of agronomic principles to current issues in agronomy via discus-sion and oral and written communication. *QP: CSS 210, CSS 370 or CSS 342 QA: CSS 420*

801. Physiological Crop Ecology Fall of even-numbered years. 2(2-0) Environmental factors that limit crop distribution and productivity. Physiological basis for stress injury, resistance to temperature extremes, flooding, drought, and salinity. QA: CSS 801