

POULTRY SCIENCE P S

**College of Agriculture and
Natural Resources**

224. Poultry Science and Practice
Winter, Spring. 4(3-2)

Poultry in the agricultural economy; fundamental principles of anatomy, physiology and body systems; diseases, their prevention and control; management practices and procedures in producing poultry meat and eggs.

301. Special Problems

Fall, Winter, Spring, Summer. Variable credit. May re-enroll for a maximum of 6 credits. Approval of department.

Studies in any of the following: avian genetics, management, nutrition, physiology, other areas of poultry science.

413. Avian Nutrition

Fall. 4(3-3) ANS 325.

Factors affecting digestion and utilization of dietary ingredients. Nutrient requirements and formulation of practical poultry feeds. Nutritional problems and assay methods. Food and drug laws influencing poultry feeds.

424. Poultry Breeding and Incubation

Winter of even-numbered years. 4(3-2) ANS 461.

Genetic and biological factors affecting economic characteristics including egg production, egg size, hatchability, growth and viability and factors involved in the hatching of eggs.

435. Poultry Industry-Management and Marketing

Spring of even-numbered years. 5(4-2) 224 or approval of department.

Practical application of economic and management principles to commercial poultry enterprises.

440. Avian Physiology

Spring of odd-numbered years. 4(3-3) Approval of department. Interdepartmental and administered jointly with the Physiology Department.

A survey of the systemic physiology of birds emphasizing digestion, metabolism, the endocrines, and reproduction.

454. Avian Disease Prevention and Treatment

Winter of even-numbered years. 4(3-2) MPH 200 or B S 212 or approval of department.

Microbiological concepts; causes, preventive and therapeutic methods for poultry diseases, laboratory diagnosis and experiments.

IDC. The Impact of Animal Resource Management Upon the World's Developing Nations

For course description, see Interdisciplinary Courses.

800. Advanced Poultry-Special Problems

Fall, Winter, Spring, Summer. Variable credit. Approval of department.

Studies in any of the following: avian genetics, management, nutrition, physiology, other areas of poultry science.

899. Research
Fall, Winter, Spring, Summer. Variable credit. Approval of department.

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

PSYCHIATRY PSC

**College of Human Medicine
College of Osteopathic Medicine**

590. Special Problems in Psychiatry
Fall, Winter, Spring, Summer. 1 to 6 credits. May re-enroll for a maximum of 12 credits. Human Medicine students; graduate students with approval of department.

Each student will work under direction of a staff member on an experimental, theoretical or applied problem.

608. Psychiatry Clerkship

Fall, Winter, Spring. 1 to 17 credits. May re-enroll for a maximum of 43 credits. Approval of department.

A program designed to permit the student to become familiar with and participate in the contemporary practice of psychiatry utilizing supervised in-patient, out-patient, emergency and community mental health services.

PSYCHOLOGY PSY

**College of Human Medicine
College of Osteopathic Medicine
College of Social Science**

107. Motivation and University Life

Fall, Winter, Spring. 2(3-0) For Freshmen and Sophomores with a 2.5 grade-point average or lower; referral by Counseling Center and approval of department.

Seminars on topics of current interest relating psychological principles to problems of university life. Topics include behavior motivation, attitudes and values, perception of self and others, and learning processes.

139. Psychology of Women

Winter, Spring. 3(3-0) Primarily for Freshmen and Sophomores.

Psychological development of sex-typed behavior and sex differences in cognitive and personality functioning; reproductive behavior; impact of social expectations on self-concept, achievement and affiliation orientations, and life decisions.

160. Introductory Psychology: Social-Personality

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

The complex functioning of the individual in his social environment will be considered. Topics include: socialization, interpersonal perception, group processes, motives, emotions, attitudes, and values. Students may participate in psychological experiments outside of class.

161. Topics in Introductory Psychology: Social-Personality
Fall, Winter, Spring, Summer. 2(2-0) 160 must be elected concurrently.

A small-enrollment discussion class for students enrolled in 160 who are interested in discussing a particular psychological topic in depth. A number of different sections will be offered, each discussing a different topic.

170. Introductory Psychology: General

Fall, Winter, Spring, Summer. 4(4-0)

Principles underlying the behavior of humans and animals. Topics include: cognition, emotion, motivation, learning, sensation, and perception. Students may participate in psychological experiments outside of class.

215. Introduction to Psychological Measurement

Fall, Winter, Spring, Summer. 4(3-2) 160 or 170.

Psychology as a quantitative discipline; graphical presentation and interpretation; psychological data in various content fields; methods of summarizing behavioral data; samples, populations and probability in psychological research; hypothesis testing.

225. Psychology of Personality

Fall, Winter, Spring, Summer. 3(3-0) 160 or ED 200 or Sophomores with approval of department.

Application of psychological principles to an introductory understanding of personality and interpersonal adjustments; social motivation, frustration, conflicts, and adjustment mechanisms; theories of adjustment, the assessment of personality, problems of mental hygiene and some theories of psychotherapy.

245. Introduction to Child Psychology (345.)

Fall, Winter, Spring, Summer. 4(4-0) 160 or 170 or ED 200.

Psychological development of the child; genetic, prenatal and postnatal influences; infancy, preschool and school age periods; relations with parents and peers; social, emotional and intellectual development.

246. Sensitivity to Children I

Fall. 2(2-1) Sophomores and three credits in psychology.

Three-term sequence emphasizes supervised weekly play with a child and analysis of videotaped recordings. Readings and discussions cover problems faced by child therapists, teachers and parents.

247. Sensitivity to Children II

Winter. 2(2-1) 246.

Continuation of 246.

248. Sensitivity to Children III

Spring. 2(2-1) 247.

Continuation of 247.

255. Organizational and Personnel Psychology

Fall, Winter, Spring, Summer. 3(3-0) Introductory course in psychology.

The psychology of managing and leading, personnel operations, and the humanizing of work organizations.

**Descriptions — Psychology
of
Courses**

290. Human Sexuality

Winter, Spring. 3(3-0) Credit may not be earned in both FCS 465 and PSY 290. Sophomores.

Lecture and discussion of the fundamental principles of human sexuality focusing on such topics as physiology, psychological development, cultural perspectives, gender roles, premarital standards, values and human interactions.

301. Human Learning and Memory

Winter, Spring, Summer. 4(4-0) 170 or 215.

Concepts, procedures, issues, and principles involved in the acquisition, retention, transfer and execution of verbal learning, identification learning, and perceptual-motor skills.

302. Human Learning and Performance

Winter, Spring, Summer. 2(0-4) 170, 215; 301 concurrently.

Representative demonstrations, exercises, and experiments concerned with the acquisition, retention, transfer, and execution of verbal learning, identification learning, and perceptual-motor skills.

304. Physiological Psychology

Fall, Spring. 3(3-0) One course in experimental psychology and one elementary course in zoology, biology or physiology.

Physiological mechanisms underlying basic behavioral processes, including sensation, emotion, motivation and learning.

308. Psychology of Thinking

Winter. 3(3-0) 170, or ED 200, 215; one additional course in experimental psychology recommended.

Principal concepts, theories and research on cognitive process and thinking, including problem solving, creative and critical thinking, reasoning, and concept formation. Experimental analysis, individual differences and information-processing approaches.

310. Sensation and Perception

Fall, Winter, Spring, Summer of even-numbered years. 3(3-0) 170, 215; 311 concurrently.

Concepts, issues and principles in the areas of sensation and perception.

311. Experimental Psychology: Sensation and Perception

Fall, Winter, Spring, Summer of even-numbered years. 3(0-4) 170, 215; 310 concurrently.

Representative experiments and demonstrations in the areas of sensation and perception.

312. Learning and Motivation

Fall, Winter, Spring, Summer of odd-numbered years. 3(3-0) 170, 215; 313 concurrently.

Detailed analysis of basic conditioning processes such as reinforcement, discrimination, generalization, punishment, aversive behavior, and theories of learning. Emphasis on infrahuman data, but applications to human behavioral modification are considered.

313. Experimental Psychology: Learning and Motivation

Fall, Winter, Spring, Summer of odd-numbered years. 3(0-4) 170, 215; 312 concurrently.

Representative experiments in operant behavior, including an individual project selected by the student, using the pigeon as the laboratory animal.

315. Psychometric Methods

Fall, Winter, Spring, Summer. 3(2-2) 215 or approval of department.

Applications of statistical methods and techniques to psychological data in relation to theories, hypotheses, assumptions and interpretation.

325. Traits and Abilities

Spring. 3(3-0) 215.

Ways in which individuals differ in personality: theories, methods, and techniques for understanding and studying personality organization and structure in relation to causation and prediction.

335. Principles of Social Psychology

Fall, Winter, Spring, Summer. 4(4-0) 160. Students may not earn credit in both 335 and SOC 251.

A critical survey of social psychology with emphasis on psychological principles underlying social behavior. Topics include social perception; motivation; attitudes and attitude change; social interaction in small groups and in large-scale organizations.

336. Psychology of Social Movements

Fall, Spring. 3(3-0).

Psychology of political, religious, and other social movements: group identifications and affiliation, socialization, conversion, and defection; the perception of social movements by members; influences of motivation and personality on ideologies and social movements.

337. Legal and Criminal Psychology

Fall, Winter, Spring. 3(3-0) 160 or ED 200.

Application of psychological principles, methods and techniques to legal and criminal problems and procedures, including the formation, detection, prevention, and rehabilitation of criminal behavior, testimony, legal arguments, trial tactics and the other courtroom procedures.

348. Adolescent Psychology

Winter, Spring, Summer. 3(3-0) 245.

Continuation of 245 covering development and maturation during adolescence, with emphasis on problems of the adolescent's adjustment to his personal and social environment.

356. Psychology of Human Relations in Work Setting

Fall, Winter, Spring. 3(3-0) 255.

Preventing and solving problems among individuals and groups in work organizations; psychological and legalistic approaches compared; illustrations mainly from United States but also from other cultures as appropriate.

357. Psychology of Advertising and Selling

Winter, Spring. 3(3-0) An introductory course in psychology.

Psychology underlying techniques of effective advertising, selling, and marketing and, at the same time, psychology relevant to living in a marketing-oriented culture.

370. Psychology and Social Innovation

Winter. 3(3-0) A social science research methods course or approval of department.

Planning, implementing and evaluating experimental approaches to social problems. Topics include: adoption of innovations; field research problems; science and policy formation; parameters of program evaluations.

390H. Honors Seminar

Fall. 3(3-0) Juniors or approval of department.

Review of research areas in psychology to focus students' interests. Preparation for the senior project.

400H. Honors Work

Fall, Winter, Spring, Summer. 3 to 5 credits. May re-enroll for 4 terms. Approval of department.

Seminars in advanced psychological topics, including both factual data and theoretical concepts. Topics include perception, learning, motivation and personality.

401. Experimental Psychology: Perception

Winter. 4(2-4) 215, 310, 311.

Critical examination of problems, principles, methods, techniques, materials, results and conclusions in relation to theory in studies of perception, including experimentation and demonstrations.

403. Experimental Psychology: Human Learning

Fall, Winter, Spring. 4(3-2) 215; 302 or approval of department.

Critical examination of problems, principles, methods, techniques, materials, results and conclusions in relation to theory in studies of human learning, including experimentation and demonstrations.

404. Experimental Psychology: Problem Solving

Spring. 4(2-4) 215 and 308, or approval of department.

Investigations of problem solving, concept formation and judgement; class and individual experiments.

405. Modern Viewpoints in Psychology

Fall, Winter, Spring. 4(4-0) 310 or 312.

Survey of psychological systems in the modern era including behaviorism, Gestalt psychology, psychoanalysis, neo-behaviorism in relation to other selected disciplines.

406. Psycho-ethology

Spring. 4(4-0) Six credits of psychology or ZOL 412 or 413.

Comparative and ethological methods and their application to behavior with emphasis on animals other than humans. Review of research on innate behavior, early experience, learning, motivation, and physiological processes.

409. Advanced Concepts in Physiological Psychology

Fall, Winter, Spring. 4(4-0) 304 or approval of department.

Detailed analysis of advanced concepts in physiological psychology, such as vision, audition, somatic sensation, chemical senses, motivation, emotion, perception, arousal, learning, and the influence of hormones on behavior.

414. Psycholinguistics

Fall, Spring. 4(4-0) 310 or 312.

Psychological processes underlying meaning, control of verbal behavior, language learning in children and adults, bilingualism, verbal aptitude, and verbal habits in learning and perception.

- 415. Psychological Tests and Measurements**
Fall, Winter, Spring. 5(4-2) 215.
Survey of methods, techniques and instruments for measuring individual differences in behavior; some representative methods of test construction, a critical analysis of representative test, criteria for evaluating and selecting tests, values and limitations of tests, laboratory experience with tests.
- 425. Abnormal Psychology**
Fall, Winter, Spring, Summer. 4(4-0) 225.
Nature of abnormal behavior and its social significance; description of symptoms and dynamics of psychological disorders; the neuroses and psychosomatic reactions, sociopathic behavior and character disorders, functional and somatogenic psychoses; some consideration of therapies and theories of prevention.
- 426. Survey of Clinical Psychology**
Fall, Winter, Spring, Summer. 3(3-0) 225.
Clinical psychology; types of problems; diagnostic instruments, methods and techniques; individual and group therapeutic theories, methods and techniques; professional roles for clinical psychologist.
- 427. Personality: Dynamic Theories**
Fall, Winter, Spring. 3(3-0) 425.
Survey of personality theories of development, structure, and dynamics related to learning, determinants, cultural influences, behavioral disorders and assessment methods.
- 428. Psychology of Physical Disability**
Spring. 3(3-0) 425.
Psychological problems, principles and practices in physical disabilities and handicaps; psychological assessment and diagnosis; counseling and placement; re-education and retraining; attitudes, motivations, and emotion; psychological rehabilitation and adjustment.
- 430. Experimental Psychology: Personality**
Fall, Winter, Spring. 3(3-0) 215; 310 or 312.
Critical survey of experimental investigations of personality dynamics and the effects of individual differences on social interaction; consideration of stress and anxiety, response set, cognitive styles, risk taking and subjective probabilities, and aggression. Emphasizes experimental techniques most relevant for those with clinical and social psychological interests.
- 431. Experimental Psychology: Personality**
Fall, Winter, Spring. 2(0-4) 215; 311 or 313; 430 concurrently.
A laboratory course coordinated with PSY 430, with laboratory demonstration and experiments, conducted by the students, designed to clarify issues in the experimental study of personality, and to provide experience with a variety of investigatory techniques.
- 436. Psychology of Communication and Persuasion**
Fall, Spring. 3(3-0) 335 or SOC 251.
Psychological processes underlying communication and persuasion; learning and using communication in interpersonal relations; effects of communication themes, techniques, symbols, and formats on thought, attitude, and personality of audiences.
- 437. Psychology of Political Behavior**
Fall, Winter, Spring. 3(3-0) 335 or SOC 251 or 6 credits in sociology or political science. Interdepartmental with the Department of Political Science.
Psychological theories, principles, methods and techniques applied to political behavior; belief systems; personality influences; decision making, psychological patterns in legislative voting; political leadership; interpersonal and international relations and tensions.
- 438. Research Methods in Social Psychology**
Fall, Winter, Spring. 4(2-4) 215; 335 or SOC 251; 1 course in experimental psychology.
Critical examination of problems, principles, methods, techniques, materials, results and conclusions in relation to theory in social psychology, including experimentation and demonstration.
- 439. Selected Topics in the Psychology of Women**
Fall, Spring. 3(3-0) May re-enroll for a maximum of 9 credits when different topics are offered. Nine credits in psychology or approval of department.
Selected topics: e.g., achievement and affiliation behavior; sex-typed behavior and identity; political socialization of women; personality perspectives; psychohistory of women; professional and traditional orientations; third world women.
- 444. Selected Topics in Developmental Psychology**
Fall, Spring. 4(4-0) May re-enroll for a maximum of 12 credits when different topic is taken. 160, 170, 215, 245 or approval of department.
Selected topics in developmental psychology: e.g., perceptual-cognitive development, language development, moral development, attention and learning, socialization, play, peer relations.
- 445. Psychology of Exceptional Children**
Fall, Summer. 3(3-0) Nine credits in psychology and/or education including at least 2 courses in child behavior.
Psychological problems of children having superior or inferior intellectual ability; examination of research studies. Identifying such persons, assessing their potentials and limitations, planning their education and social adjustment.
- 446. Developmental Psychology: Research Methods**
Fall, Spring. 4(2-4) 311 or 313; 348, 444.
Methods of research in developmental psychology including methods used with both human and infrahuman organisms.
- 455. Personnel Research Techniques**
Fall, Spring. 4(3-2) 215, 255.
Quantitative psychological research technique applied to typical personnel problems in industry and government.
- 456. Personnel Training and Development**
Spring. 3(3-0) 356.
Each student develops skills called for in training work-level employees, supervisors and managers in industry, business, and government—all in an organization development frame of reference. Relevant research reviewed.
- 457. Personnel Interviewing**
Winter. 3(3-0) 356.
Each student develops skills called for in interviewing in industry, business, and government. The training and management of interviewers. Relevant research reviewed.
- 485. Psychology of Ethics and Love**
Fall, Winter. 4(4-0) Juniors, PHL 101 and three courses in Psychology.
Love and ethics as specifically human attributes, their function in the growth of the person. Varieties of love. Cultural and universal dimensions in ethics. Levels of maturity. Perspectives on ethics from code-centered to care-centered.
- 486. Psychology of Music**
Fall, Summer. 3(3-0) Approval of department. Interdepartmental with the Music Department.
Musical behavior with emphasis on psychological aspects of perception, learning, affective response, and ability. Emphasis on social and cultural influences in forming musical tastes, including mass media music.
- 487. Psychology of Music**
Winter, Summer. 3(2-2) 486. Interdepartmental with the Music Department.
Basic research concepts and experimental methods in psychology of music research. Practical training in conducting experimental research of musical behavior.
- 489. Humanistic Psychology**
Fall, Spring. 4(4-0) 485.
Subject matter is drawn from the psychology of personality in its various forms. The usual approaches of the behavioral sciences are subject to critical analysis. One goal is to derive some elements of a philosophy of life for man as a potentially rational and ethical being.
- 490. Special Problems in Psychology**
Fall, Winter, Spring, Summer. 1 to 6 credits. May re-enroll for a maximum of 12 credits. Approval of department.
Each student will work under direction of a staff member on an experimental, theoretical, or applied problem.
- 499H. Senior Project**
Fall, Winter, Spring. 3(0-6) May re-enroll for a maximum of 6 credits. 390H or approval of department.
Independent research involving literature survey, naturalistic observation, or experimental investigation with staff supervision. Preparation of the Senior paper.
- 800. Conditioning and Learning**
Fall. 4(3-0)
Detailed stimulus-response analysis of the basic operations of conditioning and learning, including such variables as reinforcement, motivation, and inhibitory effects, with an emphasis on infrahuman data.
- 801. Perception**
Fall. 4(3-0) Majors or approval of department.
Consideration in depth of selected topics in perception. Intergration of theoretical and empirical material.

**Descriptions — Psychology
of
Courses**

- 802. Advanced Experimental Psychology: Comparative**
Spring. 4(2-4) One course in experimental psychology and 315.
Critical examination of theories and data relating particularly to behaviors of sub-humans. Experimentation on selected topics in the area.
- IDC. Seminar in Industrial Relations**
For course description, see Interdisciplinary Courses.
- 806. Advanced Comparative Psychology**
Fall. 4(3-0) Majors or approval of department.
Behavior of infrahuman organisms with emphasis on general behavior processes as seen in a variety of animal forms. The comparative method as applied to innate behavior and behavior modification.
- 808. Cognitive Processes**
Fall, Spring. 4(3-0) A course in experimental psychology.
Critical survey of theories and research on such topics as problem solving, creative thinking, reasoning, judgement, decision making, formation and use of concepts and principles.
- 810. Human Learning and Performance**
Spring. 4(3-0) Majors or approval of department.
Experimental findings and theoretical analyses of the acquisition, retention, transfer and execution of verbal materials and perceptual-motor skills. Selected demonstrations of major phenomena.
- 811. Advanced Physiological Psychology**
Spring. 4(3-0) Majors or approval of department.
Psychology as a biological science. Consideration of physiological events underlying organism-environment interaction.
- 814. Psychology of Language**
Spring. 4(3-0)
Critical survey of research on language acquisition, utilization, and modification; psycholinguistic considerations in study of learning, perception, motivation, and cognitive processes.
- 815. Advanced Psychometrics**
Fall, Winter. 4(4-0) 315.
Theory and practice in analysis and interpretation of psychological data.
- 816. Advanced Psychometrics**
Winter, Spring. 4(4-0) 815.
Continuation of 815.
- 817. Advanced Psychometrics**
Spring. 4(4-0) 816.
Multivariate methods of test analysis: multiple and partial correlation, factor and pattern analysis.
- 818. Test Construction**
Winter. 4(4-0) 816.
Theory, methods, and techniques in the preparation and development of psychological test items and tests.
- 820. Mathematical Models in Psychology I**
Fall. 4(4-0) MTH III and STT 201 or approval of department.
Discussion of the relationship between mathematics and psychological theory. Examination of the concepts of structure and change in qualitative psychological systems. Application of algebraic techniques to psychological theory.
- 821. Mathematical Models in Psychology II**
Winter. 4(4-0) 820 or approval of department.
Representative mathematical models in psychology, attending particularly to stochastic models and the relationship between models and data. Advantages of various models for different psychological problems.
- 822. Computer Models in Psychology**
Spring. 4(3-2) An undergraduate mathematics course and approval of department.
Use of an electronic computer as a tool in theory construction. Simulation of complex psychological processes. Computer-based models in several psychological content areas.
- 826. Advanced Personality Research**
Fall, Winter. 4(4-0) May re-enroll for a maximum of 8 credits if different topics are taken. Majors or approval of department.
Review of current research in selected areas. A minimum of four topics will be covered each term.
- 827. Personality Theory I**
Fall. 4(3-0) Majors or approval of department.
Freudian and neo-Freudian conceptualizations of personality and psychopathology. Examination of basic constructs; theory of psychosexual development; psychotherapeutic implications.
- 828. Clinical Assessment I**
Fall. 2(0-4) Majors or approval of department.
Assessment of psychodynamics and psychopathology. Individual case studies based on interviews and psychological tests. Behavioral correlates of psychodynamic problems.
- 829. Personality Theory II**
Winter. 4(3-0) Majors or approval of department.
Developmental and social-learning approaches to personality and psychopathology; social learning and psychodynamics, socialization, maturational theories, applications of classical and operant conditioning. Psychotherapeutic implications.
- 830. Clinical Assessment II**
Winter. 2(0-4) 828 or approval of department.
Clinical assessment of children. Individual case studies making systematic use of behavior observations, interviews, and standardized tests. Integration of data and principles of development of new assessment procedures.
- 831. Personality Theory III**
Spring. 4(3-0) Majors or approval of department.
Interpersonal and phenomenological approaches to personality theory. Survey of major conceptualizations and principles relating to the presentation of self in individual and group settings. Psychotherapeutic implications.
- 832. Clinical Assessment III**
Spring. 2(0-4) 830 or approval of department.
Self-appraisal and investigation of interpersonal transactions in two-person and larger groups. Standardized techniques, individual case studies, and principles of development of new methods.
- 835. Experimental Psychology: Social**
Fall. 4(2-4) One course in experimental psychology and 315.
Intensive experience in designing, executing, reporting and evaluating research in social psychology, including an individual research project.
- 837. Psychological Aspects of Politics**
Fall, Winter, Spring. 4(3-0) Interdepartmental with and administered by the Political Science Department.
Relevance of psychological concepts, theories and methods for the study of political institutions, organizations and behavior.
- 840. Advanced Social Psychology: Cognitive Approaches**
Winter. 4(3-0) 815; 20 credits in the social sciences.
Contemporary theory and research in social psychology dealing with attitude organization and cognition, values, attitudes and behavior, attitude change and balance theories.
- 841. Advanced Social Psychology: Group Processes**
Spring. 4(4-0) 815; 20 credits in social sciences.
Contemporary theory and research dealing with the individual in a group context.
- 845. Infancy and Early Childhood**
Spring. 4(3-1) Majors or approval of department.
Human infancy: conception to three years. Developmental study of: prenatal life, personality, learning, perception, sensory stimulation and deprivation, neurophysiology, psychophysiology, language and cognition.
- 846. Advanced Child Psychology**
Fall, Spring. 4(3-0)
Psychological theories and research methods and findings related to the intellectual, emotional, perceptual, social and personality development of the child.
- 855. Engineering Psychology: Individual Man-Machine Behavior**
Winter. 4(2-0)
Behavior of individuals operating equipment; effects of control and display design, cockpit layout, legibility, physical dimensions; principles for reducing errors; applications to aerospace, military, highway, industrial, and other problems.
- 859. Personnel Development**
Spring. 4(2-2) Fifteen graduate credits.
Psychological principles and methods in the training and development of personnel at all levels of supervision and leadership.
- 860. Advanced Industrial Psychology**
Fall. 4(3-0) A course in statistics and 20 credits in the social sciences.
Industrial psychology, including such sub-areas as personnel psychology, human factors, and industrial social psychology.

- 862. Organizational Psychology**
Winter. 4(2-0) Fifteen graduate credits.
Survey of current theories of individual behavior in complex organizations. Examples from research in industry, government, and other complex organizations.
- 865. Advanced Neurobiology**
Winter of odd-numbered years. 3(3-0) BPY 825. Interdepartmental with the departments of Biophysics, Biomechanics, Physiology and Zoology and administered by the Department of Biomechanics.
Basic organization, structure and function of neural networks comprising sensory, motor, and autonomic systems including examples from invertebrates and vertebrates.
- 866. Personnel Selection and Evaluation**
Fall. 4(2-0) Fifteen graduate credits.
Critical treatment of research methods and instruments in personnel selection and evaluation as applied to governmental, business and industrial situations.
- 867. Field Training in Industrial Psychology**
Fall, Winter, Spring. Variable credit.
Provides field experience in selected companies to familiarize students with problems and to give training in consulting and research.
- 868. Psychological Theory and Research in Advertising**
Winter. 4(2-0) Ten graduate credits.
Survey and integration of psychological theory and research in advertising in such areas as: motivation, preception, psychophysiology.
- 870. Introduction to Research Methods in Ecological Psychology**
Spring. 4(4-0) 815, 816, 817 or approval of department.
What and why of experimental ecological psychology; planning, action, evaluation, dissemination of information. Researchable problems, funding, dynamics of research teams, identifying ecological variables. Class work and community research.
- 871. Advanced Research Methods in Ecological Psychology**
Fall. 4(4-0) 870.
Applications of ecological psychology; measurement; hypotheses and research plans; initiating, maintaining, terminating naturalistic psychological research; evaluating and publishing results. Review of selected experiments. Class work plus research in community.
- 872. Experimental Production of Social Change**
Winter. 4(4-0) 870, 871.
Use of psychological research to produce social change. Creation of acceptance of social change. Examination of effectiveness of experimental intervention into social systems. Class work plus community research.
- 885. Vertebrate Neural Systems I**
Fall of odd-numbered years. 5(3-4) Approval of department; ANT 815 and BPY 825 recommended. Interdepartmental with the Zoology, Biophysics, and Physiology Departments.
Structure and function of major component systems of vertebrate brains, their evolution, ontogeny and comparative analysis in mammals, birds, reptiles, amphibians and fish. Interrelation of behavioral, anatomical and physiological studies.
- 886. Vertebrate Neural Systems II**
Winter of even-numbered years. 5(3-4)
885. Interdepartmental with the Biophysics, Physiology and Zoology Departments and administered by the Zoology Department.
Continuation of 885. Major component systems of vertebrate brains, their evolution, ontogeny, and comparative analysis in mammals, birds, reptiles, amphibians and fish. Interrelation of behavioral, anatomical, and physiological studies.
- 889. Advanced Issues in Humanistic Psychology**
Winter, Spring. 3(3-0) May re-enroll for a maximum of 6 credits. 489 and approval of instructor.
Identification and critical evaluation of social and philosophical issues tacitly imbedded in psychology, e.g., the specificity of the nature of man; human versus physical reality; freedom; modes of knowledge; ethical values.
- 890. Special Problems**
Fall, Winter, Spring, Summer. Variable credit. Approval of department.
- 899. Research**
Fall, Winter, Spring, Summer. Variable credit. Approval of department.
- 901. Psychological Research Methods**
Fall. 3(2-0) One graduate course in experimental psychology and 816.
Nature, design and critique of research; theory and interpretation of results; analysis of published research and student results.
- 902. Special Research Techniques**
Fall, Winter, Spring. 1 to 4 credits May re-enroll for a maximum of 12 credits. Graduate students and approval of department.
- 902A. Laboratory in Advanced Physiological Psychology I**
Fall. 5(2-4) Graduate students and approval of department.
Physiological mechanisms underlying behavior. Development of skills in the methods, techniques, and instrumentation necessary for research in a variety of areas concerned with physiology and behavior with special emphasis on ablative procedures.
- 902B. Laboratory in Advanced Physiological Psychology II**
Winter. 5(2-4) 902A.
Detailed examination of the physiological mechanisms underlying behavior. Development of skills in the methods, techniques, and instrumentation necessary for research in a variety of areas concerned with physiology and behavior with special emphasis on electrical stimulation and recording.
- 905. History and Systems**
Winter. 4(3-0) Thirty graduate credits in psychology.
Major scientific, cultural, philosophical, and personal influences in the development of psychology. Analysis of persisting issues.
- 914. Seminar in Advanced General Psychology**
Fall, Winter, Spring. 1 to 4 credits. May re-enroll in different areas for a maximum of 24 credits. Thirty graduate credits in psychology or approval of department.
Critical study of a selected area such as sensation, perception, motivation, emotions, learning, physiological, comparative, thought and language.
- 924. Seminar in Measurement**
Fall, Winter, Spring. 1 to 4 credits. May re-enroll in different areas for a maximum of 16 credits. Thirty graduate credits with 15 of them in psychology.
Critical study of a selected area such as factor analysis, pattern analysis, partial and multiple correlational analysis, psychophysical methods, scaling, reliability and validity, and factorial designs.
- 926. Personality Measurement I: Free Response Techniques**
Fall. 4(3-1) Thirty graduate credits in psychology, including 815 and 826.
Development, validation, and other characteristics of selected free response measures; use in current personality research.
- 927. Personality Measurement II: Structured Measures and Measures of Overt Behavior**
Spring. 4(3-1) Thirty graduate credits in psychology, including 815 and 826.
Structured questionnaires and behavioral measures as tools in personality research. Development and characteristics of existing and new instruments.
- 928. Practicum: Psychological Clinic I**
Fall. 3(2-2) Approval of department.
Introduction to clinical evaluation and treatment. Supervised experience in psychodiagnosis and psychotherapy of adults and children in the Psychological Clinic. Primary focus on work with families. Didactic seminar in related theory and research.
- 930. Practicum: Psychological Clinic II**
Winter. 3(2-2) 928.
Continuation of 928.
- 932. Practicum: Psychological Clinic III**
Spring. 3(0-6) 930.
Continuation of 930.
- 934. Seminar in Personality**
Fall, Winter, Spring. 1 to 4 credits. May re-enroll in different areas for a maximum of 18 credits. Thirty graduate credits with 15 of them in psychology.
Clinical study of a selected area such as theory, assessments, dynamics, structure, the self and determinants.
- 935. Contemporary Theory and Research in Social Psychology**
Fall. 3(2-0) Thirty graduate credits in psychology.
An intensive analysis of contemporary social psychological research monographs illustrating theoretical and methodological positions.
- 936. Attitudes and Personality**
Winter. 3(2-0) Thirty graduate credits.
Review and analysis of research on sentiments, beliefs and opinions, authoritarianism, pseudo-authoritarianism, and democratic personality; functions, resistance to change and relation to value systems and ideology.
- 937. Individual Behavior and Complex Groups**
Spring. 3(2-0) Thirty graduate credits.
Problems of research design and experimental method in the study of the relationship of the individual to the complex organization.

**Descriptions — Psychology
of
Courses**

944. Seminar in Social Psychology
Fall, Winter, Spring. 1 to 4 credits.
May re-enroll in different areas for a maximum of 16 credits. Thirty graduate credits or approval of department.

Critical study of a selected area such as roles, communication and persuasion, individual interaction within small and large groups, behavior in relation to norms and interpersonal distances.

954. Seminar in Developmental Psychology
Fall, Winter, Spring. 1 to 4 credits.
May re-enroll for a maximum of 16 credits in different areas. Thirty graduate credits, 3 of which must be in child psychology.

Critical study of a selected area such as theory, techniques and methods of observation, parental attitudes and practices, intellectual, personal and social development, motivational, emotional, perceptual, and intellectual issues.

956. Engineering Psychology: Systems Approach
Spring. 4(2-0)

Human factors in "system" operation; subsystems, analysis methods, criteria, information processing, communication, trade-offs; application to aerospace, military, highway, industrial, and other problems.

969. Seminar in Industrial Psychology
Fall, Winter, Spring. 1 to 4 credits.
May re-enroll in different areas for a maximum of 16 credits. Thirty graduate credits including 15 in psychology.

Critical study of a selected area such as interpersonal relations in industry, personnel selection, evaluation and classification, training, leadership, supervision, motivation of workers, safety engineering psychology and contemporary literature.

970. Seminar in Ecological Psychology
Fall, Winter, Spring. 4(4-0) May re-enroll for a maximum of 12 credits. Approval of department.

Critical study of a contemporary ecological psychology issue such as the psychological aspects of over-crowding, the interpersonal and intrapersonal conflicts created by environmental degradation, and similar current topics.

973. Rorschach Method
Winter. 4(4-0) 832.

History and hypotheses of the method. Review of research. Administration and scoring of the test. Introduction to interpretation.

975. Advanced Practicum: Psychological Clinic
Fall, Winter, Spring. Variable credit. 932.

Clinical experience in assuming responsibility for total case integration and interpretation of findings to parents and agencies.

976. Psychopathology: Psychoanalytic Theory, Neuroses and Psychosomatics
Fall. 3(3-0) 427, 832.

Kraepelinian, Pavlovian, and Freudian traditions in abnormal psychology and psychiatry. Psychoneuroses and psychosomatics with major emphasis in psychoanalytic approaches. Research and problems. Psychogenic and somatogenic positions in psychopathology.

977. Psychopathology: Psychoses and Developmental Disorders
Winter. 3(3-0) 976.

Behavioral and development disorders such as psychopathy, delinquency, mental deficiencies; selected functional and organic psychotic syndromes; psychosis as distinguished from psychoneurosis; continuity versus discontinuity of normal to abnormal behavior. Research considerations.

979. Counseling and Psychotherapy
Fall. 3(2-2) Approval of department.

Psychotherapy with late adolescents and adults. Various points of view with emphasis on interpersonal relationship and client-centered approaches. Techniques for introducing therapeutic movement. Study of tape recordings and research findings.

980. Practicum: Individual Counseling and Psychotherapy
Winter. 3(2-2) 979 and approval of department.

Detailed study of psychotherapeutic interviews aimed at developing skill as a psychotherapist. Therapeutic and assessment techniques, interview dynamics and psychotherapeutic movement studied by means of verbatim transcriptions, tape recordings, films, role playing, and observation.

981. Practicum: Counseling and Psychotherapy
Spring. 3(2-2) 980 and approval of department.

Counseling with a variety of clients at the University Counseling Center. Group and individual discussions of problems, processes, counselor-client interaction, and professional ethics.

982. Advanced Practicum: Counseling and Psychotherapy
Fall, Winter, Spring. Variable credit. 981.

Counseling and psychotherapy with a variety of clients of the University Counseling Center.

983. Child Psychotherapy
Winter. 2 to 4 credits. 981.

Dynamic process underlying therapy with children; methods and techniques; the child's symbolic communications through language, art, and play materials; assessing progress of therapy; review of research. Practicum cases.

984. Group Psychotherapy
Spring. 3(2-2) 981.

Research-oriented treatment of the theories, principles and techniques in group psychotherapy. Role of the leader, problems of member selection and evaluation of progress. Limited, supervised experience as a group participant.

985. Seminar in Clinical Psychology
Fall, Winter, Spring. 1 to 4 credits.
May re-enroll in different areas for a maximum of 16 credits. Forty-five graduate credits in psychology.

Critical study of a selected area such as theories, diagnosis, projective techniques, psychotherapies, hypnosis, psychopathologies.

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

**PUBLIC AFFAIRS
MANAGEMENT**

See Agricultural Economics

**RACIAL AND
ETHNIC STUDIES* RES**

College of Social Science
College of Urban Development

313. Development of American Indians as an Ethnic Minority
Spring. 4(4-0) Majors: U D 202; non-majors: approval of department. ANP 419 recommended.

The history of the contact between Euro-Americans and American Indians is examined from the perspective of Native Americans.

401. Black (African) Diaspora
Fall. 4(4-0) Majors: Juniors and U D 202; others: Juniors or approval of department.

Critical inquiry and analysis of the dispersion of black people in global perspective. Historical orientation to settlement patterns, economic, social and political change and development.

417. Minorities and Women in the World of Work
Fall, Spring. 4(4-0) Senior majors or approval of department. Interdepartmental with the Department of Management and the School of Social Work and administered by the Department of Management.

Racial, ethnic, sexual and other minority experiences and problems in the world of work. Awareness training approach (what it's like to be . . .) featuring movies, guests, subgroup discussions and encounter-type exercises.

480. Independent Study
Fall, Winter, Spring, Summer. 2 to 4 credits. May re-enroll for a maximum of 12 credits. College core or approval of department. Supervised individual research in a racial or ethnic problem area of interest.

485. Selected Topics in Racial and Ethnic Studies
Fall, Winter, Spring. 4(4-0) May re-enroll for a maximum of 12 credits. College core or approval of department.

Contemporary issues and problems in the minority programs.

RELIGIOUS STUDIES REL**
College of Arts and Letters

150. Understanding Religious Man
Fall, Winter, Spring. 3(3-0)
Nature of religion; character of reality; symbolism, myth, sacred space, sacred time; rationalism and the nature of religious knowledge; religion and morals; psychology of religious experience; societal function of religion.

151. Introduction to Western Religions
Fall, Winter, Spring. 3(3-0)
Beliefs, institutions, and cultural orientations of Western religions, following a comparative approach and comprehending the ancient religion of Israel, Zoroastrianism, Judaism, Graeco-Roman elements, Christianity, and Islam.

*Established March 1, 1973.
**Name change effective February 1, 1973. Formerly Department of Religion.