Courses

608. Psychiatry and Behavioral Science Clerkship

Fall, Winter, Spring, Summer. 2 to 12 credits. Admission to a college of medicine; grade P in all courses in terms 1 through 8 for College of Osteopathic Medicine students.

Contemporary practice of psychiatry utilizing supervised in-patient, out-patient, emergency and community mental health services.

609. Sub-Specialty Clerkship

Fall, Winter, Spring, Summer. 4 to 16 credits. May reenroll for a maximum of 16 credits. PSC 608.

Sub-specialty experiences in Psychiatry in clinical settings.

PSYCHOLOGY

PSY

College of Human Medicine College of Social Science

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.

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) PSY 160 or PSY 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) PSY 160 or TE 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.

244. Developmental Psychology: Infancy through Childhood

Fall, Winter, Spring, Summer. 4(4-0) PSY 160 or PSY 170 or T E 200.

Developmental psychology of the infant and child including biological, social, cognitive, moral, perceptual and cultural development: relations with care givers and peers as well as development of individual characteristics.

246. Sensitivity to Children I

Fall. 3(2-2) To receive credit PSY 246, PSY 247, PSY 248 must be completed satisfactorily except by prior arrangement with instructor. Sophomores and 3 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 therapist, teachers and parents.

247. Sensitivity to Children II

Winter. 3(2-2) To receive credit PSY 246, PSY 247, PSY 248 must be completed satisfactorily except by prior arrangement with instructor. PSY 246.

Continuation of PSY 246.

248. Sensitivity to Children III

Spring. 3(2-2) To receive credit PSY 246, PSY 247, PSY 248 must be completed satisfactorily. PSY 247.

Continuation of PSY 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.

291. Independent Study: Research Participation

Fall, Winter, Spring, Summer. 1 to 3 credits. May reenroll for a maximum of 6 credits. PSY 160 or PSY 170, PSY 215.

Student participates as an assistant in an ongoing psychological research project under the direction of a staff member in order to become familiar with the procedures of psychological research.

300. Cognitive Psychology

Winter. 4(4-0) PSY 170, PSY 215, 10 credits of psychology or approval of department.

Concepts, theories, methods and research findings in human information processing and cognition; including attention, memory, intelligence, problem solving, decision making, language, and reading.

301. Human Learning and Memory

Winter, Spring, Summer. 4(4-0) PSY 170; PSY 215 or a college level mathematics or statistics course.

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

309N. Fundamentals of Physiological Psychology

(309.) Fall, Spring. 3(3-0) CEM 141, PSL 240. For students in the natural and life sciences. Students may not receive credit in both PSY 309N and PSY 309S.

Central nervous system functional anatomy and physiological bases of behaviors, including neural and hormonal control of biorhythms, reproduction, hunger and thirst.

3098. Survey of Physiological Psychology

(209.) Fall, Spring. 3(3-0) PSY 170. For students in the social sciences and liberal arts. Student may not receive credit in both PSY 309N and PSY 309S.

Current topics in behavioral biology, including: the physiology of learning and memory; hormones and behavior; and human neuropsychology.

312. Learning and Motivation

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

Detailed analysis of basic conditioning processes such as reinforcement, discrimination, generalization, punishment, adverse 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 oddnumbered years. 3(0-4) PSY 170, PSY 215; PSY 312 concurrently.

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

316. Sensory Processes

Winter. 3(3-0) PSY 170; PSY 215 or a college-level mathematics or statistics course. Sense organs and their associated neural systems as they relate to sensory phenomena; emphasis on vision. Review of major methodologies.

317. Perception

Fall. 3(3-0) PSY 170.

Concepts, principles, results, and applications in perception; emphasis on vision.

335. Principles of Social Psychology

Fall, Winter, Spring, Summer. 4(4-0) PSY 160. Students may not earn credit in both PSY 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) PSY 160 or

T E 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.

344. Developmental Psychology: Adolescence and Youth

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

244.

Continuation of PSY 244 covering development during adolescence and youth with emphasis on problems of identity and adjustment to the social environment.

Organizational Psychology 356.

Fall, Spring. 3(3-0) An introductory course in psychology; PSY 255 or MGT 310. Students may not earn credit in both PSY 356 and MGT 419.

Leader behavior, attitudes, interpersonal behavior, motivation and communication of individuals in organizations.

357. Consumer Psychology

Fall, Winter, Spring. 3(3-0) PSY 170; PSY 335 or SOC 251; or approval of depart-

Psychology underlying techniques of effective advertising, selling, and marketing. Psychology relevant to living in a marketing-oriented culture.

Psychology and Social 370.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.

Community Projects I 371.

Fall, Spring. 4(2-4) PSY 160 or PSY 170, approval of department.

Experience in working directly with adolescent offenders from the local community. Techniques of intervention with adolescents, their families, and social systems which affect them.

Community Projects II 372.

Winter, Summer. 4(2-4) PSY 371, approval of department.

Continuation of PSY 371 with primary focus on direct work with adolescents, their families and social systems which affect them.

Community Projects III

Fall, Spring, 4(2-4) PSY 372, approval of department.

Continuation of PSY 372.

390H. Honors Seminar

Fall, Winter, Spring. 1 to 5 credits. May reenroll for a maximum of 15 credits when different topics are offered. Honors students and approval of department.

History, theory, and current research in selected areas of psychology, including personality, motivation, perception, learning, industrial, ecological, mathematical, developmental, social, and clinical.

Selected Topics in Psychology 400.

Fall, Winter, Spring, Summer. 2(2-0) to 5(5-0) May reenroll for a maximum of 12 credits. Approval of department.

Selected topics in the areas of experimental, developmental, social, industrial, personality, mathematical, ecological, or clinical psychol-

Experimental Psychology: 403. Human Learning

Winter, 4(4-0) PSY 215 or approval of department.

Application of principles of learning and motivation to humans of various ages and abilities in educational and noneducational settings. Some application to animal behavior. Extended practicum (PSY 490-PSY 491) may be taken concurrently to complete appropriate projects.

Modern Viewpoints in 405. Psychology

Fall, Winter, Spring. 4(4-0) 10 credits in psychology.

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

Psycho-ethology 406.

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

Advanced Concepts in Physiological Psychology

Fall, Spring. 4(4-0) PSY 309N 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.

Psycholinguistics 414.

Winter, 4(4-0) PSY 301 or LIN 401.

Experimental psychology of language, including speech perception, sentence processing, prose comprehension and memory, and language production.

Psychological Tests and Measurements

Fall, Winter, Spring. 5(5-0) PSY 215.

Methods, techniques, and instruments for measuring individual differences in behavior. Standard methods of construction, critical analysis of representative tests, criteria for evaluating and selecting tests, values and limitations of tests.

Child Psychopathology 424.

Winter, Spring. 3(3-0) PSY 244 or approval of department.

Description, etiology, and developmental pattern of behavior problems of children and ado-lescents; introduction to child and family treatment approaches.

Abnormal Psychology 425.

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

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.

Personality: Dynamic Theories Fall, Winter, Spring. 3(3-0) PSY 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) PSY 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: Personalitu

Spring. 3(3-0) PSY 215.

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 prob-abilities, and aggression. Emphasizes experimental techniques most relevant for those with clinical and social psychological interests.

Experimental Psychology: Personality

Spring. 2(0-4) PSY 215, PSY 430 or 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.

Psychology of Communication 436. and Persuasion

Fall, Spring. 3(3-0) PSY 335 or SOC

Psychological processes underlying communication and persuasion; learning and using com-munication 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) PSY 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 interna-tional relations and tensions.

Research Methods in Social Psychology

Fall, Winter, Spring. 4(2-4) PSY 215; PSY 335 or SOC 251; I course in experimental psuchology.

Critical examination of problems, principles, methods, techniques, materials, results and conclusions in relation to theory in social psychology, including experimentation and demonstration.

Selected Topics in the Psychology of Women 439.

Fall, Spring. 3(3-0) May reenroll 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

Advanced Developmental 444. Psychology

A. Social Development

Fall. 4(4-0) PSY 160, PSY 170, PSY 215, PSY 244 or approval of department.

Theories and recent research in social development of infants, children, and adolescents.

B. Cognitive Development

Winter, 4(4-0) PSY 160, PSY 170, PSY 244 or approval of department.

Recent approaches to cognitive development. A view of selected theories and experiments.

C. Language Development

Spring. 4(4-0) PSY 160, PSY 170, PSY 244 or approval of department.

Psychological theories and experiments in the development of language in the child, including both social and cognitive effects of language development.

D. Applied Development

Fall, Summer. 4(4-0) PSY 160, PSY 170, PSY 244 or approval of department.

Selected behavior problems in development. Topics may include; child psychopathology, physical and emotional disabilities, speech disorders, cognitive-intellectual deficits.

455. Personnel Research Techniques

Fall, Spring. 4(3-2) PSY 215, PSY 255.

Quantitative psychological research technique applied to typical personnel problems in industry and government.

456. Personnel Training and Development

Spring. 4(4-0) PSY 356 or MGT 419.

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.

470. Research Methods in Ecological Psychology

Spring. 4(3-2) PSY 160, PSY 170, PSY 215; PSY 370 or approval of department.

Methods, techniques, and measurement instruments for applying psychology to the solution of contemporary human problems. Critical analysis of methods for creating and measuring social change.

484. Literature and Psychology

Spring. 4(4-0) Juniors or approval of department. Interdepartmental with and administered by the Department of English.

An application of psychological theory to the study of literature and an exploration of the ways in which literature enriches the theory which helps to illuminate it.

485. Psychology of Love and Maturity

Fall, Winter. 4(4-0) Juniors and 3 courses in psychology.

The function of love in human existence. Varieties of love; their effect upon the growth of the person in terms of awareness, integration, authenticity, social concern and responsibility, maturity and fulfillment.

486. Psychology of Music

Fall, Summer. 3(3-0) Approval of department. Interdepartmental with the Department of Music.

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) PSY 486. Interdepartmental with the Department of Music. 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) Juniors and 3 courses in psychology.

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 humans as potentially rational and ethical beings.

490. Special Problems in Psychology

Fall, Winter, Spring, Summer. 1 to 6 credits. May reenroll for a maximum of 12 credits. Combined credits in PSY 490 and PSY 491 may not exceed 12. Juniors, approval of department.

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

491. Participation in Psychological Projects

Fall, Winter, Spring, Summer. 1 to 6 credits. May reenroll for a maximum of 12 credits. Combined credits in PSY 490 and PSY 491 may not exceed 12. Juniors, approval of department.

Each student will participate in a psychological project under direction of a staff member.

499H. Senior Project

Fall, Winter, Spring. 3(0-6) May reenroll for a maximum of 6 credits. PSY 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. Integration of theoretical and empirical material.

804A. Neuroscience Laboratory I

(902A.) Winter. 4(2-4) Approval of instructor. Interdepartmental with Biophysics and the departments of Physiology, and Zoology.

Development of skills in the methods, techniques and instrumentation necessary for research in a variety of areas concerned with neuroscience.

804B. Neuroscience Laboratory II

(902B.) Spring. 4(2-4) PSY 804A. Interdepartmental with Biophysics and the departments of Physiology, and Zoology.

Continuation of PSY 804A.

805. History and Systems

Fall of even-numbered years. 4(3-0) Psychology majors or approval of department. Major scientific, cultural, philosophical, and personal influences in the development of psychology. Anlaysis of persisting issues.

806. Advanced Comparative Psychology

Fall of odd-numbered years. 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.

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)

Experimental psycholinguistics, including speech perception, sentence processing, prose comprehension and memory, language production, and language acquisition.

815. Advanced Psychometrics

Fall, Winter. 4(4-0) A course in statistical inference; majors or approval of department.

Theory and practice in analysis and interpretation of psychological data.

816. Advanced Psychometrics

Winter, Spring. 4(4-0) PSY 815.

Continuation of PSY 815.

817. Advanced Psychometrics Spring. 4(4-0) PSY 816.

Multivariate methods of test analysis: multiple and partial correlation, factor and pattern analysis.

818. Test Construction

Winter. 4(4-0) PSY 817.

Theory, methods, and techniques in the preparation and development of psychological test items and tests.

820. Mathematical Models in Psychology I

 $Fall.\ 4(4-0)\ MTH\ 111\ and\ STT\ 201\ or\ approval\ of\ department.$

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 of even-numbered years. 4(4-0) PSY 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 of even-numbered years. 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.

828. Clinical Assessment I

Fall. 2(0-4) Majors or approval of department.

Assessment of psychodymanics and psychopathology. Individual case studies based on interviews and psychological tests. Behavioral correlates of psychodymanic problems.

830. Clinical Assessment II

Winter. 2 or 3 credits. PSY 828, 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.

832. Clinical Assessment III

Spring. 2 or 3 credits. PSY 830, 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.

833. Research Methods in Clinical Psychology

Fall. 4(3-2) Majors or approval of de-

Research strategies and the clinical method: types of evidence, similarities and differences. Questionnaries and scale construction. Introduction to design and data analysis. Social psychological and ethical issues in clinical research.

835. Experimental Psychology: Social Fall. 4(2-4) One course in experimental

psychology.

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 Department of Political Science.

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) PSY 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) PSY 815; 20 credits in social sciences.

Contemporary theory and research dealing with the individual in a group context.

845. Developmental Psychology: Infancy

Fall. 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. Developmental Psychology: Childhood

Winter, 4(4-0) Majors or approval of department.

Psychological theories and research methods and findings related to the intellectual, emotional, perceptual, social and personality development of the child.

847. Developmental Psychology: Adolescence and Youth

Spring, 3(3-0) Majors or approval of department.

Psychological theories and research methods and findings related to the intellectual, emotional, perceptual, social and personality development of the adolescent and young adult.

850A. Developmental Psychopathology

Fall. 3(3-0) Approval of department.

Developmental and systems perspective to childhood and adolescent psychopathology. Epidemiological research, classification systems, mental retardation, learning disabilities, and pervasive developmental, psychotic, and organic disorders.

850B. Developmental Psychopathology II

Winter. 3(3-0) PSY 850A or approval of department.

Externalizing and internalizing disorders of childhood and adolescence including conduct, affective, anxiety-withdrawal, adjustment reaction, personality, eating, psychosexual, and disorders with physical manifestations.

850C. Developmental Psychopathology III

Spring. 3(3-0) PSY 850B or approval of department.

Adolescent and adult psychopathology from a developmental perspective; marital and family pathology as system dysfunctions; conceptual frameworks for these phenomena; description/diagnosis, etiology and intervention with some representative pathologies.

860. Advanced Industrial Psychology

Fall. 4(3-0) Twenty credits in the behavioral sciences or organizational behavior, and a course in statistics.

Industrial and organizational psychology as a science and as a profession.

862. Organizational Psychology

Winter. 4(2-0) Fifteen graduate credits.

Survey of current theorics of individual behavior in complex organizations. Examples from research in industry, government, and other complex organizations.

865. Advanced Neurobiology

(BIM 865.) Spring. 4(4-0) BPY 827. Interdepartmental with Biophysics and the departments of Anatomy, Physiology, and Zoology. Administered by the Department of Anatomy.

Basic organization, structure and function of neural networks comprising sensory, motor, and autonomic systems including examples from invertebrates and vertebrates. Attendance at neuroscience seminar is required.

866. Personnel Selection and Evaluation

Fall of even-numbered years. 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.

870. Introduction to Ecological Psychology

Fall. 4(4-0) PSY 815 concurrently 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 Ecological Psychology Winter. 4(4-0) PSY 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

Spring. 4(4-0) PSY 870, PSY 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.

873. Ecological-Community Psychology Research Methods I

Fall. 4(4-0) Approval of department.

Ecological-community psychology literature with the intent of identifying social problems, methods for their solution, and the philosophical, political, and role-definition issues confronting the ecological-community psychologist. At least eight hours per week in a community setting required.

874. Ecological-Community Psychology Research Methods II

Winter. 4(4-0) PSY 873, approval of department.

Planning and design of innovative field research including research planning, experimental design, quasi-experimental design, program evaluation, measurement, data-gathering, validity and reliability, and the dissemination of research results. At least eight hours per week in a community setting required.

875. Ecological-Community Psychology Research Methods

Spring. 4(4-0) PSY 874, approval of department.

Implementation of field research and data analysis; coverage of SPSS commands and programs. At least eight hours per week in a community setting required.

880A. Basic Concepts and Issues in Clinical Psychology

Fall. 3(3-0) Clinical majors or approval of department.

Concepts and issues underlying research and professional practice in modern adult clinical psychology. Emphasis is on personality development and clinical interventions, such as psychotherapy, behavior therapy, family therapy, and community approaches.

880B. Basic Concepts and Issues in Clinical Psychology

Winter, $3(3-\bar{0})$ PSY 880A, approval of department.

Continuation of PSY 880A.

880C. Basic Concepts and Issues in Clinical Psychology

Spring. 3(3-0) PSY 880B, approval of department.

Continuation of PSY 880B.

885. Vertebrate Neural Systems I

Fall of odd-numbered years. 5(3-4) Approval of department; ANT 815 and BPY 827 recommended. Interdepartmental with Biophysics and the departments of Physiology, and Zoology.

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) PSY 885. Interdepartmental with Biophysics and the departments of Physiology, and Zoology. Administered by the Department of Zoology.

Continuation of PSY 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 reenroll for a maximum of 6 credits. PSY 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. 1 to 12 credits. May reenroll for a maximum of 36 credits. Approval of department.

892. Contemporary Clinical Psychology Research

Fall, Winter. 1(0-2) Must reenroll for a maximum of 2 credits. Graduate student status in the Department of Psychology.

Through a series of invited presentations of current research activities and interests by guest faculty, this course facilitates the exploration of research projects, suitable for M.A. theses.

899. Master's Thesis Research

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

902. Special Research Techniques

Fall, Winter, Spring, 1 to 4 credits. May reenroll for a maximum of 12 cedits. Graduate students and approval of department.

908. Seminar in Organization Theory

Winter. 4(4-0) MGT 806; doctoral candidates; master's candidates with approval of department. Interdepartmental with and administered by the Department of Management. Directed reading and research on issues in contemporary organization theory.

914. Seminar in Advanced General Psychology

Fall, Winter, Spring. 1 to 4 credits. May reenroll 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 reenroll 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.

928. Practicum: Psychological Clinic

Fall. 2 to 5 credits. 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. 2 to 5 credits. PSY 928. Continuation of PSY 928.

932. Practicum: Psychological Clinic III

Spring. 2 to 5 credits. PSY 930. Continuation of PSY 930.

934. Seminar in Personality

Fall, Winter, Spring. 1 to 4 credits. May reenroll in different areas for a maximum of 16 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.

936. Attitudes and Personality

Winter. 3(2-0) Thirty graduate credits.

Review and analysis of research on sentiments, beliefs and opinions, authoritarianism, pseudoauthoritarianism, and democratic personality; functions, resistance to change and relation to value systems and ideology.

944. Seminar in Social Psychology

Fall, Winter, Spring. 1 to 4 credits. May reenroll 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.

950A. Child and Family Interventions: Dynamic Child Psychotherapy

Fall. 3(3-0) PSY 850C or approval of department.

Dynamic processes 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.

950B. Child and Family Interventions: Behavioral/Cognitive Therapies

 $Winter, 3 (3-0) \, PSY \, 850C \, \, or \, approval \, of \, \, department.$

Behavioral/cognitive approaches to interventions with children in family, peer, school, and community contexts; behavioral/cognitive processes, theory, assessment, methods, and research. Underlying behavioral change.

950C. Child and Family Interventions: Family and Community Systems Approaches

Spring, 3(3-0) PSY 850C or approval of department.

Family and community systems-based intervention in child, marital, and family problems. Conjoint family therapy, primary prevention and community program interventions.

954. Seminar in Developmental Psychology

Fall, Winter, Spring. 1 to 4 credits. May reenroll 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.

961. Personnel Training and Training

Winter of even-numbered years. 4(4-0) PSY 860 or approval of instructor.

Theory and research in training and development of personnel at all organization levels. Evaluation of training programs.

962. Psychology of Motivation and Attitudes at Work

 $\begin{array}{c} {\bf Spring\ of\ odd-numbered\ years.\ 4(4-0)} \\ {\bf PSY\ 860\ or\ approval\ of\ instructor.} \end{array}$

Theoretical approaches to the enhancement of work and life satisfaction. Comparison of approaches to worker motivation. Role of satisfaction in motivation models.

963. Leadership and Managerial Behavior

Spring of even-numbered years. 4(4-0) PSY 860 or approval of instructor.

Role of the leader in effecting individual, group, and organizational performance.

964. Organizational Diagnosis and Change

Winter of odd-numbered years. 4(4-0) PSY 860 or approval of instructor.

Analysis of organizational functioning and the effective introduction, spread, and adoption of change.

969. Seminar in Industrial Psychology

Fall, Winter, Spring. 2 to 4 credits. May reenroll for a maximum of 16 credits. Approval of department.

Specialized areas in industrial and organizational psychology.

970. Seminar in Ecological Psychology

Fall, Winter, Spring. 4(4-0) May reenroll 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) PSY 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.

PSY 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) PSY 427, PSY 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) PSY 976.

Behavioral and development disorders such as psychopathy, deliquency, 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) PSY 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) PSY 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. I to 4 credits. May reenroll for a maximum of 12 credits. PSY 981 and approval of department.

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

985. Seminar in Clinical Psychology

Fall, Winter, Spring. 1 to 4 credits. May reenroll 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. Doctoral Dissertation Research

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

PUBLIC AFFAIRS MANAGEMENT

See Agricultural Economics.

RADIOLOGY

RAD

College of Human Medicine College of Osteopathic Medicine

480. Nuclear Medicine for Medical Technologists

Winter. 3(2-2) PHY 237, PHY 257; MTH 109; Junior or Senior Medical Technology majors.

Terminology and fundmentals of radionuclides. Application to nuclear medicine. Radiation measurement, protection, biologic effects with discussion of instruments and imaging systems. Principles of radioimmunoassay. Radiopharmaceutical techniques and clinical interpretation.

501. Radiologic Anatomy

Fall, Summer. 2(2-0) Approval of department.

Principles and techniques of X-ray use. Identification of anatomical structures depicted on X-ray films.

525. Fundmentals of X-ray Interpretation

Fall, Winter, Spring, Summer. 2(2-0) Admission to College of Human Medicine or College of Osteopathic Medicine. Others: approval of department.

Beginning laboratory course in recognition and interpretation of the normal and abnormal X-ray image. Use of X-ray as alternative diagnostic approach in efficient management of patients.

526. Chest Radiology

Fall, 2(2-0) RAD 525.

Principles of chest radiography. Normal chest radiogram and radiographic study of chest diseases, with emphasis on pathophysiologic and anatomic correlation.

527. Traumatology

Winter. 2(2-0) RAD 525.

Clinical and radiographic evaluation of injured patients. Emphasis on efficacy of radiologic procedures.

528. Abdominal Radiology

Spring. 2(2-0) RAD 525 or approval of department.

Principles and analysis of abdominal imaging systems.

550. Decision Analysis in Medicine

Fall, Spring. 2(2-0) Graduate/ Professional students or approval of department.

Terminology and fundamentals of objective decision analysis; application to problems in diagnosis and treatment. Diagnostic test performance, patient management strategies, utility analysis, cost-effectiveness, patient's role in medical decisions.

590. Special Problems in Radiology

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

Special aspects of radiology and the use of X-rays in the efficient management of patients.

609. Radiology Clerkship

Fall, Winter, Spring, Summer. 4 to 17 credits. May reenroll for a maximum of 17 credits. H M 602.

Office and hospital based experience to acquaint the student with basic radiological information and develop X-ray interpretation skills.

610. Radiation Therapy Clerkship

Fall, Winter, Spring, Summer. 4 credits. H M 602; MED 608 and PHD 608 or SUR 608.

Basic instruction in radiation therapy procedures and materials.

611. Nuclear Medicine Clerkship

Fall, Winter, Spring, Summer. 4 credits. H M 602; MED 608 and PHD 608 or SUR 608.

Diagnostic and therapeutic procedures in nuclear medicine.

RELIGIOUS STUDIES REL

College of Arts and Letters

101. Elementary Hebrew

Fall. 4(4-1) Interdepartmental with and administered by Hebrew.

Introduction to the Hebrew language, with pronunciation and conversation practice, reading and writing, and basic grammatical analysis of biblical and modern Hebrew.

102. Elementary Hebrew

Winter, 4(4-1) HEB 101. Interdepartmental with and administered by Heb-

Continuation of HEB 101.

103. Elementary Hebrew

Spring. 4(4-1) HEB 102. Interdepartmental with and administered by Heb-

Continuation of HEB 102.

150. Exploring Religion (A)

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

The nature of religious language and belief; sacred time, space, and literature; religious myths, rituals, and symbols; varieties of religious experience; the question of religious knowledge and truth.

151. Western Religions (A)

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

Historical-comparative approach to Jewish, Christian, and Muslim beliefs, practices, and world-views, including views of God and other supernatural beings, nature and destiny of man, paths for spiritual achievement, death and afterlife.

152. Eastern Religions (A)

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

Historical-comparative approach to Hindu, Buddhist, Confucian, Taoist, and Shinto beliefs, practices, and world-views, including views of: nature of ultimate reality, nature and destiny of man, death and beyond.