

**Descriptions — Political Science  
of  
Courses**

**911. Theories of Administrative Organization**  
*Winter. 3(3-0) Majors or approval of department.*

Analysis of some recent contributions by the behavioral sciences to formal organization theory.

**914. Comparative Public Administration**  
*Winter. 3(3-0) Majors or approval of department.*

Comparative study of state administrative systems, public policy, and politics in major, industrialized countries. Analysis of market regulation, planning, bureaucracy, and public spending.

**916. Development Administration**  
*Fall of odd-numbered years. 3(3-0) Interdepartmental with the Department of Agricultural Economics.*

Design and organization of policies, programs and projects for Third World socioeconomic development. Effect of politics and culture on organizational performance. Public management process from planning to evaluation.

**922. Judicial Behavior**  
*Fall of even-numbered years. 3(3-0)*

Design and execution of research in judicial decision making. Projects include both individual and group work, and field as well as library research. Critical evaluation of reports of other research investigations with which seminar projects articulate.

**933. Political Parties**  
*Fall of odd-numbered years. 3(3-0)*

Operation of political parties in the political system. Relationship between party organization, electoral system, and the recruitment and advancement of political leaders. Interaction between parties and other political groups.

**942. Federalism and Intergovernmental Relations**  
*Winter of odd-numbered years. 3(3-0)*

How federal systems originate and are maintained; patterns in allocations of power between national and state levels; the political processes involved in intergovernmental relations, cooperative federalism; trends in American federalism.

**943. Community Decision Making**  
*Winter of even-numbered years. 3(3-0)*

Discussion and critique of the power structure literature; emphasis on methods of studying community elites.

**944. State Government and Politics Seminar**  
*Spring of odd-numbered years. 3(3-0)*

Comparative study of state governments based on resources and other aggregate characteristics, political organization and behavior. Models of political process, governmental structure variables and their relation to policy outputs.

**953. The Politics of Selected Areas**  
*Winter of even-numbered years. 3(3-0) May reenroll for a maximum of 9 credits. Approval of department.*

Analysis in depth, using comparative theory and method, of political systems and changes in selected administrative or cultural areas.

**955. Politics, State and Development**  
*Spring of odd-numbered years. 3(3-0)*

Theories of politics and the state as they relate to development and underdevelopment. Analysis of liberal, Marxist and statist perspectives on Third World politics and change. The state as an object of political conflict and an instrument of development policy.

**964. Selected Topics in International Relations**  
*Winter. 3(3-0) May reenroll for a maximum of 9 credits. Approval of department.*

Intensive analysis of special problems and issues such as international political and economic development, international and intercultural communications, international violence, etc.

**973. American Political Thought**  
*Fall of odd-numbered years. 3(3-0)*

Study of the thinkers and social forces which have shaped American political ideology.

**990. Seminar**  
*Fall, Winter, Spring. 3 to 9 credits. May reenroll for a maximum of 27 credits.*

Intensive training in individual or group research. Sections of the seminar may involve one or more doctoral fields and the credit earned will vary accordingly.

**993. Readings in Political Science**  
*Fall, Winter, Spring, Summer. 1 to 6 credits. May reenroll for a maximum of 10 credits.*

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

**PORTUGUESE**

See Romance and Classical Languages.

**PSYCHIATRY PSC**

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

**520. Introduction to Behavioral Medicine**  
*Winter. 2(2-0) Admission to a college of medicine or approval of instructor.*

Discrimination between various concepts of normality, understanding of psychological mechanisms, making observations and inference generation, recognition of normative crises and the psychiatric examination will be taught through lectures and discussions.

**521. Psychopathology**  
*Spring. 3(3-0) PSC 520 or concurrently.*

Recognition, description, and treatment of most psychopathologic states will be taught using lectures, audio-visual presentations, and group discussions.

**533. Fundamentals of Personality Dysfunction**  
*Winter. 3(3-0) Admission to a college of medicine and approval of department; H M 514 concurrently.*

Major psychiatric disorders. Mental disorders and patient behaviors that will be of value in working with nonpsychiatric and psychiatric patients.

**573. Behavioral Problems: Infancy through Adolescence**  
*Fall. 2(2-0) H M 572. Interdepartmental with and administered by the Department of Pediatrics and Human Development.*

Origin, course and treatment of disorders of function and behavior in infancy through early adolescence commonly seen by physicians. Emphasis on role of development and biopsychosocial interaction.

**574. Behavioral-Emotional Problems: Adulthood**  
*Winter. 3(3-0) PHD 573.*

Origin, course and treatment of disorders of and behavior in late adolescence through adulthood commonly seen by primary care physicians. Emphasis on role of development and biopsychosocial interaction.

**590. Special Problems in Psychiatry**  
*Fall, Winter, Spring, Summer. 1 to 6 credits. May reenroll for a maximum of 15 credits. Medical 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 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. Subspecialty Clerkship: Adult Psychiatry**  
*Fall, Winter, Spring, Summer. 4 to 16 credits. PSC 608.*

Subspecialty experiences in psychiatry in clinical settings with adults.

**610. Subspecialty Clerkship: Child Psychiatry**  
*Fall, Winter, Spring, Summer. 4 to 16 credits. PSC 608. Interdepartmental with the College of Osteopathic Medicine.*

Subspecialty experiences in psychiatry in clinical settings with child patients and their families.

**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 different social environments 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. Introduction to Psychology: Brain, Behavior, and Cognition**

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

Principles underlying the behavior of humans and animals. Topics include: neural and endocrine mechanisms of behavior, learning, motivation, sensation, perception, and cognition.

**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 T E 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. Students who have completed more than 6 credits of PSY 490 and PSY 491 combined may not enroll in PSY 246.*

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**

*Fall, Winter, Spring, Summer. 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.

**302. Laboratory in Cognitive Psychology**

*Fall, Winter, Spring. 3(2-2) PSY 170, PSY 215, PSY 300 or PSY 170, PSY 215; PSY 300 concurrently.*

Representative experiments in perception, memory, language, problem solving and decision making including an individual, student-selected project. Class members serve as experimenters and subjects, using microcomputers as laboratory equipment.

**309N. Fundamentals of Physiological Psychology**

*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.

**309S. Survey of Physiological Psychology**

*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. Summer of odd-numbered 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. Summer of odd-numbered years. 3(1-4) PSY 170, PSY 215; PSY 312 concurrently.*

Representative experiments in operant behavior, 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.

**320. Health Psychology**

*Fall, Spring. 3(3-0) PSY 160 or PSY 170.*

Psychological factors influencing health and illness. Topics will include stress and coping, personality and health, symptom perception and reporting, heart disease, cancer, compliance, social support, and health maintenance and promotion.

**325. Psychological Health and Self-Esteem**

*Fall, Winter, Spring. 3(3-0) PSY 160 or PSY 170, PSY 225; or approval of department.*

Psychological understandings of affect as a mediator of stress, self-esteem and powerlessness. Development of psychological health, personal identity and interpersonal competence through principles of affect.

*Approved through Fall 1990.*

**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.

**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.

**356. Organizational Psychology**

*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 department.*

Psychology as a biosocial science relevant to living in a market-oriented society as advertiser, buyer, consumer, seller, supplier or concerned citizen. Psychology of money in different roles.

**370. Psychology and Social Innovation**

*Winter. 3(3-0) PSY 160 or PSY 170.*

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.

## Descriptions — Psychology

### of

### Courses

#### 371. Community Projects I

Fall, Winter, Spring, Summer. 4(2-4)  
PSY 160 or PSY 170, approval of department.  
Students who have completed more than 6 credits of PSY 490 and PSY 491 combined may not enroll in PSY 371.

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

#### 372. Community Projects II

Fall, Winter, Spring, 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.

#### 373. Community Projects III

Fall, Winter, Spring, Summer. 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.

#### 400. Selected Topics in Psychology

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 psychology.

#### 403. Experimental Psychology: Applied Learning

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

Applications of principles of learning to human problems. Animal models of psychopathology. Emphasis on research methods derived from applied behavior analysis. Students conduct a self-change project.

#### 405. Modern Viewpoints in Psychology

Fall, Spring. 3(3-0) 15 credits in psychology.

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

#### 409. 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.

#### 414. Psychology of Language

Winter of odd-numbered years. 4(4-0)  
PSY 300.

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

#### 415. 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.

#### 424. Child Psychopathology

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

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

#### 425. Abnormal Psychology

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

#### 427A. 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.

#### 427B. Survey of Personality Research

(PSY 436.) Fall. 3(3-0) PSY 160, PSY 215, PSY 427A or approval of instructor.

Empirical investigations of personality dynamics and the effects of individual differences on subjective experience and social interaction.

#### 435. Advanced Social Psychology

##### A. Research Methods in Social Psychology

Fall, Winter, Spring. 4(2-4) PSY 215; PSY 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.

##### B. Social Cognition

Fall of even-numbered years. 3(3-0)  
PSY 335 or SOC 251.

Theories and research on social cognition. Person perception, attribution theory, theories of the self, person memory.

##### C. Interpersonal Behavior and Relations

Fall. 3(3-0) PSY 335 or SOC 251.

Theories and recent research in interpersonal behavior. Social exchange, prosocial behavior, aggression, attraction and prejudice.

##### D. Attitudes

Fall. 3(3-0) PSY 335 or SOC 251.

Classical theories of attitude formation and change, dissonance theory, inoculation theory and the persuasion-communication approach.

##### E. Group Behavior

Spring of even-numbered years. 3(3-0)  
PSY 335 or SOC 251.

Theories and research on small group behavior.

##### F. Social Psychology and Society

Winter of even-numbered years. 3(3-0)  
PSY 335 or SOC 251.

Applications of social psychology to social issues, problems and institutions. Topics may include social psychology and the law, political behavior, energy conservation.

#### 439. Selected Topics in the Psychology of Women

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 women.

#### 444. Advanced Developmental Psychology

##### A. Social Development

Fall of odd-numbered years. 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 of even-numbered years. 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 of odd-numbered years. 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 of even-numbered years. 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.

#### 450. Introduction to Cognitive Science

Winter. 4(4-0) PHL 447 or PSY 300 or LIN 401 or CPS 441 or approval of department. Interdepartmental with Linguistics and the Department of Philosophy. Administered by the Department of Philosophy.

The cognitive processing of information by animals, humans, and computers. Relevant issues in philosophy, psychology, linguistics, neurophysiology, and artificial intelligence.

#### 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. 3(3-0) 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 or approval of department. 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. 3(3-0) 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. Students are limited to a combined total of 12 credits in PSY 490 and PSY 491. Students who completed PSY 246, PSY 247, PSY 248 or PSY 371, PSY 372, PSY 373 are limited to a combined total of 6 credits in PSY 490 and PSY 491. Juniors, 12 credits in psychology; 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. Students are limited to a combined total of 12 credits in PSY 490 and PSY 491. Students who completed PSY 246, PSY 247, PSY 248 or PSY 371, PSY 372, PSY 373 are limited to a combined total of 6 credits in PSY 490 and PSY 491. 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. 3(3-0)

Contemporary principles and theories of learning, behavior, and animal cognition. Includes application of reinforcement theory, and animal models of psychopathology. Phenomena include addiction, depression, and stress.

**801. Perception**

Fall of even-numbered years. 3(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**

Winter. 4(2-4) ZOL 827 and approval of instructor. Interdepartmental with 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**

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

Continuation of PSY 804A.

**805. History and Systems**

Winter of odd-numbered years. 4(4-0) Psychology majors or approval of department.

Major scientific, cultural, philosophical, and personal influences in the development of psychology. Analysis of persisting issues.

**810. Cognitive Processes**

Winter. 3(3-0) Majors or approval of department.

Experimental findings and theories on human cognition including the topics of attention, pattern recognition, skill acquisition, memory, language processing, problem solving, and decision making.

**811. Advanced Physiological Psychology**

Spring. 4(4-0) Majors or approval of department.

Psychology as a biological science. Consideration of physiological events underlying organism-environment interaction.

**814. Psycholinguistics**

Spring of even-numbered years. 3(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.

**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.

**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**

Spring. 4(3-2) Majors or approval of department.

Research strategies and the clinical method: types of evidence, similarities and differences. Questionnaires 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.

**840. Advanced Social Psychology: Cognitive Approaches**

Winter. 4(4-0) 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.

## Descriptions — Psychology

### of Courses

- 844. Developmental Psychology of Women**  
*Spring. 3(3-0) Graduate student in Psychology or related areas.*  
Women's development, birth through maturity, in light of women's issues and contemporary theory and research. Effects of sex-typing and women's unique experiences.
- 845. Developmental Psychology: Infancy**  
*Fall of odd-numbered years. 4(4-0) Majors or approval of department.*  
Human infancy: conception to three years. Developmental study of: prenatal life, personality, learning, perception, sensory stimulation and deprivation, neurophysiology, psychophysics, language and cognition.
- 846. Developmental Psychology: Childhood**  
*Winter of even-numbered years. 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 of even-numbered years. 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.
- 848. Developmental Psychology: Adulthood and Aging**  
*Spring of odd-numbered years. 3(3-0) Majors or approval of department.*  
Normal development from early to late adulthood. Includes physical and physiological changes; intellectual functioning; personal development; normative and non-normative transitions; social relations including love, family, friendship; work, vocational development, retirement.
- 849. Developmental Psychology: Theory**  
*Winter of odd-numbered years. 3(3-0) Majors or approval of department.*  
Philosophical origins of contemporary theory in developmental psychology: cognitive, information processing, maturation, dialectical, psychoanalytic, behavioral, organismic, general systems, psychobiology, and stage-related theories.
- 850A. Developmental Psychopathology I**  
*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.
- 851. Neuropsychology**  
*Fall. 4(4-0) Graduate students in psychology or approval of instructor.*  
Basic research and theory in the neuropsychology of cognition, language, memory, emotions, manual performance, visual-spatial functions, lateral specialization, and the relationship between brain lesion and recovery of function.
- 852A. Neuropsychological Assessment**  
*Spring of odd-numbered years. 2(2-0) PSY 811, ANT 563, PSY 851; or approval of department.*  
Theory, research, and practice related to the behavioral expression of brain dysfunction in adults. Overview of selected neuropsychological instruments in current use and their clinical applications.
- 852B. Neuropsychological Assessment Laboratory**  
*Spring of odd-numbered years. 3(0-6) PSY 852A concurrently, clinical psychology graduate student; or approval of department.*  
Intensive practice in the administration of neuropsychological assessment instruments with emphasis on the Halstead-Reitan Test Battery.
- 860. Advanced Industrial Psychology**  
*Fall. 4(4-0) 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(4-0) Fifteen graduate credits.*  
Survey of current theories of individual behavior in complex organizations. Examples from research in industry, government, and other complex organizations.
- 866. Personnel Selection and Evaluation**  
*Fall of even-numbered years. 3(3-0) Fifteen graduate credits.*  
Critical treatment of research methods and instruments in personnel selection and evaluation as applied to governmental, business and industrial situations.
- 870A. Introduction to Ecological Psychology**  
*Fall. 3(3-0) PSY 815 concurrently or approval of department.*  
Experimental ecological psychology; methodology. Researchable problems, funding, dynamics of research teams, identifying ecological variables.
- 870B. Foundations of Ecological Psychology: Measurement Approaches**  
*Winter. 3(3-0) PSY 870A; PSY 816 concurrently or approval of department.*  
Application of ecological psychology. Measurement. Hypotheses and research plans. Initiating, maintaining, terminating naturalistic psychological research. Evaluating and publishing results. Review of selected experiments.
- 870C. Foundations of Ecological Psychology: Dissemination Methods**  
*Spring. 3(3-0) PSY 870B or approval of department.*  
Use of psychological research to produce social change. Creation of acceptance of social change. Examination of effectiveness of experimental interventions into social systems.
- 873A. Methods of Ecological Psychology: Historical Perspectives**  
*Fall. 3(3-0) PSY 870A concurrently or approval of department.*  
Ecological-community psychology literature identifying social problems, methods for their solution, and the philosophical, political, and role definition issues confronting the ecological-community psychologist.
- 873B. Methods of Ecological Psychology: Field Research Design I**  
*Winter. 3(3-0) PSY 873A; PSY 816 concurrently or approval of department.*  
Planning and design of innovative field research including research planning, experimental design, program evaluation, measurement, data gathering, validity and reliability, and the dissemination of research results.
- 873C. Methods of Ecological Psychology: Field Research Design II**  
*Spring 3(3-0) PSY 873B; PSY 817 concurrently or approval of department.*  
Discussion of unobtrusive, observational, and interview measures; introduction to policy analysis, preparation of major research proposal and in class research project; implementation of field research.
- 876A. Community Interventions: Entry and Assessment**  
*Fall. 2(2-6) PSY 873A concurrently.*  
Entry issues in actual community interventions; group dynamics; community relationships; methods of conducting community research.
- 876B. Community Interventions: Social Change Tactics**  
*Winter. 2(2-6) PSY 876A; PSY 873B concurrently.*  
Conduct community experiments, analysis of public policies, and dissemination of scientific information to community setting.
- 877. Applications in Field Research**  
*Spring. 2(2-0) PSY 876B; PSY 873C concurrently or approval of department.*  
Use of computer programs for field research, data coding, and analysis of field data in ecological psychology.
- 878. Proseminar in Ecological Psychology**  
*Fall. 4(4-0) PSY 870C; PSY 873C or approval of department.*  
Major theoretical perspectives within ecological psychology. Alternative conceptualizations of social issues, methods of social change, measurement of social problems, and analytical strategies.
- 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.

**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**  
Winter of odd-numbered years. 3(2-2) ANT 839 or approval of department. Interdepartmental with the departments of Anatomy, Physiology, and Zoology. Administered by the Department of Anatomy.  
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**  
Spring of odd-numbered years. 3(2-2) ANT 885. Interdepartmental with the departments of Anatomy, Physiology, and Zoology. Administered by the Department of Anatomy.  
Continuation of ANT 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.

**890. Special Problems**  
Fall, Winter, Spring, Summer. 1 to 12 credits. May reenroll for a maximum of 36 credits. Approval of department.

**899. Master's Thesis Research**  
Fall, Winter, Spring, Summer. Variable credit. Approval of department.

**908. Seminar in Organization Theory**  
Winter. 4(4-0) MCT 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 I**  
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(3-0) 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 Evaluation**  
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**  
Spring of odd-numbered years. 4(4-0) PSY 860 or approval of instructor.  
Theoretical approaches to the enhancement of work and life satisfaction. Comparison of approaches to worker motivation. Role of satisfaction in motivation models.

**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, Summer. 1 to 6 credits. May reenroll for a maximum of 18 credits. PSY 932.  
Clinical experience in assuming responsibility for total case integration and interpretation of findings to parents and agencies.

**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.

## Descriptions — Psychology

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### Courses

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. 1 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 (MTC)**  
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**  
Spring. 3(2-2) PHY 237, PHY 257; MTH 109; Junior or Senior Medical Technology majors.

Terminology and fundamentals 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.

525. **Fundamentals of X-ray Interpretation**  
Winter, Spring. 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.

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. FMP 602.

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

## 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 Hebrew. Continuation of HEB 101.

103. **Elementary Hebrew**  
Spring. 4(4-1) HEB 102. Interdepartmental with and administered by Hebrew. 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 worldviews, including views of God and other supernatural beings, human nature and destiny, paths for spiritual achievement, death and after-life.

152. **Eastern Religions (A)**  
Fall, Winter, Spring. 3(3-0)  
Historical-comparative approach to Hindu, Buddhist, Confucian, Taoist, and Shinto beliefs, practices, and worldviews, including views of: nature of ultimate reality, human nature and destiny, death and beyond.

201. **Intermediate Hebrew**  
Fall of odd-numbered years. 4(4-1) HEB 103. Interdepartmental with and administered by Hebrew.

Systematic review of grammar, oral practice and reading of modern pointed and unpointed texts. Root-finding skills and dictionary exercises.

202. **Intermediate Hebrew**  
Winter of even-numbered years. 4(4-1) HEB 201. Interdepartmental with and administered by Hebrew. Continuation of HEB 201.

203. **Intermediate Hebrew**  
Spring of even-numbered years. 4(4-1) HEB 202. Interdepartmental with and administered by Hebrew. Continuation of HEB 202. Primarily unpointed Hebrew texts and newspapers.

210. **Denominations in America**  
Winter. 3(3-0)  
Religious denominations in America, their origin, history, beliefs, sociology, influence, strengths, tensions; distinctions among sect, cult, and denomination; analysis of trends pointing to alternate futures; ecumenical movement.

220. **Old Testament (A)**  
Fall. 3(3-0)  
A study of the history, literature and religion of Israel based on a critical examination of the Biblical texts.

221. **Old Testament (A)**  
Winter. 3(3-0)  
A continuation of REL 220.

222. **New Testament (A)**  
Fall, Winter, Spring. 3(3-0)  
A study and analysis of the texts of the New Testament in light of their historical setting.

295. **Individual Readings**  
Fall, Winter, Spring. 1 to 5 credits. May reenroll for a maximum of 10 credits if a different topic is taken. Approval of department.  
Supervised independent study of a particular topic in religious studies not covered in the regular courses.

299. **Special Topics**  
Fall, Winter, Spring. 3(3-0) May reenroll for a maximum of 6 credits.  
Selected topics not available on regular basis as part of standard curriculum. Offered as faculty interest and availability permit.

300. **Life of Christ**  
Fall. 3(3-0)  
The life of Christ as recorded in the Gospels in light of Christian tradition and ancient and modern scholarship.

302. **Writings of St. Paul**  
Winter. 3(3-0)  
Analysis of the major Pauline letters together with the Book of Acts in the light of their significance for the early Church and for contemporary Christianity.

305. **Christian Ethics and Society**  
Spring. 4(4-0)  
Biblical and theological bases for social action. Areas of contemporary discussion including the relation of love to justice, individual ethic to social ethic, situation to principle, and the social order.

310. **Christianity**  
Winter. 3(3-0)  
Origins and historical development of Christianity, major doctrines and liturgical practices, ethical stance, institutional forms (Eastern Orthodox, Roman Catholic, Protestant), social and cultural contributions, contemporary status and role.