

Psychology

MAJOR, MINOR

PROFESSORS: Bonnie B. Bowers (chair), George W. Ledger

ASSOCIATE PROFESSORS: Richard L. Michalski (on leave short & spring terms), Tiffany A. Pempek

The core program in psychology emphasizes the learning of representative knowledge in content areas that constitute modern psychology, with particular concentration on the research methods and the scientific roots of psychology. Areas of focus chosen by the student emphasize the integration of psychology with other disciplines (i.e., neuroscience, biology, ethology, statistics, and education) and provide course work relevant to her interest as well as to her career and/or graduate study goals.

REQUIREMENTS FOR A MAJOR IN PSYCHOLOGY (B.A.):

12 courses (45-49 credits)

CORE COURSES:

- PSY 141: Introduction to Psychological Science (4)
- PSY 205: Research Design (4) and PSY 205L: Laboratory for Research Design (1)
- PSY 208: Research Statistics (4)
- PSY 425: History and Systems of Psychology (4)
- Two additional Psychology courses at the 200 or 300 level (8)

AREA COURSES: (20 credits)

Students are required to take one course from each of the five areas listed below:

- Abnormal & Clinical:
 - PSY 342: Principles of Abnormal Behavior (4)
 - PSY 351: Behavior Disorders of Childhood (4)
- Biological & Comparative:
 - PSY 215: Motivation and Emotion (4)
 - PSY 272: Evolutionary Psychology (4)
 - BIOL/PSY 317: Biological Psychology (4)
 - BIOL/PSY 323, 323L: Animal Behavior (4, 2)
- Developmental:
 - PSY 144: Child Psychology (4)
 - PSY 237: Children and Media (4)
 - PSY 337: Children's Thinking (4)
 - PSY 351: Behavior Disorders of Childhood (4)
- Learning, Memory, Cognition:
 - PSY 318: Human Memory (4)
 - PSY 319: Cognition (4)
 - PSY 337: Children's Thinking (4)
 - PSY 346: Intelligence (4)
- Social & Personality:
 - PSY 204: Social Psychology (4)
 - PSY 272: Evolutionary Psychology (4)
 - PSY 273: Psychology of Human Sexuality (4)
 - PSY 363: Personality Psychology (4)

PSY 141 or its equivalent is a prerequisite for all courses in the department except as noted. A score of 4 or 5 on the Advanced Placement Psychology exam will substitute for credit for PSY 141.

REQUIREMENTS FOR A MAJOR IN PSYCHOLOGY (B.S.):

18-19 courses (69-73 credits)

REQUIRED COURSES IN PSYCHOLOGY:

CORE COURSES:

- PSY 141: Introduction to Psychological Science (4)
- PSY 205: Research Design (4) **and** PSY 205L: Laboratory for Research Design (1)
- PSY 208: Research Statistics (4)

- PSY 210: Research Practicum (4)
- PSY 425: History and Systems of Psychology (4)
- PSY 290/390: Independent Study (4) or PSY 490: Senior Honors Thesis (8)
- Two additional Psychology courses at the 200 or 300 level (8)

AREA COURSES: (20 credits)

Students are required to take one course from each of the five areas listed above.

REQUIRED ALLIED COURSES:

- 16 additional credits in biology, chemistry, mathematics, statistics, and/or physics (at least one course with a lab, 200 level or above) chosen in consultation with advisor

REQUIREMENTS FOR A MINOR IN PSYCHOLOGY:

5 courses (20 credits)

- PSY 141: Introduction to Psychological Science (4)
- Four additional psychology courses at the 200 level or above (16)

COURSES IN PSYCHOLOGY:

PSY 141: INTRODUCTION TO PSYCHOLOGICAL SCIENCE (4)

Pempek

Survey of major topic areas in modern psychology and terminology of the discipline, giving students a more complete understanding of themselves and others. Discussion of topics such as the debate over nature and nurture, human development, physiological psychology, social psychology, and several other major areas within psychology, and discussions of the implications of findings within these areas on cultural products. We will explore these topics through lectures, lab exercises, and assignments. Open to first-year students. Offered both terms. (SCI)

PSY 144: CHILD PSYCHOLOGY (4)

Pempek

Focuses on the definition and understanding of processes basic to the development of complex human behaviors. Particular attention to the powerful developmental factors during the first 14 years of life and their relevance for later behavior. Open to first-year students. No prerequisite. Offered Term 1.

PSY 197F: FIRST-YEAR SEMINAR: THE CREATIVE BRAIN (4)

Bowers

This course will cover the relationship between creativity and the brain. We will explore different definitions of creativity and create our own. After covering basic brain structure and function, we will learn what happens in the brain when we listen to music or watch dance and what parts of the brain are involved in producing music, art, or dance. Finally, we will explore how the brain is changed by musical or artistic training. We will explore these topics through readings of case studies and research literature, group and class discussions, and hands-on activities. Open to first-year students only. Placement to be determined during the summer. Offered Term 1. (o, r)

PSY 204: SOCIAL PSYCHOLOGY (4)

Michalski

This course addresses the foundations of modern social psychology; social interactions and social processes; nature and characteristics of social groupings; types of social groupings; social change and stability; and development and change of attitudes. The course will also have practical application as found in current research on group influences and reactions in experimental and natural settings. Prerequisite: PSY 141. Not offered in 2017-18.

PSY 205: RESEARCH DESIGN (4)

Pempek

Basic research provides the central subject matter for the sciences. Students are introduced to the fundamentals of research methods used in psychology. Topics covered include experimental design, techniques of experimental control, data analysis, and report preparation. Students design and present a comprehensive research proposal. Prerequisite: PSY 141. Corequisite: PSY 205L. Offered Term 1. (r)

PSY 205L: LABORATORY FOR RESEARCH DESIGN (1)

Pempek

This lab offers practical applications of concepts covered in the lecture course. Topics covered include locating and critiquing primary research articles, basics of scientific writing with an emphasis on AP A style, data collection, analysis, and interpretation, reliability and validity analysis, and professional presentation fundamentals. The lab must be taken in the same term as the lecture course. Corequisite: PSY 205. Offered Term 1.

PSY 208: RESEARCH STATISTICS (4)**Bowers**

Students gain hands-on experience in selecting, calculating, and interpreting results of the statistical tests most commonly used in behavioral research. The course covers basic statistical concepts, concentrating on using statistics to test research hypotheses. Emphasis is placed on learning to choose an appropriate statistical test for a given research design. Prerequisite: q. Offered both terms. (Q)

PSY 210: RESEARCH PRACTICUM (4)**Bowers**

This seminar-based course focuses on the development of skills necessary to conduct valid, reliable research in the behavioral sciences. In addition to text-based materials in research techniques, the course provides each student the opportunity to design, conduct, and present the results of a full-scale research project on the subject of her choice. Prerequisites: PSY 205 and PSY 208. Offered Term 2. (SCI)

PSY 215: MOTIVATION AND EMOTION (4)**Bowers**

This course covers the physiological, cognitive, and social aspects of motivation and emotion through lectures, discussions, and interactive exercises. Some of the topics to be covered include types of needs, intrinsic and extrinsic motivation, goal setting, theories of emotion/ individual emotions, and growth motivation. Practical applications will be emphasized throughout the course. Prerequisite: PSY 141. Not offered in 2017-18.

PSY 237: CHILDREN AND MEDIA (4)**Pempek**

This course addresses theoretical and developmental issues related to children's media use. Topics covered include: the history of children's media; how children use, understand, and react to media; the cognitive, social, and health effects of media on children; and the use of research to inform media production and policy. Open to first-year students. No prerequisite. Offered Term 2.

PSY 272: EVOLUTIONARY PSYCHOLOGY (4)**Michalski**

This course examines evolutionary psychology including a brief historical review of key themes in psychology and evolutionary biology. Concepts and principles of human evolution will be developed in the context of classic and contemporary issues in social psychology, cognitive psychology, developmental psychology, and personality psychology. Topics covered include problems of survival, long-term mating, sexuality, parenting, kinship, cooperation, aggression and warfare, conflict between the sexes, status, prestige, and social dominance. Prerequisite: PSY 141. Not offered in 2017-18.

PSY 273: PSYCHOLOGY OF HUMAN SEXUALITY (4)**Michalski**

This course is an overview of the scientific study of human sexual thoughts, feelings, and behavior. This course will place emphasis on future directions for research on human sexuality. Topics include developmental and social perspectives of sexual thought and behavior, sexual motivation and arousal, and more specific topics include sexual interests across the menstrual cycle, mate preferences, and infidelity. Prerequisite: PSY 141. Not offered in 2017-18. (w, x, o)

PSY 281: PROFESSIONAL DEVELOPMENT IN PSYCHOLOGY (2)**Pempek**

This course will introduce students to career options available with a bachelor's degree in psychology. Course activities and guest speakers will help prepare students to apply to graduate programs and employment opportunities. Examples of topics covered include careers in psychology, internship opportunities, the graduate school application process, resume writing, and tips for interviewing. Prerequisite: PSY 141. Offered Term 1.

PSY 290: INDEPENDENT STUDY IN PSYCHOLOGY (2 or 4)**Department**

An opportunity to explore lower-level topics within psychology of special interest to a student. Students may suggest programs of reading, laboratory, research, or clinical activity to individual faculty for their approval and guidance. Offered any term.

PSY 317: BIOLOGICAL PSYCHOLOGY (4)**Bowers**

Relationships between behavior and underlying physiological mechanisms are examined. Basic anatomy of the nervous system, characteristics of sensory systems, neuro- and endocrine-interactions, and neural developmental processes are discussed. This course has an integrated laboratory component. Also listed as BIOL 317. Prerequisite: PSY 141. Offered Term 1.

PSY 318: HUMAN MEMORY (4)**Ledger**

An in-depth survey of the field of cognitive psychology. Information processing, perception, memory development, and models of human memory. Topics also covered: language development, reading, language comprehension,

semantics, decision making, judgment, reasoning, problem solving, and current computer applications of cognitive advances. Prerequisites: PSY 141. Offered Term 2. (SCI)

PSY 319: COGNITION (4)

Ledger

This course will cover the major approaches to the scientific study of human thinking from the information-processing and connectionist perspectives. Topics include: perception, attention, memory, knowledge, language, reasoning, creativity, intelligence, and problem solving. Prerequisite: PSY 141. Offered Term 1.

PSY 323: ANIMAL BEHAVIOR (4)

Godard

Also listed and described as BIOL 323. Offered Term 2.

PSY 323L: LABORATORY FOR ANIMAL BEHAVIOR (2)

Godard

Also listed and described as BIOL 323L. Offered Term 2.

PSY 337: CHILDREN'S THINKING (4)

Pempek

This course examines cognitive development from infancy through childhood. Major theories addressing the development of children's knowledge and reasoning skills will be discussed and evaluated. Examples of topics to be covered include the development of memory, perception, language, and symbolic reasoning as well as children's understanding of mind, space, number, and biology. Prerequisite: PSY 141. Not offered in 2017-18.

PSY 342: PRINCIPLES OF ABNORMAL BEHAVIOR (4)

Ledger

A study of the psychosocial, sociocultural, and biological aspects of behavior disorders. Major topics include anxiety and psychosomatic disorders, schizophrenia, and the affective disorders. Prerequisite: PSY 141. Offered Term 2.

PSY 346: INTELLIGENCE (4)

Ledger

This course covers the major theoretical perspectives on the development of intelligence in humans. Topics will include: the evolution of intelligence, animal intelligence, major intelligence theories, intelligence research, testing, and artificial intelligence. There will be hands-on laboratories on techniques in intelligence research and the major intelligence tests will be covered. Prerequisite: PSY 141. Offered Term 2. (SCI)

PSY 351: BEHAVIOR DISORDERS OF CHILDHOOD (4)

Ledger

An examination of the theories, characteristics, etiology, and treatment of the major categories of behavior disorders that affect children and adolescents. Topics include autism, hyperactivity, school phobia, mental retardation, anxiety, aggression, substance abuse, schizophrenia, sexual behavior problems, and antisocial behavior. Prerequisite: PSY 141. Offered Term 1. (DIV)

PSY 363: PERSONALITY PSYCHOLOGY (4)

Michalski

Personality is a very broad field of study. It refers to the set of enduring psychological traits within individuals that influence their interactions with, and their adaptations to, different environments. This course introduces students to the history of personality psychology and the research and applications of personality science. This course also introduces students to biological, cognitive, intrapsychic, and social factors that influence personality. Prerequisite: PSY 141. Offered Term 1.

PSY 390: INDEPENDENT STUDY IN PSYCHOLOGY (2 or 4)

Department

An opportunity to explore advanced topics within psychology of special interest to a student. Students may suggest programs of reading, laboratory, research, or clinical activity to individual faculty for their approval and guidance. Offered any term.

PSY 399: INTERNSHIP IN PSYCHOLOGY (4)

Department

Students participate in applied psychological programs at institutions or with psychologists in private practice in the Roanoke area. Emphasis is on direct, intensive experience with the application of psychological principles in practical circumstances. Application with faculty required prior to registration. Offered both terms.

PSY 425: HISTORY AND SYSTEMS OF PSYCHOLOGY (4)

Ledger

A comprehensive overview of the history of psychology, including early philosophical roots, the "schools" of psychology, and major branches of modern psychology with emphasis on important studies in each area. Prerequisite: senior psychology major or permission from the instructor. Offered Term 1. (MOD)

PSY 490: SENIOR HONORS THESIS (4, 4)**Department**

An extensive research project to be carried out over both regular terms and Short Term. A research proposal and literature review is due at the end of Term 1. Students will complete an APA-style thesis and present their projects at the Division III Science Seminar in Spring Term. Open to qualified senior psychology majors. Application with faculty is required prior to registration.