Psychology is a life science that focuses upon the physical and mental processes that underlie individual behavior. This definition provides a focus for the objectives of the psychology program at Carroll University. The program numbers among its liberal learning objectives those of enriching students’ understanding of scientific methods and giving students a thorough knowledge of the subject matter central to their better comprehending people.

In addition to its emphasis upon liberal learning, the program strives to offer a major that provides an excellent foundation for those who wish to pursue graduate studies. The program takes great pride in its strong track record of launching psychology majors into academic and professional careers. Academic careers include teaching and research in biological, cognitive, or social psychology; professional careers include serving people in clinical, counseling, or industrial/organizational settings.

**Program Goals for Psychology**

1. Majors will understand psychology as a scientific discipline with regard to its content and research methods.
2. Majors will demonstrate intellectual skills in thinking, communication, information gathering and synthesis, as well as in quantitative and scientific methodology.
3. Majors will demonstrate personal development in ethics, values, and career plans.
4. Majors will be qualified to enroll in psychology-related graduate programs or find other psychology-related full-time employment.

**Learning Outcomes**

Upon successful completion of the Psychology major, students will be able to:

1. Define and describe psychology-related terminology and concepts
2. Evaluate and generate psychological research
3. Demonstrate multiple effective communication skills
4. Work effectively in a team environment
Students may take up to 12 psychology courses plus Psychology 480 (Internship); however, only 10 4-credit, graded courses (i.e., 40 credits) are required for the major. In addition to Psychology 101, 205 and 307, and the senior capstone course 403, students complete additional requirements by selecting any six remaining psychology courses (excluding 398 and 480). Suggested groupings:

Clinical/Counseling (201; 206; 240; 303; 306 or 321; 314 or 316)
Industrial/Organizational (211, 228, 303, 306, 316, and 321)
Research (240, 303, 314, 316, 401, and 492)
Pre-PT (201, 221 or 206, 260, 303 or 321, plus two electives excluding 240 and 314) (PTH 405 and 407 do not count for psychology major or minor.)

Fees
Specific courses that require use of equipment and disposable supplies including certain types of psychological tests are assigned a course fee.

Psychology Major
Bachelor of Science
Psychology 101, Introductory Psychology
Psychology 205, Statistics and Experimental Design
Psychology 307, Research Methods in Experimental Psychology
Psychology 403, Historical and Modern Viewpoints of Psychology plus Six elective courses in Psychology or completion of an area grouping. (Cannot include both 206 and 221.)
Forty credits are required as a minimum.

Only courses listed as psychology (PSY) courses may be used as core courses for a psychology major or count toward a psychology minor.

Required Support Courses (For primary majors only)
CSC 107 or higher
Mathematics 112 or higher than Mathematics 130 plus any additional 8 credits from the following:
Communication 101
English 305
Business 250 or Sociology 110
Chemistry 101 and 102 or Chemistry 109 or 110

Psychology Minor
Psychology 101, Introductory Psychology
A minimum of four additional Psychology (PSY) courses, excluding PSY 398 and PSY 480. (Cannot include both PSY 206 and PSY 221.) At least one elective must be 300-level or higher. Twenty credits are required as a minimum.

PSY 101. Introductory Psychology S1 4 credits
An introduction to the science of behavior and mental processes. Emphasis is placed upon methods of inquiry utilized in the social sciences. These methods will be used to investigate psychological questions regarding topics such as perception and con-
sciousness, learning, memory and thinking, biological and developmental processes, motivation and emotion, personality, social determinants of behavior, and mental health. *(Fa, Sp, Su)*

**PSY 201. Abnormal Psychology**
4 credits
A study of major and minor psychological disorders. Consideration of classification issues and theoretical perspectives precedes an examination of research on genetic, biobehavioral and psychosocial determinants of stress reactions and psychological disorders. Consideration is also given to healthy adjustment and coping strategies as well as prevention and therapy options. *(Fa, Su)* Prerequisite: PSY 101.

**PSY 205. Statistics and Experimental Design**
4 credits
Required for the psychology major and highly recommended for many others, this course teaches the data analysis procedures most widely used by researchers in the social and behavioral sciences. Instructional emphasis will be on learning which statistic to use, how to perform the data analyses and how best to communicate one's results. Students will gain extensive experience collecting, analyzing, thinking about and using statistical data. Computations will be done both by calculator and by computer. Four hours of lecture-discussion and one two-hour laboratory. *(Lab fee required)* *(Fa, Sp, Su)* Prerequisite: PSY 101 and at least sophomore standing or special permission from the instructor.

**PSY 206. Developmental Psychology**
4 credits
A study of the theories, research, and issues related to physical, intellectual, social and emotional development. Slight emphasis on children, including observational strategies for behavioral assessment of infants and children, are included. Credit cannot be received for both 206 and 221. *(Sp)* Prerequisite: PSY 101.

**PSY 210. The Science of Sleep**
2 credits
This course will introduce students to the subject of sleep. There is a large body of information about circadian rhythms and the biological clock, what constitutes normal sleep, the myriad of sleep disorders, and the costs to society of sleep deprived individuals. Special emphasis will be placed on the lack of sleep some professionals routinely accrue, including medical doctors, airline pilots, truck drivers, as well as shift workers. Basic polysomnography (brain waves, breathing, heart rate and movement recorded during a sleep study) will also be covered. A variety of methods including lecture, movies, group work and discussion will be employed. *(Wn)*

**PSY 211. Industrial and Organizational Psychology**
4 credits
The psychological study of factors related to people at work. Employee selection methods such as testing and interviewing, performance evaluations, job descriptions, statistical validation and decision techniques, motivation, leadership, satisfaction, job redesign and organizational development are examined. *(Fa, Su odd)* Prerequisite: PSY 101.
PSY 221. Life-Span Psychology  
A comprehensive course with an applied emphasis which examines individual development throughout life. Topics such as genetic inheritance, intellectual change and social adjustment are viewed as processes that extend from the neonatal period through very old age. Credit cannot be received for both 206 and 221. (Fa, Sp, Su) Prerequisite: PSY 101.

PSY 228. Consumer Behavior  
An applied psychology course focusing upon the behavior of the individual consumer. Concepts derived from perception, motivation, personality, learning and cognition are developed in the analysis of consumer decision-making. (Sp, Su even) Prerequisite: PSY 101.

PSY 240. Biopsychology  
This course examines the biological substrates of the mind and behavior. Foundational to the course is an understanding of the electrochemical processing that occurs in and between neurons, with relevant applications to drug use, emotions, learning, memory, sleep, consciousness, sensory systems, evolution, and psychiatric disorders. (Sp) Prerequisite: PSY 101. Credit cannot be received for PSY 240 and PTH 405.

PSY 260. Health Psychology  
Based on the research of clinical, experimental social and health psychologists, this course examines how psychological, social, and biological factors affect health and illness. Topics include coping with stress and pain, psychoneuroimmunology, and living with chronic illness, such as diabetes, cardiovascular disease, or cancer. Emphasis is also placed on effective patient-clinician communication and on the modification of health-related behaviors. (Sp, Su) Prerequisite: PSY 101.

PSY 303. Experimental Social Psychology  
This course reviews and critically examines the research findings of experimental social psychologists. Among the topics explored are attitude change, prejudice, conformity, altruism, aggression and group dynamics. Instructional emphasis will be on developing ideas for further needed social psychological research. (Fa) Prerequisite: PSY 101 and 205.

PSY 306. Psychological Testing and Assessment  
This course gives students a strong foundation in the technical and methodological principles of test construction and in the social and ethical implications of psychological testing. Students will learn criteria for selecting and critically evaluating tests. In addition, students will actually take and study in depth a number of widely used tests of personality, occupational interests, intelligence and values. (Course fee required) (Sp) Prerequisite: PSY 101 and 205.

PSY 307. Research Methods in Experimental Psychology  
A research methods course in experimental science. Knowledge gained from PSY 205 is combined with laboratory exercises in physical control and measurement of vari-
ables. A class component covers experimental and quasi-experimental research methods. In addition, students conduct an individual experimental project and learn how to write research reports. Four hours of lecture/discussion and one three-hour laboratory. (Lab fee required) (Fa, Sp, Su) Prerequisite: PSY 101 and 205.

PSY 314. Learning and Animal Behavior 4 credits
A systematic survey of basic principles of learning and behavior in animals including humans. In the context of evolutionary psychology, attention is directed toward Pavlovian and instrumental conditioning, behavioral approaches to learning, species-specific concerns, and motivation. Basic research is related to applied efforts in behavior modification and educational technologies. (Fa, Sp) Prerequisite: PSY 101. Credit cannot be received for both 314 and PTH 407.

PSY 316. Thinking, Problem Solving, and Cognition 4 credits
A study of human intelligence. This course focuses upon cognitive processes and structures involved in perception, memory, critical thinking, problem-solving and creativity. Applications to effective study and reading comprehension are also examined. (Sp) Prerequisite: PSY 101.

PSY 321. Personality: Theory and Assessment 4 credits
The personality theories of Freud, Jung, Erikson, Rogers, Cattell and others are examined using both textbook treatments and original works of the psychologists. Biological contributions to personality are also discussed. Various psychological assessments are used to help students examine aspects of their own personalities. (Course fee required) (Fa) Prerequisite: PSY 101.

PSY 391. Special Studies in Psychology 2 credits
One-time courses, offered as announced. Topics vary. (Fa, Sp, Su) Prerequisite: PSY 101.

PSY 398. Independent Study in Psychology 1-4 credits
(Fa, Sp, Su) Prerequisites: PSY 101, Junior standing, approval of divisional dean and consent of instructor.

PSY 401. Behavioral Neuroscience 4 credits
Building on the introduction to the brain provided in PSY 240, this course examines deeper principles of brain function. Understanding the brain at a deep level requires studying and manipulating models grounded in principles of brain function. In this course, students will systematically explore neural network models of learning, attention, memory, language, and higher-level cognition in an integrated lecture-lab format. (Lab fee required) (Fa) Prerequisite: PSY 101 and PSY 240, or consent of instructor.

PSY 403. Capstone: Historical and Modern Viewpoints of Psychology 4 credits
This capstone course prepares the psychology senior for a career in or related to the major. It also integrates traditional subject matter of perception, learning, social and developmental processes, as well as intelligence, motivation and personality. Historical
roots, contemporary issues, as well as career opportunities, form the bases of class activities. Each student also completes career and major project portfolios. (Course fee required) (Fa)

PSY 414. Research Methods in Behavior Analysis 2 credits
This laboratory course will introduce students to behavior analytic research methods. Specifically, students will learn behavior recording techniques, methods of establishing interobserver agreement, and experimental methods for studying behavior change at the individual-level. By the end of the semester, students will design, carry-out, and write-up original research using nonhuman-animal subjects (Sp) Prerequisites: PSY 101 and 314.

PSY 480. Internship in Psychology 4 credits
Provides majors contemplating a career in psychology or in related areas with supervised field experience. S/U graded. (Fa, Sp, Su) Prerequisite: PSY 101, Junior standing and consent of instructor.

PSY 492. Research Seminar 4 credits
This course is required for those psychology majors who are in the university-wide honors program and is recommended for all psychology majors. Students conduct systematic empirical research in the context of a seminar directed and coordinated by a faculty member. Seminar discussion is focused upon a current topic and is largely confined to asking researchable questions, exploring the feasibility of student-generated research proposals and evaluating student research reports. (Fa, Sp) (Lab fee required) Prerequisite: PSY 101, 205 and 307.