

ENGL 403 Analytical and Persuasive Writing (4 credits)
 JOUR 311 Persuasion in Writing (4 credits)
 MATH 101 Finite Mathematics (4 credits) *or* MATH 113 Calculus I (4 credits)
 PHIL 220 Logic (4 credits)

Psychology (PSYC)

College of Arts and Sciences
 Department of Psychology
 Johnson (chair), Amel, Bock, Buri, Chalkley, Giebenhain, Prichard, Robinson-Riegler, Scott, Tauer

The courses and programs offered by the Department of Psychology are meant to be a part of a liberal arts education, teaching the basic principles and theory of psychology, the scientific study of human behavior, mental processes, and emotions. The psychology programs are designed to prepare students with the analytical and technical skills necessary for graduate study in psychology and for careers in human services and other occupations for which a psychology background is valuable. Courses are offered that introduce psychology to non-majors, enabling students to make practical applications of psychology to their own lives.

Students who graduate with a major in psychology will be able to produce a research paper written in accordance with American Psychological Association (APA) guidelines. They will be trained in those research and statistical skills frequently employed in the field of psychology. They will be able to complete an independent research project, and write a synthesis of the psychological literature in an area of psychological interest.

Students majoring in psychology must successfully complete a minimum of twenty-four credits in psychology at St. Thomas.

The department also offers General Psychology (PSYC 111) for students to fulfill the Social Analysis component of the core curriculum.

Psychology Honor Society

Psi Chi, the National Honor Society in psychology, was founded in 1929 for the purpose of encouraging, stimulating, and maintaining excellence in scholarship and advancing the science of psychology. The St. Thomas chapter was established in 1997. Students who have a grade point average of at least 3.00 in psychology, rank in the highest 35 percent of their class, and who have completed at least three semesters of college coursework, including nine hours in psychology, are eligible to apply for membership.

The Department of Psychology also recognizes selected students each year for outstanding research, service, and academic achievements.

Major in Psychology

PSYC 111 General Psychology (4 credits)
 PSYC 212 Research Methods in Psychology (4 credits)
 PSYC 422 History and Systems (4 credits) (to be taken during the senior year)

Plus two laboratory courses from:

PSYC 321 Current Research Issues in Social Psychology (4 credits)
 PSYC 322 Sensation and Perception (4 credits)
 PSYC 323 Learning and Memory (4 credits)
 PSYC 401 Physiological Psychology (4 credits)
 PSYC 415 Research Issues in Cognition (4 credits)

Plus four credits from the following:

PSYC 200 Psychology of Infancy and Childhood (4 credits)
 PSYC 202 Lifespan Development (4 credits) (students may not receive credit for both 202 and 200)
 PSYC 203 Psychology of Adolescence (4 credits)
 PSYC 204 The Psychology of Adulthood and Aging (4 credits)

Plus four credits from the following:

PSYC 121 Social Psychology (4 credits)
 PSYC 301 Psychopathology (4 credits)
 PSYC 302 Personality Theories (4 credits)

Plus four credits from the following:

PSYC 206 The Brain and Human Behavior (4 credits)
 PSYC 315 Cognition (4 credits)
 PSYC 400 Seminar in Cognitive and Language Development (4 credits)

Plus twelve elective credits in psychology

A total of 44 credits in psychology are required for the major. Twenty of the 44 credits in psychology must be 300- or 400-level courses.

Psychology

Allied requirements

All of the following or an adequate substitute approved by the chair:

BIOL 101 General Biology (4 credits) *or* BIOL 105 Human Biology (4 credits) *or* BIOL 106 Women, Medicine and Biology (4 credits)

Plus:

MATH 101 Finite Mathematics (4 credits)

(or MATH 108-109, 111 or 113; students should take highest level for which eligible)

QMCS 220 Statistics I (4 credits)

Students should take the following courses in the following order:

MATH 101 (or MATH 108-109 or 111 or 113)

QMCS 220

PSYC 212

Note: These courses should be taken early in the college career, since they are prerequisites for some required courses in psychology. A student should consult early with her/his department adviser to have her/his plan approved.

Concentration in Behavioral Neuroscience

PSYC 111 General Psychology (4 credits)

PSYC 206 The Brain and Human Behavior (4 credits)

PSYC 207 Alcohol, Other Drugs and Behavior (4 credits)

PSYC 212 Research Methods in Psychology (4 credits)

PSYC 322 Sensation and Perception (4 credits)

PSYC 401 Physiological Psychology (4 credits)

PSYC 422 History and Systems (4 credits) (to be taken during the senior year)

Plus four credits from the following:

PSYC 200 Psychology of Infancy and Childhood (4 credits)

PSYC 202 Lifespan Development (4 credits) (students may not receive credit for both 202 and 200)

PSYC 203 Psychology of Adolescence (4 credits)

PSYC 204 The Psychology of Adulthood and Aging (4 credits)

Plus four credits from the following:

PSYC 121 Social Psychology (4 credits)

PSYC 301 Psychopathology (4 credits)

PSYC 302 Personality Theories (4 credits)

Plus:

Two elective courses in psychology

Allied requirements

All of the following or an adequate substitute approved by the chair:

BIOL 101 General Biology (4 credits) *or* BIOL 105 Human Biology (4 credits) *or* BIOL 106 Women, Medicine and Biology (4 credits)

Plus:

MATH 101 Finite Mathematics (4 credits)

(or MATH 108-109, 111 or 113; students should take highest level for which eligible)

QMCS 220 Statistics I (4 credits)

Students should take the following courses in the following order:

MATH 101 (or MATH 108-109 or 111 or 113)

QMCS 220

PSYC 212

Note: These courses should be taken early in the college career, since they are prerequisites for some required courses in psychology.

Recommended:

Those students planning to pursue graduate study in behavioral neuroscience should consider:

PSYC 493, 494 Research (4 credits each)

Additional courses in biology and chemistry (consult the Behavioral Neuroscience adviser)

Teacher Licensure

Elementary Education with a Specialty in Social Studies (5-8)

Co-major in Social Studies (5-12) and a Co-major in Secondary Education

See Education

Minor in Psychology

PSYC 111 General Psychology (4 credits)

Plus eight credits from the following:

PSYC 121 Social Psychology (4 credits)

PSYC 151 Cross-Cultural Psychology (4 credits)

PSYC 200 Psychology of Infancy and Childhood (4 credits)

PSYC 202 Lifespan Development (4 credits) (students may not receive credit for both 202 and 200)

PSYC 203 Psychology of Adolescence (4 credits)

PSYC 204 The Psychology of Adulthood and Aging (4 credits)

PSYC 205 Psychology of Women (4 credits)

PSYC 206 The Brain and Human Behavior (4 credits)

PSYC 207 Alcohol, Other Drugs and Behavior (4 credits)

PSYC 212 Research Methods in Psychology (4 credits)

PSYC 288 Psychology of Marriage and the Family (4 credits)

Plus eight credits from the following:

PSYC 301 Psychopathology (4 credits)

PSYC 302 Personality Theories (4 credits)

PSYC 308 Motivation and Emotion (4 credits)

PSYC 313 Psychological Testing (4 credits)

PSYC 315 Cognition (4 credits)

PSYC 321 Current Research Issues in Social Psychology (4 credits)

PSYC 322 Sensation and Perception (4 credits)

PSYC 323 Learning and Memory (4 credits)

PSYC 342 Industrial/Organizational Psychology (4 credits)

PSYC 400 Seminar in Cognitive and Language Development (4 credits)

PSYC 401 Physiological Psychology (4 credits)

PSYC 415 Research Issues in Cognition (4 credits)

PSYC 422 History and Systems (4 credits)

PSYC 424 Clinical Psychology (4 credits)

PSYC 428 Theories of Counseling and Psychotherapy (4 credits)

Students should consult early with a department adviser to have their plan approved.

PSYC 111 General Psychology (4 credits)

An introduction to the research questions, concepts, theories, methods, and findings of psychological science. Although the selection varies with instructor, topics include brain function, psychological testing, sensation and perception, cognition (learning, memory, language), states of consciousness, motivation, human development, personality, origins and treatment of disorders, social behavior, stress and health, and applied psychology (workplace, community, environment). This course fulfills the Social Analysis requirement in the core curriculum.

PSYC 121 Social Psychology (4 credits)

A survey of theories and research findings in social psychology. Topics covered include attitude change, love and liking, aggression, stereotypes and altruism and conformity.

Prerequisite: PSYC 111

PSYC 151 Cross-Cultural Psychology (4 credits)

This course is designed to cover the issues and themes current in the field of cross-cultural psychology. Examples of such issues include: cultural variation along the lines of collectivism and individualism; psychological principles that might be universal compared to those that are culturally specific; how content and context affect psychological functioning, and variation within as well as between cultures. A range of substantive areas within psychology will be examined, including social, developmental, organizational, cognitive, health psychology, and psychology of emotion. Examples will be drawn from a range of non-Western cultures (*e.g.*, Japan, India, Liberia) as well as various cultures within the United States (*e.g.*, African-American, Hispanic, American Indian). Emphasis will be placed on how Western and non-Western cultures differ from each other, on how non-Western cultures differ from each other, and on how intra-cultural variation also plays important roles in psychological functioning. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: PSYC 111

PSYC 200 Psychology of Infancy and Childhood (4 credits) (PSYC 202)

An introduction to issues and theories of development dealing with infancy, toddlerhood, and early and middle childhood. The course covers physical, intellectual, emotional, personality, and social development. Mechanisms of heredity, as well as the relative effects of heredity and environment also are covered.

Prerequisite: PSYC 111

NOTE: Students who receive credit for PSYC 200 may not receive credit for PSYC 202.

Psychology

PSYC 202 Lifespan Development (4 credits) (PSYC 200)

Principles and theories of development throughout the life span; interplay among the physical, emotional, social and intellectual variables in the process of growth and development.

Prerequisite: PSYC 111

NOTE: Students who receive credit for PSYC 202 may not receive credit for PSYC 200.

PSYC 203 Psychology of Adolescence (4 credits)

This course reviews the principles, theories, research and application of physical, psychological and social growth during the adolescent's relationships with adults and peers, their sex attitudes and behaviors, moral development and religious values, school and vocational choices, alienation and commitment.

Prerequisite: PSYC 111

PSYC 204 The Psychology of Adulthood and Aging (4 credits)

Theories of and research in physical, emotional, social, personality and intellectual development in adulthood and in old age. This course will emphasize the psychological adjustment to the stresses and demands (*e.g.*, vocation, marriage, retirement, bereavement) the individual encounters during those developmental stages.

Prerequisite: PSYC 111

PSYC 205 Psychology of Women (4 credits)

An examination of physiological, experiential, and social factors affecting the psychological development of women and their status as adults. Topics include: biological and social learning factors in the development of sex roles and other prescribed behavior patterns, the development of performance and intellectual skills, achievement motivation, identity and self-esteem, changing concepts of sex roles, women and psychological disorders, global women's issues, *etc.* This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: PSYC 111

PSYC 206 The Brain and Human Behavior (4 credits)

An examination of brain systems that subserve human behavior. Topics include: human development, consciousness, social behavior, cognition, emotion and abnormal behavior.

Prerequisite: PSYC 111

PSYC 207 Alcohol, Other Drugs and Behavior (4 credits)

The course surveys some basic facts and principles of administration, absorption, transport, action, deactivation and elimination of drugs. Various classes of drugs; their effects on mood, behavior, and consciousness; their use and misuse; and phenomena of chemical dependency and its treatment modalities are discussed. Lectures, readings, films, tapes and invited speakers are employed.

Prerequisite: PSYC 111

PSYC 212 Research Methods in Psychology (4 credits)

This laboratory course focuses on research designs and problems, with emphasis on operationalization of concepts, development of hypotheses, specific research designs, sources of error, literature reviews, data collection, data analysis and use of APA format.

Prerequisites: PSYC 111 and QMCS 220

PSYC 288 Psychology of Marriage and the Family (4 credits)

An examination of the psychological concepts, issues, challenges and changes relevant to marriage and family today. Topics include intimacy, liking and loving, power and control, gender, marriage and family therapy, and the psychological effects of marriage vs. non-marriage, divorce, and various parenting styles.

Prerequisites: PSYC 111 and junior standing or permission of the instructor

PSYC 295, 296 Topics (2 credits)

PSYC 297, 298 Topics (4 credits)

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available at www.stthomas.edu/registrar/onlineschedule/.

PSYC 301 Psychopathology (4 credits)

This course sets forth a framework for understanding abnormal or maladaptive behavior. It will investigate specific diagnostic categories (such as depression and schizophrenia), causal factors and treatments of these maladaptive patterns.

Prerequisites: PSYC 111 and junior standing

PSYC 302 Personality Theories (4 credits)

A review of major theories of personality, including psychoanalytic, behavioristic, humanistic and trait-factor approaches.

Prerequisite: PSYC 111

PSYC 308 Motivation and Emotion (4 credits)

Survey of research and theories related to specific motives (such as hunger and thirst) as well as approaches to emotional states such as anger, happiness and sadness. Relevant research will be drawn from both the social and physiological branches of psychology.

Prerequisites: PSYC 111 and junior standing

PSYC 313 Psychological Testing (4 credits)

This course provides an overview of the principles of testing and measurement, particularly as they relate to the practice of psychology and education. The course examines the theories underlying individual and group-administered tests in such areas as intelligence, aptitude, achievement, interests, personality, neuropsychological and educational tests. Various controversial issues in the field of testing will also be addressed including ethics, bias, computer-based assessment, and testing of special populations.

Prerequisite: PSYC 212

PSYC 315 Cognition (4 credits)

This course will provide an overview of cognitive processes, the processes that collectively comprise what is commonly termed “thinking.” Topics discussed will include perception, attention, remembering, language, problem solving, reasoning, and social cognition. The course will focus on how these processes operate in everyday situations, as well as empirical (laboratory) investigations of these processes. Connections between cognitive psychology and other areas of psychology (*e.g.*, clinical, biological) will also be discussed.

Prerequisite: PSYC 111

PSYC 321 Current Research Issues in Social Psychology (4 credits)

This laboratory course includes discussion of several specific research issues in contemporary social psychology. The course includes presentation of computer applications. An original research project is required. Approximately four lectures and three laboratory hours per week.

Prerequisites: PSYC 121 and 212

PSYC 322 Sensation and Perception (4 credits)

This laboratory course includes discussion of the structure and function of sensory systems, the information that these systems provide the brain, and the subsequent interpretation of sensory information that we call perception. The course focuses on visual perception (*e.g.*, brightness, color, form, depth, movement, constancy, illusions) and auditory perception (*e.g.*, detection, discrimination, loudness, pitch) and incorporates art and music.

Prerequisite: PSYC 212

PSYC 323 Learning and Memory (4 credits)

In this laboratory course basic concepts involved in simple associative learning are presented, along with theoretical and applied concerns. The analysis and modification of animal and human behavior by means of classical and instrumental conditioning are discussed. The course also will trace the history of the study of learning from its roots in philosophy to the current cognitive approach.

Prerequisite: PSYC 212

PSYC 342 Industrial/Organizational Psychology (4 credits)

This course presents basic concepts of psychology as they apply everyday in the workplace. Topics to be covered include measurement and its applications in the workplace (*e.g.*, personnel decisions and performance appraisals), worker training, worker attitudes and motivation, worker adjustment, health and safety, leadership, communication and group behavior and development of the organization.

Prerequisites: PSYC 111 and junior standing

PSYC 400 Seminar in Cognitive and Language Development (4 credits)

Current theory and research regarding children’s understanding, thinking processes, and language acquisition are discussed. Topics include knowledge acquisition, concept formation, grammatical development, and the nature of developmental change.

Prerequisites: PSYC 200 and one additional PSYC course or permission of the instructor

PSYC 401 Physiological Psychology (4 credits)

This laboratory course includes study of the brain, its function and its control of behavior. Neuroanatomical, neurophysiological, and biochemical substrates of behaviors associated with feeding, drinking, sex, sleep, arousal, emotion, learning and memory are examined.

Prerequisites: PSYC 212 and BIOL 101 (or equivalent)

PSYC 407 Seminar in Behavioral Neuroscience (4 credits)

Analysis and discussion of selected theories and new research concerning brain mechanisms that subserve behavior. Advances in methodology and instrumentation also will be examined.

Prerequisite: PSYC 401

PSYC 415 Research Issues in Cognition (4 credits)

This laboratory course explores research issues in cognitive psychology, with special emphasis on cognitive psychology methodology, current research issues, hands-on research, and discussion/analysis of primary research sources.

Psychology – Quantitative Methods and Computer Science

Specific topics covered each semester may vary slightly. Examples of topics include: subliminal perception; automatic processing; implicit memory; eyewitness testimony; memory reconstruction; expertise and problem solving; the use of heuristics in decision making; person memory.

Prerequisites: PSYC 212 and 275

PSYC 422 History and Systems (4 credits)

This course explores how contemporary psychology developed from its remote and more recent roots. It emphasizes the contributions, contributors and perennial issues that led to psychology today and that could help to fashion its future.

Prerequisites: Senior standing and must be major in Psychology.

PSYC 424 Clinical Psychology (4 credits)

Study of the clinical application of psychological processes in the evaluation, diagnosis and treatment of behavioral disorders.

Prerequisites: PSYC 301 and three psychology courses or permission of instructor

PSYC 428 Theories of Counseling and Psychotherapy (4 credits)

Theories and procedures of counseling and psychotherapy are discussed, including psychoanalysis, client-centered therapy, cognitive therapy, behavior therapy, and others.

Prerequisites: PSYC 301 and three psychology courses or permission of the instructor

PSYC 475, 476 Experiential Learning (2 credits)

PSYC 477, 478 Experiential Learning (4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

PSYC 483, 484 Seminar (2 credits)

PSYC 485, 486 Seminar (4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

PSYC 487, 488 Topics (2 credits)

PSYC 489, 490 Topics (4 credits)

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available at www.stthomas.edu/registrar/onlineschedule/.

PSYC 491, 492 Research (2 credits)

PSYC 493, 494 Research (4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

PSYC 495, 496 Individual Study (2 credits)

PSYC 497, 498 Individual Study (4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

Quantitative Methods and Computer Science (QMCS)

College of Arts and Sciences

Department of Quantitative Methods and Computer Science

Heltne (chair), Bagley, Hansen, Jarvis, Komar, Pliego, Raymond, Schwebel (emeritus), Smith, Sturm, Werness

Quantitative Methods and Computer Science is part of the liberal arts curriculum at the University of St. Thomas. The QMCS program is concerned with the collection, organization, processing, storage, retrieval, communication, and use of information in today’s society. The emphasis is on the core of knowledge required to become an effective user of information; to design and implement system and application software; and to understand the concepts involved in areas such as database design, systems analysis, telecommunication, security, artificial intelligence, statistics and operations research. Program goals can be found on the department website: www.stthomas.edu/qmcs.

The department has arranged its program to prepare students to work in business, industry, education, and government as designers or users, or to pursue entrepreneurial interests in technologically supported areas or to continue study in graduate school. Courses are arranged to encourage participation of students from other disciplines. The department defines three paths for its majors: Computer Science (CS), Computer Information Systems (CIS), and Quantitative Methods (QM). These paths are described below. The department encourages majors to obtain a minor in another field. Students interested in teacher licensure should see the various science and mathematics programs in the Department of Teacher Education section of this catalog. There is also a dual degree program with Engineering.

Major in Quantitative Methods and Computer Science

QMCS 220 Statistics I (4 credits)

QMCS 230 Software Design Using the JAVA Language (4 credits)*

QMCS 281 Object-Oriented Design and Programming (4 credits)*

QMCS 350 Data and File Structures (4 credits)

*A grade of C- or higher must be earned by majors in each of these courses chosen to fulfill the core requirement.