

# PSYCHOLOGY (PSYCH)

## **PSYCH 1100 Introduction to Psychology** (LEC 1.0)

An introduction to the study of psychology at S&T. Students will learn about personal and professional opportunities associated with the different areas of psychology and become acquainted with the psychology faculty and campus facilities.

## **PSYCH 1101 General Psychology** (LEC 3.0)

An introduction to the science of the human mind and behavior. Topics include brain structure and function, human development, learning and memory, motivation, emotion, personality and psychological health, psychological disorders and their treatment, and social cognition and human relationships.

## **PSYCH 2000 Special Problems** (IND 0.0-6.0)

Problems or readings on specific subjects or projects in the department. Consent of instructor required.

## **PSYCH 2001 Special Topics** (LEC 0.0 and LAB 0.0)

This course is designed to give the department an opportunity to test a new course. Variable title.

## **PSYCH 2200 Research Methods** (LAB 1.0 and LEC 3.0)

An introduction to the content, models and methodologies of psychological research. This course covers the fundamental components of psychological research including the literature review, correlational and descriptive methods, experimental design, statistical analyses, interpretation, and ethics. Prerequisites: Psych 1101; Stat 1115, Stat 3113, or Stat 3115. Stat 1115 preferred.

## **PSYCH 2300 Educational Psychology** (LEC 3.0)

Principles of psychology relevant to the field of education. Course covers theoretical and applied information on such topics as human growth and development, and cognitive and behavioral views of learning and intelligence. The course also covers motivation, creation of learning environments, measurement and evaluation of learning. Prerequisite: Psych 1101. (Co-listed with Educ 2102).

## **PSYCH 3000 Special Problems In Psychology** (IND 0.0-6.0)

Problems or readings on specific subjects or projects in the department. Consent of instructor required.

## **PSYCH 3001 Special Topics** (LEC 0.0-6.0)

This course is designed to give the department an opportunity to test a new course. Variable title.

## **PSYCH 3310 Developmental Psychology** (LEC 3.0)

A study of human growth and development across the lifespan. The course emphasizes the interaction of physical, psychological, and social changes and their resulting impact on the developing person at all stages in life. Prerequisite: Psych 1101.

## **PSYCH 3311 Psychological & Educational Development Of The Adolescent** (LEC 3.0)

An examination of the biological, social, and cognitive transitions that occur during adolescence. Other topics include the role of families, the role of peers, the adolescent identity, sexuality, the impact of schools, the role of achievement, how adolescents spend their time (work, leisure), the role of the media, and problems encountered by the adolescent. Prerequisite: Psych 1101.

## **PSYCH 3400 Theories Of Learning** (LEC 3.0)

An examination of basic learning processes and the behavioral phenomena that arise from them. Topics include non-associative learning, classical conditioning, operant conditioning, and vicarious learning. Prerequisite: Psych 1101.

**PSYCH 4000 Special Problems And Readings In Psychology** (IND 0.0-6.0)  
Problems or readings on specific subjects or projects in the department. Consent of instructor required.

## **PSYCH 4001 Special Topics** (LEC 0.0-6.0)

This course is designed to give the department an opportunity to test a new course. Variable title.

## **PSYCH 4010 Seminar** (RSD 0.0-6.0)

Prerequisite: Senior Standing.

## **PSYCH 4099 Undergraduate Research** (IND 0.0-6.0)

Designed for the undergraduate student who wishes to engage in research. Not for graduate credit. Not more than six credit hours allowed for graduation credit. Subject and credit to be arranged with the instructor. Prerequisite: Instructor consent.

## **PSYCH 4200 Tests and Measurements** (LEC 3.0)

Theoretical and statistical basis of psychological testing and measurement; test development and validation; examination of standardized tests of intelligence, aptitude, interest, personality, attitudes, and psychopathology; use of test and test batteries for diagnostics and prediction of criteria. Prerequisite: Psych 1101.

## **PSYCH 4310 Psychology Of The Exceptional Child** (LEC 3.0)

Study of the psychology of children on both ends of the educational spectrum. The course presents the fundamentals of providing services as well as understanding the abilities and disabilities of children classified as exceptional. Includes coverage of various disabilities, and the implications of dealing with personal, family and classroom issues. Prerequisite: Psych 1101. (Co-listed with Educ 4310).

## **PSYCH 4400 Cognitive Psychology** (LEC 3.0)

This course covers basic cognitive processes and their application. Theory and research are presented on attention, perception, memory, problem solving, decision making and language. Prerequisite: Psych 1101.

## **PSYCH 4410 Neuroscience** (LEC 3.0)

The neurophysiological bases of behavior and cognition are examined. Topics covered include neuroanatomy, neurotransmission, neuropharmacology, brain systems, learning and memory, emotion, attention and consciousness, and neurologic/psychological disorders. Prerequisite: Psych 1101.

## **PSYCH 4411 Sensation and Perception** (LEC 3.0)

An in-depth examination of the human senses, with special emphasis on vision and hearing. Topics include the anatomy and physiology of the eye and ear, neural transduction, the organization and interpretation of sensory signals by the brain, selective attention, and the neural basis of the perception of color, form, space, depth, motion, music, and language. Prerequisite: Psych 1101.

## **PSYCH 4500 Personality Theory** (LEC 3.0)

An examination of the ways in which personality traits develop and the sources of differences among people in the traits they exhibit. The emphasis is on major theories of personality development, as well as recent research in the field. Prerequisite: Psych 1101.

## **PSYCH 4501 Abnormal Psychology** (LEC 3.0)

An introductory study of various forms of personality and behavioral disorders. Consideration will be given to neurosis, psychosis, mental deficiency and other deviations, with emphasis on etiology and treatment. Prerequisite: Psych 1101.

**PSYCH 4510 Clinical Psychology** (LEC 3.0)

Comprehensive survey of the field of clinical psychology. Course will cover a variety of assessment and treatment procedures relevant to psychology and other professionals who treat human adjustment problems; techniques based on experimental outcome research and psychological testing will be emphasized. Prerequisites: Psych 1101 and Psych 4501.

**PSYCH 4590 Health Psychology** (LEC 3.0)

This course examines Health Psychology. Topics include basic behavioral pharmacology (involving alcohol and other drugs), illusions of invulnerability to risk, stress and coping, and the science of persuading people to protect their health. Students learn how to construct a public service announcement towards a societal problem as part of the course. Prerequisite: Psych 1101.

**PSYCH 4600 Social Psychology** (LEC 3.0)

An exploration of the phenomena involved in human social behavior and the theories that explain them. Topics typically include social thinking, attitudes and attitude change, conformity, persuasion, interpersonal attraction, and more. Prerequisite: Psych 1101.

**PSYCH 4601 Group Dynamics** (LEC 3.0)

A review of the concepts and theories related to group dynamics. Topics include group goals, communication within groups, group structure, norms, leadership, decision making, controversy, conflict resolution, power, diversity issues, and team development. Prerequisite: Psych 1101.

**PSYCH 4602 Organizational Psychology** (LEC 3.0)

Analysis, comprehension, and prediction of human behavior in organizational settings through the scientific study of individual processes, group processes, and organizational structure and function. Prerequisite: Psych 1101.

**PSYCH 4603 Social Influence: Science and Practice** (LEC 3.0)

Principles and procedures that affect the process of social influence, with consideration given to attitudinal, compliance inducing, and perceptual influences. Prerequisite: Psych 1101.

**PSYCH 4610 Psychology of Leadership in Organizations** (LEC 3.0)

Examination of conceptual and empirical research on determinants of effective vs. ineffective leadership. Topics include leadership measurement, traits, skills, leader-member exchange, charismatic and transformational leadership, change management, team leadership, and ethical leadership. Practical guidelines for developing leadership skills are discussed. Prerequisite: Psych 1101.

**PSYCH 4700 Industrial Psychology** (LEC 3.0)

An overview of the field of industrial psychology including topics such as criterion development, job analysis, selection, training, performance assessment, and some human factors concerns. Prerequisite: Psych 1101.

**PSYCH 4710 Human Factors** (LEC 3.0)

An examination of human-machine systems and the characteristics of people that affect system performance. Topics include applied research methods, systems analysis, and the perceptual, cognitive, physical and social strengths and limitations of human beings. The focus is on user-centered design of technology, particularly in manufacturing environments. Prerequisite: Psych 1101. (Co-listed with Eng Mgt 4330).

**PSYCH 4720 Human-Computer Interaction** (LEC 3.0)

Research, theory, and practice from psychology and other social science disciplines have implications for the effective design and use of computers in organizations. This course introduces students to the psychological issues in software engineering, technology in the workplace, and organizational design. Prerequisite: Psych 1101.

**PSYCH 4730 Environmental Psychology** (LEC 3.0)

An examination of the psychological effects of various environmental designs and ways to design environments effectively. Topics include: environmental attitudes, perception, and cognition; environmental influences, crowding, and the application of environmental design principles to living, educational, work, and recreational settings. Prerequisite: Psych 1101.

**PSYCH 4990 Internship** (IND 0.0-6.0)

Internship will involve students applying critical thinking skills and discipline specific knowledge in a work setting based on a project designed by the advisor and employee. Activities will vary depending on the student's background and the setting. Prerequisite: Junior or Senior Psychology major; consent of instructor; must have completed 9 hours in major.

**PSYCH 4992 Cross-Cultural Psychology** (LEC 3.0)

Study of the impact of ethnic and national culture on psychological processes and behaviors. Topics include the effects of individualism and collectivism on patterns of socialization, personality, motivation, emotion and cognition; cultural differences in diagnosis and treatment of mental and physical health; and group and organizational behavior. Prerequisite: Psych 1101.

**PSYCH 4993 Psychology of Gender** (LEC 3.0)

Overview of current research and theory on the psychology of gender. The course explores gender as a psychological and social construct that influences women's and men's lives across a variety of contexts including work, family, relationships, self-perceptions, and health. Considers how gender intersects with other social categories to shape experience. Prerequisite: Psych 1101.

**PSYCH 4994 Psychology in Media** (LEC 3.0)

Examples drawn from the media (e.g., television, movies, newspapers) will be used as the basis for discussing a wide variety of psychological phenomena, principles, and theories, and their applicability to everyday life. Prerequisite: Psych 1101.

**PSYCH 5000 Special Problems** (IND 0.0-6.0)

Problems or readings on specific subjects or projects in the department. Consent of instructor required.

**PSYCH 5001 Special Topics** (LEC 0.0-6.0)

This course is designed to give the department an opportunity to test a new graduate level course. Variable title.

**PSYCH 5010 Introduction to Industrial / Organizational Psychology** (LEC 3.0)

Review of the most recent theoretical and applied research in advanced personnel and organizational psychology. Topics will include personnel selection, training and performance appraisal, job attitudes, motivation, work groups and teams, leadership, organizational culture, and organizational development. Prerequisite: Graduate standing.

**PSYCH 5012 Ethics and Professional Responsibilities** (LEC 1.0)

Case studies examining the ethical practice of psychology in organizations will be discussed. This will include covering both the legal and ethical standards surrounding the consulting and practice of I-O psychology and personnel management in organizations. Prerequisite: Graduate standing.

**PSYCH 5200 Theories and Practice of Psychological Measurement** (LEC 3.0)

An overview of psychological tests and batteries used in a variety of disciplines. An emphasis is placed on the proper development and use of these tests and test batteries. Tests examined will include tests of intelligence, aptitude, personality, and psychopathology. Prerequisite: Psych 4200 or graduate standing.

**PSYCH 5201 Psychometrics** (LEC 3.0)

An examination of statistical methods used to develop and refine measures of human performance, aptitudes, and personality. Topics include reliability and validity, data reduction, measuring inter-relationships among variables (e.g., factor analysis, multiple regression), and testing group differences. Prerequisite: Psych 5202.

**PSYCH 5202 Applied Psychological Data Analysis** (LEC 3.0)

This course will focus on those statistical methods most useful for advanced research in psychology. We will learn to use R, a powerful, open-source statistical programming platform, and work through examples with psychological data sets including such techniques as correlation, ANOVAs, regression, and chi-squared. Prerequisite: Graduate standing.

**PSYCH 5210 Advanced Research Methods** (LEC 3.0)

Research methods and techniques, with an emphasis on conducting psychological research in organizational settings. Topics discussed include: ethics, reliability and validity in measurement and application, proper uses of experimental, quasi-experimental, and survey methodologies, as well as advanced methodologies IRT, SEM, HLM, and Meta-Analyses. Prerequisite: Graduate standing.

**PSYCH 5600 Advanced Social Psychology** (LEC 3.0)

An advanced study of the behavior of individuals in interaction within groups. Consideration will also be given to the experimental literature dealing with the formal properties of groups, conformity and deviation, intergroup relations, and attitude formation and attitude change. Prerequisite: Psych 4600.

**PSYCH 5601 Small Group Dynamics** (LEC 3.0)

This course covers group perception, identification, leadership, structure, conflict, cohesion, commitment, performance, norms, roles, influence, and decisions, and groups; relations, networks, and work teams. Students consider both theory and applications to their lives and organizations through observational, research, team and applied assignments. Prerequisite: Psych 4601 or graduate standing.

**PSYCH 5602 Organizational Development** (LEC 3.0)

Examination of the field of organizational development theories and interventions. An emphasis is placed on research methods and application of practices related to individual processes, group processes, and organizational structures and functions that impact change and development strategies and interventions. Prerequisite: Psych 4602 or graduate standing.

**PSYCH 5603 Advanced Social Influence** (LEC 3.0)

An in-depth review of the principles and procedures that affect the process of social influence, with consideration given to attitudinal, compliance inducing, and perceptual influences. Students will consider the theoretical implications and practical applications of topics in social influence in the form of independent reading, research proposals and/or projects, and observational assignments. Prerequisite: Psych 4603 or graduate standing.

**PSYCH 5700 Job Analysis and Performance Management** (LEC 3.0)

A focus on the scientific measurement of job performance. An in-depth discussion of the science and methods of appropriate job and task analysis will be discussed. Additionally, students will focus on current issues in performance management and appraisal including scientific findings related to both objective and subjective measures of performance. Prerequisite: Psych 4700 or graduate standing.

**PSYCH 5710 Advanced Human Factors** (LEC 3.0)

An in-depth review of the foundations of human factors, focusing on the interaction of people with various forms of technology in a variety of environments. Topics include research and evaluation methods, displays (e.g., visual, auditory), attention and information processing, decision making, motor skills, anthropometry, and biomechanics. (Co-listed with ENG MGT 5330).

**PSYCH 5720 Advanced Human-Computer Interaction** (LEC 3.0)

This course examines the psychological research and theories that contribute to the field of human-computer interaction. An emphasis will be placed on engaging in critical evaluation of research and applying theoretical knowledge to effectively use computers in organizations. Prerequisite: Psych 4720 or graduate standing.

**PSYCH 5730 Environmental Psychology: Research and Practice** (LEC 3.0)

An in-depth review of the theoretical perspectives in environmental psychology and the psychological effects of various environments. An emphasis is placed on the review and integration of the research to explain the psychological issues related to various environments as well as to understand ways to effectively design living, educational, work, and recreational environments. Prerequisite: Psych 4730 or graduate standing.

**PSYCH 6085 Internship** (IND 0.0-6.0)

Students will apply critical thinking skills and discipline specific knowledge in a work setting based on a project designed by the advisor and employee. Activities will vary depending on the student's background and the setting. Requires a major report. Prerequisites: Completed Core and Methods courses; instructor consent.

**PSYCH 6099 Research** (IND 0.0-6.0)

Investigations of an advanced nature leading to the preparation of a thesis or dissertation. Prerequisites: Consent of instructor required.

**PSYCH 6602 Job Attitudes, Emotions, and Discretionary Behaviors** (LEC 3.0)

Theory and research surrounding employee attitudes, emotions, and behaviors with an emphasis on antecedents and outcomes of: job satisfaction, engagement, organizational justice, trait and state positive and negative affect, organizational citizenship, counterproductive work, and proactive behaviors and the Implications for both employees and organizations. Prerequisite: Psych 5010.

**PSYCH 6610 Leadership, Motivation, and Culture** (LEC 3.0)

Examination of research related to leadership, motivation, and the impact of organizational culture on organizational performance will be discussed. The course will focus on the application of psychological theories to enhance organizational functioning and to promote positive workplace behaviors. Prerequisite: Psych 5010.

**PSYCH 6611 Leadership for Engineers** (LEC 3.0)

Provides engineers with a background in leadership concepts and principles; enables students to develop practical skills in leading and managing through multiple personal assessment. Topics include leadership styles, managing commitments, conflict resolution, change management, emotional intelligence, team dynamics and business ethics. Prerequisite: Eng Mgt 5110 or Psych 4602. (Co-listed with Eng Mgt 6112).

**PSYCH 6700 Training and Development** (LEC 3.0)

Psychological theories of learning will be covered. Students will learn how evaluate training needs in an organization as well as how to subsequently develop, implement, and validate a training program in an organizational context. Prerequisite: Psych 5700.

***PSYCH 6702 Personnel Selection*** (LEC 3.0)

Current trends and methods in personnel recruitment and selection including classification, and promotion will be examined. An emphasis will be placed on legal and methodological considerations that can impact proper testing and assessment procedures. Cognitive abilities, personality, physical abilities, and other non-cognitive assessments will be discussed. Prerequisite: Psych 5700.