

# PBSI - PSYC & BRAIN SCIENCES

## PBSI 603 Motivation and Cognitive Processes

**Credits 3. 3 Lecture Hours.** Selected topics in areas of motivation and higher mental processes; symbolic processes in perceptual organization; learning and remembering, reasoning and creativity. **Prerequisite:** Graduate classification or approval of instructor.

## PBSI 606/NRSC 606 Learning

**Credits 3. 3 Lecture Hours.** Procedural and theoretical issues in study of basic learning mechanisms in animals and humans, including Pavlovian and instrumental conditioning. Application of this work to other domains and relevant biological mechanisms also discussed. **Prerequisite:** Graduate classification or approval of instructor. **Cross Listing:** NRSC 606/PBSI 606.

## PBSI 607 Experimental Psychology

**Credits 3. 2 Lecture Hours. 3 Lab Hours.** Experimental methods; developing a general frame of reference for approaching experimental research problems. **Prerequisite:** Graduate classification or approval of instructor.

## PBSI 608 Introduction to Clinical Ethics and Techniques

**Credits 3. 3 Lecture Hours.** Ethical and legal issues in clinical practice; development of listening and interpretation skills; supervised practicum in interviewing non-clinical subjects; structured role-play of clinical situations. **Prerequisite:** Graduate classification or approval of instructor.

## PBSI 609/NRSC 609 Physiological Psychology

**Credits 3. 2 Lecture Hours. 3 Lab Hours.** Current research and methodological procedures on physiological bases of sensation-perception, memory and learning, arousal-sleep-attention, emotions and motivation. **Prerequisite:** Graduate classification or approval of instructor. **Cross Listing:** NRSC 609/PBSI 609.

## PBSI 610 Organizational Psychology

**Credits 3. 3 Lecture Hours.** Current literature and research in employee motivation, satisfaction, leadership, communication, group conflict and other group processes. **Prerequisite:** Graduate classification or approval of instructor.

## PBSI 611 Personnel Psychology

**Credits 3. 3 Lecture Hours.** Application of psychological principles and research methods to the areas of selection, placement, job analysis, performance appraisal and training. **Prerequisites:** PBSI 251 or PBSI 353 or graduate classification or approval of instructor.

## PBSI 613 Practicum in Psychological Assessment

**Credits 1 to 4. 1 to 4 Other Hours.** Application of psychological assessment across the life-span; assessment of cognitive, intellectual, academic, and memory abilities and adaptive behavior; assessment of personality, behavioral style, and systems/environment; integration of assessment measures in comprehensive psychological evaluations; attendance required at Practicum Seminar designed to integrate research, coursework, and applied training and supervisory instruction from a faculty supervisor; at least 3 credits and no more than 18 credits applied to degree plan. **Prerequisites:** PBSI 623 and PBSI 624, or approval of instructor.

## PBSI 614 Practicum in Psychology

**Credits 1 to 6. 1 to 6 Other Hours.** Practical on-the-job experience for graduate students. Activities will be guided by psychologists in the following areas: behavior modification, social, clinical, experimental and industrial. Supervision will be provided by members of University staff. May be taken more than once but not to exceed 18 hours of credit toward a graduate degree. **Prerequisite:** PBSI 608 or approval of instructor.

## PBSI 615/NRSC 615 Perceptual Processes

**Credits 3. 3 Lecture Hours.** Complex sensory and perceptual phenomena with emphasis on the relationship between perception and motivation, cognition, creativity and instinctive/ethological; learning/experiential factors in higher level perceptual processes. **Prerequisite:** Graduate classification or approval of instructor. **Cross Listing:** NRSC 615/PBSI 615.

## PBSI 616 Treatment of Problem Behavior in Children and Families

**Credits 3. 3 Lecture Hours.** Current methods of treating families with children displaying aggressive, hyperactive, underachieving and other problem behaviors in natural settings; behavior of children and adolescents at home, school and at play. **Prerequisite:** Approval of instructor.

## PBSI 617 Analytical Psychology

**Credits 3. 3 Lecture Hours.** Survey emphasizing Jungian psychology but including coverage of Freudian psychology; application of analytical principles and concepts to a variety of clinical issues and situations. **Prerequisite:** Approval of instructor.

## PBSI 618 Psychology of Persuasion

**Credits 3. 3 Lecture Hours.** Theory and scientific evidence regarding strategies and tactics of persuasion; explores theoretical controversies and presents potential integrations. **Prerequisite:** Graduate classification or approval of instructor.

## PBSI 620 Theories of Social Psychology

**Credits 3. 3 Lecture Hours.** Current theories of social psychology and a review of related studies to these theories; theories of attitude change, prosocial behavior, aggression, equity, coalition formation, social learning and S-R theory applied to social behavior. **Prerequisite:** Graduate classification or approval of instructor.

## PBSI 621 Seminar in Social Psychology

**Credits 3. 3 Other Hours.** Attitudes and persuasion; small group interaction and performance; prosocial behavior; aggression; self concept; applied social problems; gender differences in social interaction; and social cognition. May be repeated up to three times for credit.

**Prerequisite:** Approval of instructor.

## PBSI 622 Affective Science

**Credits 3. 3 Lecture Hours.** Overview of theories and approaches in the interdisciplinary field of affective science; historical and contemporary approaches focused on emotional and affective processes. **Prerequisite:** Graduate classification or approval of instructor.

## PBSI 623 Psychological Assessment I

**Credits 3. 3 Lecture Hours.** Principles of psychological testing; uses and critical evaluation of tests of achievement, intelligence, aptitude and personality. **Prerequisites:** Enrollment in Clinical Psychology Program or approval of instructor.

## PBSI 624 Psychological Assessment II

**Credits 3. 3 Lecture Hours.** Theory and application of psychological assessment of children, adolescents, and adults; assessment of cognitive, intellectual, academic, and memory abilities and adaptive behavior; integration of assessment measures in comprehensive psychological evaluations. **Prerequisite:** Enrollment in Clinical Psychology Program or approval of instructor.

## PBSI 626 Psychopathology

**Credits 3. 3 Lecture Hours.** Various symptom categories in psychopathology including differing theoretical conceptualizations of these symptom categories, and theories and research concerning etiology and treatment. **Prerequisite:** Enrollment in Clinical Psychology Program or approval of instructor.

## PBSI 627 Psychological Assessment of Children and Adolescents

**Credits 3. 3 Lecture Hours.** Theory and application of psychological assessment of toddlers, children, and adolescents; assessment of cognitive, intellectual, academic, and memory abilities and adaptive behavior; assessment of personality, behavioral style, family functioning, and child-focused systems; integration of assessment measures in comprehensive psychological evaluations. **Prerequisites:** PBSI 623 and PBSI 624, or approval of instructor.

## PBSI 629 Pain Psychology

**Credits 3. 3 Lecture Hours.** Theory and research on the psychology of pain; examination of historical and personal conceptions of pain; readings and discussions of biopsychosocial mechanisms of pain; consideration of sociodemographic and global pain disparities. **Prerequisites:** Graduate classification or approval of instructor.

## PBSI 630 Health Psychology and Behavioral Medicine

**Credits 3. 3 Lecture Hours.** Theory, research and practice of health psychology emphasizing the prevention and modification of health compromising behaviors; psychological management of stress, pain and chronic/terminal illness; effective interventions for specific health behaviors/disorders. **Prerequisite:** Graduate classification or approval of instructor.

## PBSI 631 Academic Career Development in Psychological and Brain Sciences

**Credit 1. 1 Lecture Hour.** Strategies and career planning for a research and teaching oriented academic track; focus on developing a multi-year plan for placement in a position to be maximally competitive for an academic job and preparation in how to assemble a strong application package. **Prerequisite:** Graduate classification or approval of instructor.

## PBSI 633 Gender and Minority Issues in Clinical Psychology

**Credits 3. 3 Lecture Hours.** Human behavior and mental health as a function of culture, gender and sexual orientation; discussion of absolutist, relativist and universalist perspectives in cross-cultural psychology; psychology of stereotype and prejudice; adjustment through acculturation and biculturalism; learning about our own and other cultures. **Prerequisite:** Graduate classification or approval of instructor.

## PBSI 635 Behavioral and Cellular Research Seminar

**Credits 2. 2 Other Hours.** Expose graduate students to neuroscience research, theory, and proposal development; research presentations by guest speakers, faculty, and graduate students; Discussions, readings and presentations on issues related to research design, statistics, methodology, ethics, IACUC, grant writing, presentation skills, job talks, and other relevant topics. May be taken four times for credit.

**Prerequisite:** Graduate classification or approval of instructor.

## PBSI 636 Seminar in Developmental Psychology

**Credits 3. 3 Other Hours.** Cognitive development; social and emotional development; developmental abnormalities in connection with social/emotional and cognitive development; language acquisition; family processes; and development during infancy; recent developments in these fields; topics will vary from semester to semester. May be repeated for credit up to three times as topics change. **Prerequisites:** Graduate classification or approval of instructor.

## PBSI 637 Clinical Interventions I

**Credits 3. 3 Lecture Hours.** Theory, research and techniques related to evidence-based behavioral and cognitive-behavioral approaches to clinical interventions; ethical, professional, multicultural and history/systems issues in therapeutic psychological interventions. **Prerequisite:** Enrollment in Clinical Psychology Graduate Program or approval of instructor.

## PBSI 638 Clinical Interventions II

**Credits 3. 3 Lecture Hours.** Theory, research, and techniques related to evidence-based interpersonal, psychodynamic, group therapy, and family therapy approaches to clinical interventions; ethical, professional, multicultural, and history/systems issues in therapeutic psychological interventions. **Prerequisite:** Enrollment in Clinical Psychology Graduate Program or approval of instructor.

## PBSI 639 Pediatric Psychology

**Credits 3. 3 Lecture Hours.** Application of clinical/counseling/school psychology to children and adolescents with chronic illnesses or disabilities and their families; theoretical foundations and models for consultation, assessment and intervention strategies; unique ethical and professional issues associated with research and service delivery in child health psychology/pediatric behavioral medicine. **Prerequisite:** PBSI 685, EPSY 685, PBSI 691, or EPSY 691, or approval of instructor; graduate classification.

## PBSI 642/NRSC 642 Neuroimaging Data Analysis

**Credits 3. 3 Lecture Hours.** Physics of magnetic resonance imaging; experimental design for fMRI; linear and nonlinear image registration; data denoising; data filtering and smoothing; volume and surface methods; General Linear Models and multivariate approaches to subject-level data; mixed effects modeling, random effects modeling, permutation methods for linear models; functional connectivity. **Prerequisite:** Graduate classification or approval of instructor; coursework in regression models recommended. **Cross Listing:** NRSC 642/PBSI 642.

## PBSI 649/NRSC 649 Seminar in Behavioral Neuroscience

**Credits 3. 3 Other Hours.** Behavioral neuroscience; including behavioral pharmacology, neuropharmacology, methods and techniques, drug reinforcement, behavioral toxicology, pain perception and ingestive behavior. May be repeated up to three times for credit. **Prerequisite:** Graduate classification or approval of instructor. **Cross Listing:** NRSC 649/PBSI 649.

## PBSI 650/NRSC 650 Clinical Psychopharmacology

**Credits 3. 3 Lecture Hours.** Survey of topics in clinical psychopharmacology, including pharmacodynamics, major neurotransmitter systems, and therapeutic applications and limitations. **Prerequisite:** Graduate classification or approval of instructor. **Cross Listing:** NRSC 650/PBSI 650.

## PBSI 651/AFST 651 Cultural Psychology

**Credits 3. 3 Lecture Hours.** Surveys key readings in the field of cultural psychology; discussion and examination of relationship between psychological processes (e.g., motivation, memory, self perception, prejudice) and sociocultural contexts. **Prerequisites:** Enrollment in a graduate program or approval of instructor. **Cross Listing:** AFST 651/PBSI 651.

## PBSI 652 Statistics and Research Methods in Industrial/Organizational Psychology I

**Credits 3. 3 Lecture Hours.** The first of two courses in statistics and research methods; integrates research design, appropriate methodology, and advanced statistical techniques used by industrial/organizational psychologists (e.g., General Linear Model); current topics pertinent to the content domain draws heavily from the application of quantitative psychology literature to workplace problems; statistical software packages will be used to enhance conceptual understanding. **Prerequisites:** Graduate classification or approval of instructor.

## PBSI 653 Statistics and Research Methods in Industrial/Organizational Psychology II

**Credits 3. 3 Lecture Hours.** The second of two courses in statistics and research methods; integrates research design, appropriate methodology, and advanced statistical techniques used by industrial/organizational psychologists (e.g., Generalized Linear Model, nonlinear regression); current topics pertinent to the content domain draws heavily from the application of quantitative psychology literature to workplace problems; statistical software packages will be used to enhance conceptual understanding. **Prerequisites:** PBSI 652; graduate classification or approval of instructor.

## PBSI 654 Psychometrics and Survey Design in Industrial/Organizational Psychology

**Credits 3. 3 Lecture Hours.** Study of psychological measurement for testing and assessment purposes in I/O psychology; classical and modern test theories are introduced as well as their implications for test construction and survey design; emphasis on skill acquisition through developing, administering and scoring predictor or criterion tests and presenting results. **Prerequisites:** PBSI 652; PBSI 653; graduate classification or approval of instructor.

## PBSI 655/NRSC 655 Foundations in Cognitive Neuroscience

**Credits 3. 3 Lecture Hours.** Experimental design in cognitive neuroscience; basics of cognitive neuroscience methods; perception versus imagery; attention; motor control; short-term and long-term memory; volition and consciousness; executive function; decision making; affect and psychopathology; social cognition. **Prerequisite:** Graduate classification or approval of instructor. **Cross Listing:** NRSC 655/PBSI 655.

## PBSI 656 Advanced Selection

**Credits 3. 3 Lecture Hours.** An in-depth analysis of psychological principles and employee selection methods with a focus on applied practice and current topics; emphasis on the application of evidence-based best practices to the selection process; importance of job and work analysis, testing and assessment, psychometrics, validation procedures, and measurement in light of ethical, legal, diversity and international issues. **Prerequisites:** Graduate classification or approval of instructor.

## PBSI 657 Training and Performance Management

**Credits 3. 3 Lecture Hours.** A comprehensive review of theory, research, current topics and practice associated with training and performance management; training as an organizational subsystem is emphasized as the model for the design, implementation and evaluation of training programs; appraisal and management of work performance for various organizational purposes. **Prerequisites:** Graduate classification or approval of instructor.

## PBSI 658 Work Attitudes and Motivation

**Credits 3. 3 Lecture Hours.** A critical analysis of major theories, current research and practical or current issues associated with employee attitudes and motivation in the workplace; topics include job satisfaction, organizational commitment, work engagement, stress, absenteeism, turnover, motivation, job design and quality of work, and work values; key methodological and measurement issues; application of social psychology literature to workplace problems. **Prerequisites:** Graduate classification or approval of instructor.

## PBSI 659 Groups, Teams and Leadership

**Credits 3. 3 Lecture Hours.** An in-depth review of the factors leading to effective groups, teams and leadership in organizations; topics include strategies for building high performance teams and techniques for assessing, selecting and developing leaders; the course integrates theory, research and current topics with experiential learning; application of social psychology literature to workplace problems. **Prerequisites:** Graduate classification or approval of instructor.

## PBSI 660 Self and Identity

**Credits 3. 3 Lecture Hours.** An overview of the historical and current issues related to the study of the self and identity.

## PBSI 670 Professional Seminar in Social Psychology

**Credits 2. 1 Lecture Hour. 2 Lab Hours.** Survey of recent theoretical, methodological and empirical developments in social psychology; different topics each semester will include theory and research on attitudes and persuasion, social cognition, interpersonal relationships, group processes, social development, and personality and social behavior. May be taken for credit up to eight times. **Prerequisite:** Graduate classification or approval of instructor.

## PBSI 671/NRSC 671 Experimental Design for Behavioral Scientists

**Credits 3. 2 Lecture Hours. 3 Lab Hours.** Intensive practical study of designs of special interest to behavioral scientists; repeated measures designs. **Prerequisite:** Approval of instructor. **Cross Listing:** NRSC 671/ PBSI 671.

## PBSI 673 Psychometric Theory and Methods

**Credits 3. 3 Lecture Hours.** Overview of methods for the construction and evaluation of psychological measurements including unidimensional scales and multi-variate analytical techniques; approaches include classical test theory, factor analysis, unidimensional scaling, latent trait theory, profile and discriminant analysis. **Prerequisites:** PBSI 607 and PBSI 671/NRSC 671 or equivalents.

## PBSI 674 Covariance Structure Models and Causal Analysis

**Credits 3. 3 Lecture Hours.** Advanced introduction to structural equation models and causal analysis; emphasis on underlying theory and assumptions as well as practical application for the behavioral sciences. **Prerequisites:** PBSI 671/NRSC 671 or STAT 608 or approval of the instructor.

## PBSI 675 Clinical Psychology and the Legal System

**Credits 3. 3 Lecture Hours.** Survey of theoretical and applied topics relevant to clinical psychology in the legal system; includes assessment of adjudicative competence, criminal responsibility and risk assessment; correctional psychology and offender rehabilitation. **Prerequisite:** Approval of instructor.

## PBSI 678/CPSY 678 Couples Therapy

**Credits 3. 3 Lecture Hours.** Theory and practice of marital therapy emphasizing systems and communication approaches; effective strategies and techniques; therapy with specific marital problems and obstacles to effective therapy. **Prerequisite:** PBSI 637, CPSY 631, or equivalent. **Cross Listing:** CPSY 678/PBSI 678.

## PBSI 680 Seminar in Organizational Psychology

**Credits 3. 3 Other Hours.** Areas of organizational psychology: job stress, socialization processes, motivation, leadership, person perception in organizations, conflict management. May be repeated up to five times for credit; content will vary by semester. **Prerequisite:** PBSI 610 or approval of instructor.

## PBSI 681 Industrial/Organizational Psychology

**Credits 1 to 3. 1 to 3 Other Hours.** Both research and applied colloquia provided by I/O psychologists and individuals in related disciplines. **Prerequisite:** Graduate classification or approval of instructor.

## PBSI 682 Seminar in Personnel Selection and Placement

**Credits 3. 3 Other Hours.** Personnel selection and placement including job analysis and evaluation, psychological testing, test development, psychometric theory, theories of test fairness, validity generalization, utility theory, performance appraisal and selection/placement decision models. May be repeated up to five times for credit; content will vary by semester. **Prerequisite:** PBSI 611 or approval of instructor.

## PBSI 683 Professional Seminar

**Credits 1 to 3. 1 to 3 Other Hours.** Guidance in searching for and securing internships and jobs upon graduation; review of internship requirements and expectations; professional development sessions and preparation of application materials; assistance in the transition from student to professional, e.g., professional identity, affiliation and networks. May be taken for credit up to three hours. **Prerequisites:** Graduate classification or approval of instructor.

## PBSI 684 Professional Internship

**Credits 0 to 12. 0 to 12 Other Hours.** Full-time internship experience in a departmentally-approved internship training facility. May be taken up to 12 hours for credit. **Prerequisite:** Approval of instructor.

## PBSI 685 Directed Studies

**Credits 1 to 4. 1 to 4 Other Hours.** Directed individual study of selected problem in psychology or special topics to fit small group requirements. **Prerequisite:** Approval of instructor.



## **PBSI 689 Special Topics in...**

**Credits 1 to 4. 1 to 4 Other Hours.** Selected topics in an identified area of psychology. May be repeated for credit. **Prerequisite:** Graduate classification or approval of instructor.

## **PBSI 690 Cognoscenti - Professional Issues in Cognitive Psychology**

**Credits 2. 2 Lecture Hours.** Introduce students to current themes in research, theory and practice in cognitive psychology; presentations by guest speakers from within and outside the University. **Prerequisite:** Graduate classification or approval of instructor.

## **PBSI 691 Research**

**Credits 1 to 23. 1 to 23 Other Hours.** Research for thesis.

## **PBSI 695 Manuscript Development and Publication of Academic Research in Psychological and Brain Sciences**

**Credits 3. 3 Lecture Hours.** Development of research writing and instruction on the process of publishing in scientific, peer-reviewed scientific academic journals and books; exploration of the many different aspects of publishing research; review of the mechanics of the process ranging from choosing topics, writing the paper, the submission process, the review process, dealing with rejection, responding to requests for revision and resubmission and acceptance and publication; discussion of the benefits of publishing and how publishing factors into career considerations and aspirations. **Prerequisite:** Graduate classification.

## **PBSI 696 Principles and Methods for Teaching in Psychology**

**Credits 3. 3 Lecture Hours.** Practical issues related to college teaching; reflection on and improvement of teaching skills; developing course objectives and teaching philosophies; improving teaching tools; understanding teaching-learning situations; advising students; ethics in teaching. **Prerequisite:** Graduate classification or approval of instructor.

## **PBSI 697 Seminar in the Teaching of Introductory Psychology**

**Credits 3. 3 Lecture Hours.** Introductory methods relevant to teaching psychology; for graduate students assisting in the teaching of PSYC 107. **Prerequisite:** Graduate classification or approval of instructor.