Educational Psychology 70600 – Statistics and Computer Programming II
Prerequisite: 70500 or equivalent
70500 and 70600 form an integrated sequence covering descriptive statistics, point and interval estimation, hypothesis testing, t-tests, analysis of variance, correlation, regression (including elementary matrix algebra), repeated measures designs, cross-classified data, and the use of computer packages for these analyses.

Educational Psychology 70700 – Research Methods in Educational Psychology I
This course is designed to familiarize students with all aspects of the conduct of research in the field of educational psychology. This includes skills in reading, critiquing, and formulating research studies. Specifically, students will be taught to define problems, to advance hypotheses, to select appropriate research designs and statistical procedures, to choose or devise relevant measures of performance, to analyze and interpret the data and to communicate in writing the results of research.

Educational Psychology 71300 – Socio-Emotional and Cultural Factors in Development and Education
This course will cover research and theory on culture and its relationships with social and emotional development, school achievement, motivation, and individual differences. The processes by which social and cultural variables influence differences within and between cultural groups will be analyzed in relation to learning and achievement in educational settings. Major theoretical orientations and methodological approaches will be examined as a life-span approach to socio-emotional development, peer influences, parenting practices, moral development, motivational development, and gender identity of individuals from diverse cultural groups.

Educational Psychology 71700 – Language and Communicative Development: Research and Education
This course focuses on contemporary research on language and communicative development and its effects on education. It includes a consideration of empirical research on the following topics: structural and functional development, age and critical period, processes of development, first language development, second language development, language environments, and preschool development.
**Educational Psychology 73000 – An Introduction to Psychometrics**
Prerequisite: EPSY 70600
This course will cover the following topics: test theory, test construction, reliability and validity estimation, item analysis, test bias, and introduction to item response theory.

**Educational Psychology 83500 – Categorical Data Analysis**
Prerequisite: EPSY 83300 or permission of instructor
This course presents the theory and application of methods for analyzing nominal and ordinal data, including the use of computer programs for performing these analyses. Methods covered include loglinear models, logistic regression, logit models, and latent class analysis.

**Educational Psychology 85000 – Technology, Learning, and Development**
“Technology, Learning, and Development” is a review of theory, practice, and research on contemporary uses of technology in education. The course involves readings, lectures, class discussion, and writing to consider major concepts capturing the function of educational technologies, such as (but not limited to) cultural tools, scaffolds, and digital environments. Course activities also focus on major approaches to educational technology: technologies to scaffold learning, technologies to mediate learning, technologies for academic exploration, and technologies for assessment. Students present readings, participate in class discussions, and write three 7-page papers discussing different perspectives and practices on technology use of learning and development in academic instruction.

**Educational Psychology 88000 – Applied Measurement in Education**
Prerequisite: EPSY 73000
This course is designed to introduce advanced graduate students to an array of publicly available databases that can be used to inform educational policy and practice. The objective of the course is twofold: (1) to increase students' familiarity with, and understanding of, large-scale national and international survey data made available by the U.S. Education Department (e.g., the National Assessment of Educational Progress -- NAEP, the National Educational Longitudinal Study), the Organization for Economic Co-Operation and Development's Programme of International Student Assessment (PISA), and other large-scale surveys and assessments; and (2) to introduce students to a variety of institutional research and assessment efforts at the post-secondary level in which educational measurement would be beneficial, including reliability, validity, and fairness.

**Educational Psychology 88000 – Key Challenges for K-College Education: Addressing through Policy, Pedagogy, and the Learning Process**
This course will highlight some of the key problems and challenges in the K through College educational system in achieving student learning and success. There have been a variety of attempts to address these problems. These approaches fall into the policy arena, attention to best teaching practices, and understanding and assessing student learning. Major aspects of each of these approaches will be discussed and evaluated.

**Educational Psychology 88000 – Mathematics for Social Scientists**
Prerequisite: EPSY 70600
This class will cover mathematics useful for social scientists. The purpose of learning this mathematics is to improve your ability to understand advanced methodological approaches such as structural equation models, hierarchical linear models, categorical data analysis, visualization, or network analysis. While this material is available elsewhere, taking several undergraduate mathematics courses is impractical for most students in a social science Ph.D. program. Examples will all be social science-based and the problems will involve understanding statistical techniques, some of which may not be covered in existing courses. Students intending to do further study, self-study, or who have already taken mathematics courses but do not have a clear application to real problems in social science literature will find this course helpful.