SPRING 2022 Tentative Schedule & Descriptions

MONDAY

2PM – 4PM

EPSY 83400 – PATH ANALYSIS, FACTOR ANALYSIS, AND STRUCTURAL EQUATION MODELS, 3 CR., W. WANG (CROSS-LISTED WITH PSYC 86001)
This course is designed to help students master the basic and moderate to advanced structural equation modeling (SEM) methods, through a balanced coverage of statistical theories and hands-on analytical skills. The course starts with an introduction to SEM theory and moves on to the key SEM methodological foundations—SEM model formulation, identification, estimation, evaluation, modification, and interpretation, followed by classical SEM techniques such as path analysis (SEM with observed variables), confirmatory factor analysis (CFA), multiple indicators multiple causes (MIMIC) models, and general structural equation models. The course also covers advanced SEM topics, including latent growth curve models for longitudinal data, latent variable models with multiple groups (group equality constraints and model invariance), and treatment of missing data. R programming statistical package will be taught to conduct the series of SEM models covered in the course (students with zero or insufficient R programming skills will be assisted with the DataCamp platform), and ample hands-on experiences will be provided through lab sessions and homework excises. Students are expected to be able to comfortably analyze their own research data with appropriate SEM models by the end of the semester.

4:15PM – 6:15PM

EPSY 71300 – SOCIO-EMOTIONAL & CULTURAL FACTORS IN DEVELOPMENT & EDUCATION, 3 CR., A. BHATTACHARYA
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.

EPSY 74000 – MATHEMATICS FOR SOCIAL AND BEHAVIORAL SCIENTISTS, 3 CR., J. VERKUILEN
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.

TUESDAY

4:15PM – 6:15PM

EPSY 70700 – RESEARCH METHODS IN ED. PSYCH, 3 CR., A. LIPNEVICH
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.

EPSY 88000 – CHILDHOOD AND YOUTH STUDIES: APPROACHES AND METHODS, 3 CR., C. DAUITE (CROSS-LISTED WITH PSYC 80103)
This course in Childhood and Youth Studies: Approaches and Methods involves in-depth focus on the interaction of problem, theory and method, with sustained attention to the ways in which researchers frame their investigations, develop research questions, design, implement, and report findings. Students engage with the contemporary study of children, childhood and adolescence as defined and supported in
collectives of human cultural development (education, family, social welfare, community organizations, transnational child rights projects). The course emphasizes sociocultural approaches to childhood/youth in field-based settings with young people growing up amidst contemporary challenges such as displacement, lack of access to economic and sociopolitical resources, and social exclusion. Methods addressed in this course, include ethnography/participant observation, activity-meaning system design, narrative analysis, conversation analysis, archival studies, surveys, and participatory-action research. The course uses an inductive approach to research methods, that is we examine research designs in the context of exemplary studies in interventions to address inequities in education, health, and social welfare. Course activities involve reading research articles, discussing articles orally and in writing with a focus on method, and applying the course readings and knowledge building to your own research interests.

WEDNESDAY
4:15PM – 6:15PM
- EPSY 83500 – CATEGORICAL DATA ANALYSIS, 3 CR., J. VERKUILEN
  Prerequisite: EPSY 70600 or equivalent
  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.

  6:30PM – 8:30PM
- EPSY 88000 INTRODUCTION TO DATA ANALYSIS AND PROGRAMMING WITH R AND PYTHON, 3 CR., K. MARKUS
  Course Description: R and Python offer widely used programming environments. The course offers a basic introduction to R and Python programming for data analysis and data management. The focus is on providing a firm foundation for further self-guided learning in both environments. The course is aimed at behavioral science researchers and methodologists and assumes a basic familiarity with behavioral science data analysis, commonly used statistical distributions and statistical tests. The course provides a basic introduction to flow charts and program design. The course explores the basic environments (R packages and Python modules) including key elements of syntax, data types, programming basics. The course emphasizes functional programming in R and object-oriented programming in Python.

  Course Objectives:
  1. Students will gain a basic understanding of the process of writing clear, readable, and re-usable code.
  2. Students will gain a basic level of comfort and familiarity with both the R and Python programming environments.
  3. Students will gain hands on experience with functional programming in R.
  4. Students will gain hands on experience with object-oriented programming in Python.
  5. Students will gain sufficient familiarity with both environments to explore further topics on their own.

  4:15PM – 6:15PM & 6:30PM – 8:30PM
- EPSY 70600 – STATS. & COMPUTER PROGRAMMING. II, 3 CR., D. RINDSKOPF
  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.
THURSDAY

- 4:15PM – 6:15PM
  - EPSY 71400 – INSTRUCTIONAL ISSUES: INDIVIDUAL & CULTURAL FACTORS, 3 CR., J. LUCARIELLO
    This course examines research and theory related to the influence of individual and cultural factors on teaching and learning. The applications of psychological research and theory to educational policy and practice are emphasized. Topics include models of teaching and assessment for diverse classrooms, the characteristics of learning paradigms within content areas, effective instruction for multilingual learners, Response to Intervention, and the cultural, familial, and personal factors that influence readiness to learn. Particular emphasis is placed on educational approaches and instructional strategies that respect and draw upon student diversity and individual differences to foster learning.

Other Courses To Be Offered (Schedule TBA)
- EPSY 86400 – Theory and Research on Literacy: Adults, 3 CR., D. Perin
- EPSY 87100 – Research on Learning and Instruction in Mathematics, 3 CR., K. Gjicali