## PH.D. PROGRAM IN EDUCATIONAL PSYCHOLOGY  
**F A L L  2 0 2 2**

<table>
<thead>
<tr>
<th>Time</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
</tr>
</thead>
</table>
| 2:00 PM – 4:00 PM | **EPSY 70200** – OVERVIEW OF EDUCATIONAL PSYCHOLOGY: FOUNDATIONS AND CONTEMPORARY ISSUES, 3 CR., A. BHATTACHARYA  
**EPSY 84200 / PSYC 86020** – HIERARCHICAL LINEAR MODELS, 3 CR., W. WANG  
**EPSY 717000 / SPCH 80000** – LANGUAGE AND COMMUNICATION, 3 CR, P. BROOKS |
| 4:15 PM – 6:15 PM | **EPSY 71100** – COGNITIVE DEVELOPMENT & LEARNING PROCESSES IN EDUCATION, 3 CR., A. LIPNEVICH  
**EPSY 83200** – ITEM RESPONSE THEORY, 3 CR., J. VERKUILEN |
| 6:30 PM – 8:30 PM | **EPSY 85100 / PSYCH** – TECHNOLOGY, LEARNING, AND DEVELOPMENT, 3 CR., C. DAIUTE  
**EPSY 70500** – STATS. & COMPUTER PROGRAM. I, 3 CR., D. RINDSKOPF  
**EPSY 83400 / PSYC86001** – STRUCTURAL EQUATION MODELING, 3 CR., K. MARKUS |
| 2:00 PM – 4:00 PM | **EPSY 83300** – THE GENERAL LINEAR MODEL, 3 CR., J. VERKUILEN |
FALL 2022 COURSE DESCRIPTIONS

1. **Educational Psychology 70200 – Overview of Educational Psychology: Foundations and Contemporary Issues**
   This course is designed to provide an in-depth overview of research and theory on cognitive and social development, motivation and learning, individual and group differences, teaching approaches, and assessment of learning. It will cover critical current and emerging issues in educational psychology with an emphasis on research investigations of cognitive processes and the brain, the influence of motivation on learning, the role of assessment in learning, the psychology of teaching, the effectiveness of instructional interventions, and the relationship between cognition, learning, and instruction for diverse learners. The foundational theories and contemporary issues of educational psychology will be examined across the lifespan of human development and within varied contexts, including the school, home, and community.

2. **Educational Psychology 70500 – Statistics and Computer Programming I**
   Introduction to the basic principles underlying data exploration, description, and analysis, statistical inference and the use of computer packages for data analysis. 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.

3. **Educational Psychology 71100 – Cognitive Development and Learning Processes in Education**
   In this class, we discuss theories of cognitive development and learning. The range and diversity of these theories is considerable. We will explore the role of biology and of the environment in learning and cognitive development. We will examine different interpretations of the environment (e.g., as a sociocultural one or as one of physical objects). Also, we will discuss whether learning and cognitive development are the same thing or different processes. If understood as different, we can ask whether cognitive development precedes learning. In this case, cognitive development can make learning possible (readiness for learning). Or does learning precede cognitive development and push cognitive development forward? Practical applications of theory and research to behavior - such as language, memory, and mathematical and object understanding will be discussed.

4. **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.

5. **Educational Psychology 83200 – Statistical Theories of Mental Testing/Item Response Theory**
   Prerequisite: EPSY 73000
   In recent years the traditional or classical methods of constructing and evaluating psychological tests have been replaced by more sophisticated statistical approaches. The general term for these newer methods is Item Response Theory (IRT). This course will examine the theory of these models as well as their application to real life test construction and validation problems. The course will include practice in the use of computer programs for data analysis, such as BILOG, and (if available) MULTILOG and TESTFACT.

6. **Educational Psychology 83300 – The General Linear Model**
   Prerequisite: EPSY 70600
   This course presents a general statistical procedure (the General Linear Model) for analyzing relations between a set of dependent and independent variables. Problems such as experimental designs with unequal cell frequencies, analysis of covariance, and multivariate analyses with multiple dependent variables are considered within this framework.
7. **John Jay PSYC U86001.01 (Equivalent to EPSY 83400) – Structural Equation Modeling**  
   Prerequisite: EPSY 70600 or equivalent  
   The course will provide a general introduction to the use of structural equation modeling in empirical research. The course will pay special attention to criminal justice applications, although it will provide an appropriate introduction for applications in any social or behavioral science. The course will cover path analysis, confirmatory factor analysis, and structural equation models with latent variables, including some useful special cases. The coverage will include appropriate research design, model specification, parameter estimation, assessment of model fit, and model interpretation. The treatment of these topics will emphasize practical application. The course will also introduce the use of at least one software package.

8. **Educational Psychology 84200 – Hierarchical Linear Models**  
   Prerequisite: EPSY 70600 or equivalent  
   Data often structured in hierarchies. Examples include students within classrooms, classrooms within schools; employees within departments within organizations within industries. The behavior of individuals is often affected by characteristics of the higher-level units; such effects are also called contextual effects by some researchers. New statistical methods allow the hierarchical structure of data to be included in the modeling process. Multilevel models include related areas such as variance component models, contextual models, empirical Bayes models, aggregation bias, and unit-of-analysis problems. This course will teach the history and current theory of such models, as well as their application using computer packages.

9. **Educational Psychology 85100 – Advanced Instructional Technology**  
   Prerequisite: 71400, 85000  
   This course provides training for advanced students in the use of instructional technology in a field setting. It requires students to translate their understanding of fundamental concepts acquired in earlier courses in the sequence into the development and evaluation of a variable instructional model using the latest technology.