HUMAN DEVELOPMENT AND FAMILY STUDIES (HDFS)

HDFS 501: Human Development Across the Lifespan

3 Credits

Multidisiciplinary study of theories and research on human development across the lifespan.

HDFS 502: Biological Systems in Developmental Context

3 Credits

Discusses the development of key biological systems, and their influences on behavior across the lifespan.

HDFS 503: Human Development Intervention: Analysis of Theories and Approaches

3 Credits

Theoretical and empirical analyses of multilevel approaches for enhancing development of individuals and families.

Prerequisite: graduate status in HD FS or related fields; 1st in a sequence

HDFS 504: Consultation in Human Development Intervention

3 Credits

Principles of consultative and collaborative practice with human development intervention programs in formal or informal community settings.

Prerequisite: HD FS503

HDFS 506: Design and Evaluation of Prevention and Health Promotion Programs Across the Life Span

3 Credits

Addresses theory and application of program evaluation, emphasizing process and outcome evaluation strategies for programs involving individuals, organizations and populations. HDFS (HPA) 506 Design and Evaluation of Prevention and Health Promotion Programs Across the Life Span (3) This course is designed for graduate students interested in the design and evaluation of programs in a wide range of human services (e.g., health care, social services, education). The course provides a foundation in the theory and application of program evaluation, with focused attention to the details of how such work can be proposed and conducted. The majority of the semester will focus on issues related to developing scientifically sound and viable studies of interventions in line with students' interests. The goals for this course are to help students build the knowledge and confidence to evaluate human service programs and/or policies that are implemented in research settings (academic or government) and communities or community settings (e.g., schools, health care facilities, community agencies).

Prerequisite: HD FS503 and HD FS516 ; or H P A564
Cross-listed with: HPA 506

HDFS 508: Best Practices in Preventive Intervention

1-6 Credits/Maximum of 6

Implementing empirically validated preventative programs; discussion and evaluation of theory and techniques.

Prerequisite: HD FS503

HDFS 512: Developmental Cognitive Neuroscience of Adolescence

3 Credits

In this course students will evaluate a mix of foundational and cutting-edge research and theory investigating various changes during adolescence principally from a developmental cognitive neuroscience perspective. Particular emphasis will be placed on understanding the application of non-invasive neuroimaging techniques (e.g., functional magnetic resonance imaging, EEG) and the critical role these tools have played in our understanding of adolescent development. Topics to be discussed include (but will not be limited to) structural brain development, maturation in cognitive control functions (e.g., working memory, inhibitory control), as well as affective (e.g., emotion and reward processing), and social information processing. We will also examine factors contributing to adolescent decision-making and risk-taking behaviors.

Cross-listed with: PSY 512

HDFS 515: Professional Issues in Human Development and Family Studies

1-6 Credits/Maximum of 6

Overview of issues in professional development for careers in human develop- ment and family studies.

HDFS 516: Methods of Research in Human Development

3 Credits

Review of basic research methods and statistics as applied to human development and family studies.

HDFS 517: Multilevel Methods for Developmental Research

3 Credits

This course provides an overview of multilevel regression models for students pursuing applied statistical analysis of correlated data. We will consider the primary applications for multilevel models that involve working with data that have hierarchical/nested groupings, repeated measures, and extensions of both (e.g., more involved growth trajectories). This course will cover how best to approach manipulating both fixed and random effects (i.e., in a "mixed model") as well as assessment of model fit. We will work with the type of data that are suitable for multilevel analysis, where estimated parameters can represent both broader and more specific contextual levels. Presentation of theory will cover across-discipline uses of these models (and the various other names they go by such as hierarchical linear models, random coefficient models, etc.) and will aim to set a foundation for those who want to pursue more advanced modeling approaches (e.g., using latent constructs) in future coursework.

Prerequisite: at least three statistics courses, including correlation and regression analysis

HDFS 518: Applied Statistics Laboratory

1 Credits

This course provides graduate students with practical skills in data entry, data management, and applied statistical analyses.

HDFS 519: Methods of Statistical Analysis in Human Development

3 Credits

An overview of basic statistical concepts, models, and methods for the analysis of development and change.

Prerequisite: H DEV516 , introductory statistics

HDFS 521: Child Maltreatment: Theory, Research, and Impact

3 Credits

Theory and research pertaining to the causes, bio-psycho-social consequences, and the public health impact of childhood maltreatment. The purpose of this course is for students to learn to think critically about child maltreatment concepts, research, and treatment. Students will be thinking about child maltreatment at multiple levels, including individual, family, and prevention. Therefore, this course will review the breadth of literature on the biological, psychological, and public health impact of child maltreatment including sexual abuse, physical abuse, and neglect. The course will cover the prevalence and history of child maltreatment, long-term outcomes of maltreatment, research methods, and evidence-based treatment and prevention approaches. State-of-the-art research in the areas of prevention, treatment, biological sequelae, developmental consequences, and intergenerational transmission will be covered. Building on existing research, students will learn to apply critical thinking skills in order to recognize, articulate, and apply the concept of scientific impact to the field of child maltreatment.

HDFS 523: Strategies for Data Analysis in Developmental Research

3 Credits

This course provides the skills necessary to confront the data analytic issues presented in the Human Development and Family Studies methodology core curriculum.

Prerequisite: HD FS519 or STAT 501

HDFS 525: Introduction to Family Studies

3 Credits

Introduction to current theory and research about micro and macro forces related to family relationships and development.

HDFS 526: Measurement in Human Development

3 Credits

Principles and methods for assessment of human developmental processes across the life span.

Prerequisite: EDPSY450 or PSYCH404 ; HD FS519
Cross-listed with: PSY 526

HDFS 527: Social Epidemiology

3 Credits

Application of epidemiological methods to issues in the study of human development.

Prerequisite: HD FS503 , HD FS516

HDFS 528: Observational Methodologies for Development

3 Credits

Design and application of observational methods in developmental research.

Prerequisite: graduate student standing in HD FS or psychology
Cross-listed with: PSY 528

HDFS 529: Seminar in Child Development

1-6 Credits/Maximum of 6

Readings and reports on recent findings in child development.

Prerequisite: 6 graduate credits in child development, child psychology, or educational psychology; 3 in statistics
Cross-listed with: PSY 529

HDFS 530: Longitudinal Structural Equation Modeling

3 Credits

Exposure to a wide variety of statistical models as special cases of the General Linear Mixed Model with latent variables. HD FS 530 Longitudinal Structural Equation Modeling (3) This course provides a broad overview of structural equations modeling as a method for studying developmental processes in Human Development and Family Studies. In this course, students gain a thorough hands-on understanding of a wide variety of statistical model types as special cases of the General Linear Mixed Model (GLMM) with latent variables. Specific statistical model types covered include: exploratory and confirmatory factor analysis; linear, nonlinear and multivariate latent growth curve modeling; quasi-simplex modeling; longitudinal factor modeling; multi-group factor analysis, including a concise introduction to behavior genetic modeling; mediation analysis; testing for measurement equivalence; MANCOVA with nonstandard within-subject covariance structures; outlines of statistical selection theory and principal component analysis. The presentation of these diverse model types as special instances of the same GLMM is helpful to understanding their relationships and differences and considerably streamlines applied statistical modeling. Each of these statistical model types are commonly used to analyze data from studies in the field of Human Development and Family Studies and illustrative examples are provided. Each model type is explained at 4 levels: 1) in terms of a set of simultaneous model equations; 2) as a set of matrix equations; 3) as a graphical model; and 4) as a Lisrel input code. All model assumptions are made explicit and the interrelationships between the 4 levels of model representation are emphasized. Then the model is applied to simulated and real data. The obtained model fits are assessed in terms of various statistical criteria and conclusions are explicitly drawn based on standard statistical decision theory. Selected models from studies of Human Development and other social sciences are interpreted in terms of content and possible pitfalls in their interpretation are discussed. For each modeling technique appropriate

background publications, lecture notes and advanced reading material on nonstandard topics are provided.

Prerequisite: HD FS523

HDFS 531: Family Disorganization: Stress Points in the Contemporary Family

3 Credits

Focuses on divorce, remarriage, incest, family violence as well as problems associated with family formation and parent-child relations.

Cross-listed with: SOC 531

HDFS 532: Childhood Obesity

3 Credits

This course addresses how genetic predispositions, behavioral and environmental factors affect children's obesity risk and examines strategies for obesity prevention. HDFS (NUTR) 532 Childhood Obesity (3) This course will examine the epidemic of obesity, particularly childhood obesity, and how various behavioral and environmental factors place children at risk of becoming overweight. Sources of influence that will be examined include: children's nutrition and physical activity behaviors, the family environment, the school environment and community characteristics. Media, social policy and economic factors will also be addressed. In addition, the health and psychosocial consequences of obesity, ethnic and socioeconomic disparities in the prevalence and predictors of obesity among children and adolescents will be addressed. At its conclusion, this course will examine policy initiatives and obesity prevention programs.

Cross-listed with: NUTR 532

HDFS 533: Adult Obesity

3 Credits

Important current and emerging topics in obesity research relevant to government policy and general public education; emphasis on adult obesity. HD FS (NUTR) 533 Adult Obesity (3) This course will examine the epidemic of obesity, particularly adult obesity. Obesity: Causes, Consequences and Treatment will provide a forum to introduce and discuss current and emerging topics in adult obesity research, with emphasis on policy, prevention and treatment. Focus will be given to determinants of adult obesity and translation into government policy and efforts to educate the general public on the most effective strategies for body weight regulation, obesity prevention and treatment. Sources of influence that will be examined include: environment, genetics, neural, peripheral and sensory mechanisms, food properties and food supply, and therapies and treatment of adult obesity.

Cross-listed with: NUTR 533

HDFS 534: Person-Specific Data Analysis

3 Credits

This couse covers statistical dynamic systems modeling of multivariate psychological time series obtained with single and multiple subjects.

HDFS 535: Integrating Qualitative Methods into Quantitative Research

3 Credits/Maximum of 999

Focuses on effective ways to integrate qualitative methods into quantitative approaches to research in human development and family studies. The purpose of this course is to cover how best to combine quantitative and qualitative methods in human development and family studies research. This course begins with the assumption that students have an existing research question to test through quantitative approaches that involve the formulation of research hypotheses before data collection. The course then explores how qualitative data approaches can further enhance their study. This course emphasizes the integration of qualitative and quantitative approaches through 1) designing qualitative projects to test hypotheses, 2) the importance of sampling, and 3) coverage of R for analyzing both qualitative and quantitative data. The course begins with an overview of mixed methods research. The course then addresses qualitative research and the development of qualitative research projects, before describing how to combine quantitative and qualitative data. The course will address best practices for sampling in mixed methods research. The course then will cover specific issues in qualitative research such as ethnographic data, intensive interviewing, and focus groups. The remainder of the course will cover specific issues in mixed methods designs, such as research designs, divergent findings, life history calendars, and statistical programs for mixed methods data.

Prerequisite: HD FS 516

HDFS 537: Biosocial Perspectives on the Family

3 Credits

The implications of knowledge from behavioral endocrinology, behavior genetics, and evolutionary psychology for understanding family relationships and child development. HD FS 537. (SOC 537) Biosocial Perspectives on the Family (3) Breakthroughs in the way biological variables are measured and modeled have generated new findings that greatly increase our understanding of the reciprocal influences between family relationships, child development, and biological factors. Specifically, advances in the study of hormones, genetics, evolution, pharmacology, and immunology have led to important advances in our knowledge of gender, becoming a parent, early child development, middle child, and adolescent development, parent-child relations, courtship and mate selection, quality of intimate relations, separation and divorce, incest, and dominance and family violence.Students are required to keep a journal of researchable ideas during the first five weeks of class. The purpose is to give students practice in identifying research needs and opportunities. The journal should include 4-6 research problems, each developed in 2-3 typed pages. The majority of each entry should be a clear statement of what knowledge gains would be realized by conducting the study and why they are important. The remainder of the statement should include consideration of the data you would use, measures of major variables, and analytic strategies. Think of it as a brief portfolio of thesis, dissertation, or research publication ideas.Entries on research projects in which you are already involved are not eligible for inclusion in the journal. On the last page of the journal, indicate which problem you would like to develop into a more detailed proposal during the remainder of the semester and why. Turn in the journal during week 5. I will evaluate your entries and comment on your selection idea. The rest of the semester will be spent on developing one of the ideas to a full-blown proposal (about 20 pages). You should turn in as many drafts as needed to receive a good grade for this segment of the course. I

expect you to turn in three or more before the end of the semester. We will meet about each draft and go over my comments. Proposal drafts should be spaced out over the semester.The last week of the semester will be devoted to presentations of research proposals after which class members will offer comments and suggestions. Your grade will be based on the proposal draft you turn in the last week of the class. Twenty-one percent of the course grade is based on the research proposal.

Cross-listed with: SOC 537

HDFS 538: Dynamical Systems Methods and Applications

3 Credits

The course will provide an overview of the concepts and theory behind dynamical systems. Practical methods for exploring linear and nonlinear relations in multivariate longitudinal data, as well as methods for fitting dynamical systems models to panel and intensive longitudinal data (e.g., diary / experience sampling / ecological momentary assessments) will be presented. Examples may include difference and differential equation models, structural equation models with regime switching/ latent transition, and mixture/random effects extensions of these models. A variety of examples of dynamical systems from developmental research, family studies, and intervention science will be presented to provide some perspectives on when Dynamical Systems techniques might be useful. We will also develop hands-on familiarity with different types of dynamical systems by using software programs to simulate, fit, and assess model-fitting results from different dynamical systems models. Students are encouraged to bring research issues and data pertinent to their own interests to class for discussion and critique. Recommended Preparations: HDFS 523 or other equivalents covering regression and multivariate data analysis techniques. The prerequisite may be waived or replaced with other courses in consultation with the instructor. Prior experience in mixed effects modeling and/or structural equation modeling is helpful, but not required.

Prerequisite: HDFS 523

HDFS 539: Seminar in Adolescent Development

1-6 Credits/Maximum of 6

Cultural, psychological, and biological aspects of the developmental transition to adulthood.

Prerequisite: 6 credits in individual development or psychology; 3 credits in sociology and statistics

HDFS 540: Parenting: Theory, Research and Intervention

3 Credits

Review of current theory, research, and intervention in the study of parenting. HDFS 540 Parenting: Theory, Research and Intervention (3) This course is designed to have students think critically about parenting and parenting competence by reviewing theoretical, ideological, and empirical literature. Competent parenting is a key factor in producing desirable child outcomes. Therefore, in this course, parenting competence reflects the behaviors and practices parents use that contribute to the child's ability to function in society. In particular, the course will examine how parenting behaviors, such as warmth/ responsiveness, and forms of discipline promote desired child outcomes in attachment relationships, conscience development, internalization of values, and other socio-emotional outcomes.

Prerequisite: HD FS501 or HD FS525

HDFS 541: Optimization of Behavioral and Biobehavioral Interventions

3 Credits

Evidence-based behavioral and biobehavioral interventions are used to prevent and treat health problems (e.g. school-based drug abuse prevention; smoking cessation treatment), improve educational attainment (e.g. reading improvement interventions), and promote health and well-being (e.g. parenting skills training). An intervention may be aimed at any age and delivered in any context; may be aimed at individuals, families, organizations, or communities; and may include both behavioral components and medical components such as pharmaceuticals. The purpose of this course is to enable students to understand and apply quantitative, empirical research methods for optimization of evidence-based multicomponent behavioral and biobehavioral interventions. These methods are used for two related purposes. First, they are used to obtain knowledge about what intervention components work and for whom. Second, they are used to build optimized evidence-based interventions that are not only effective, but also efficient, economical, and scalable. The methods can be used to build new interventions, improve existing interventions, or identify good approaches for implementing interventions. The course will cover a comprehensive framework for empirical development, optimization, and evaluation of evidence-based behavioral and biobehavioral interventions. Students will learn how to craft a detailed conceptual model for an intervention under development, based on existing scientific theory and literature, and the student's own ideas. A substantial amount of time in the course will be spent on experimental design for optimization trials, particularly factorial experimental designs and variations such as the fractional factorial. The emphasis will be on making the best use of available resources so as to gather the highest-quality and most relevant scientific information. Students will learn how to identify the most appropriate and efficient experimental design for an optimization trial. Practical matters, such as guarding against implementation errors when conducting an experiment in a field setting, and dealing with errors if they occur, will be reviewed. Appropriate statistical analysis of data gathered during an optimization trial will be discussed. Students will learn how use the empirical results obtained in an optimization trial as a basis for selection of the components and component levels that will make up the optimized intervention. Students will also learn how the approaches covered in this course are applicable across a broad range of intervention types and objectives, and also to determine how these approaches are applicable to optimization of interventions in the students' own individual fields of scientific endeavor.

RECOMMENDED PREPERATION: A minimum of two graduate-level statistics courses, covering at least up through multiple regression.

HDFS 546: Seminar in Family Relationships

1-9 Credits/Maximum of 9

Interpersonal interaction within family systems throughout the life cycle.

Prerequisite: I F S418

HDFS 549: Developmental Theory

3 Credits

Conceptual frameworks and major contributions to the study of individual development across the life-span.

Prerequisite: 6 credits at the 400 level in individual development or psychology
Cross-listed with: PSY 549

HDFS 552: Child Maltreatment: Developmental Processes and Biological Embedding

3 Credits

The purpose of this course is to review the breadth of literature on the biological and developmental impact of child maltreatment including sexual abuse, physical abuse, and neglect on youth victims. Students will learn how to integrate child maltreatment research into a relevant, cohesive framework for understanding child maltreatment's wide-reaching effects. The biological focus of the course will be on the health consequences of child maltreatment as well as the neurological, neuroendocrine, and genetic embedding of child maltreatment. The course will also focus on the developmental antecedents and sequelae of child maltreatment through childhood, adolescence, and the transition to adulthood, including addressing how intergenerational transmission, parenting, interpersonal relationships, and attachment are associated with exposure to child maltreatment.

Cross-listed with: BBH 552, PSY 552

HDFS 553: Child Maltreatment: Policy, Administrative Data Systems, Prevention, and Treatment

3 Credits

The course will provide an overview of the major components of the child welfare system (e.g., child protection, family court, foster care, congregate care) involved in the community response to child maltreatment and promote a critical analysis of key federal policies that guide system activities. Course participants will also become familiar with Federal, state, and community data systems, and with methods to develop integrated data systems and their relevance to evaluating system outcomes and policy effects related to the child welfare system. Next, the course will give an overview of a range of experimental, quasi-experimental, and observational research designs and analytic methods relevant to evaluating the effects of child welfare policies and practices on child and family outcomes related to child maltreatment and system involvement. Finally, class participants will apply course content to develop applied research proposals that leverage administrative data for systems research and examine methods for communicating research findings to impact policy and practice at the community and federal levels. This course will also provide an in-depth examination of the major behavioral interventions, both preventive and treatment, applied with the child maltreatment population. Students will first be given an overview of the philosophy of science and experimental methods used to establish behavioral interventions for child maltreatment. From there, students will review emerging paradigms within national funding agencies that focus on identifying and targeting mechanisms to optimize intervention effects.

Cross-listed with: BBH 553, PSY 553

HDFS 569: Seminar on Development in Middle Age

1-6 Credits/Maximum of 6

Interdisciplinary approach to study of human development in middle age, including psychological, cultural, and biological aspects.

Prerequisite: HD FS501

HDFS 575: Applied Longitudinal Data Analysis

3 Credits/Maximum of 999

Students learn techniques for analysis of intensive longitudinal data in the social sciences. The purpose of this course is to facilitate formulation of research questions, design of studies, measurement devices, and methods of analysis suitable for the types of empirical data obtained in intensive longitudinal studies (e.g., diary / experience sampling / ecological momentary assessment) being used in the social sciences. Students will gain skills useful in the study of developmental or other change-based processes. In particular, students will gain abilities related to research conceptualization, research design, data analysis, results interpretation, and the presentation and critique of longitudinal research. The course will (1) highlight general issues regarding the link between process-oriented research questions and longitudinal study designs, (2) survey a selection of intraindividual change and variability concepts, (3) provide step-by-step instruction on data manipulation, graphing, and the analysis of intensive repeated measures data (univariate and multivariate), and (4) develop students' skill in effectively communicating the features of longitudinal data and results of longitudinal analysis. Specific topics include the use of intraindividual variability metrics, multilevel models, generalized multilevel models, multivariate multilevel models, and P-technique factor analysis for measurement and modeling of dynamic characteristics and dynamic processes; the design and implementation of multiple time-scale studies; and how new technologies are shaping both the collection and analysis of intensive longitudinal data in the social sciences.

Prerequisite: HD FS 519 or STAT 501

HDFS 577: Poverty, Policies, and Child Development

3 Credits

Focuses on interrelationships among families, poverty, and social policies.

Prerequisite: HD FS525

HDFS 578: Contemporary Issues in Interdisciplinary Educational Intervention Sciences

2-3 Credits

Proseminar exploring contemporary issues in the design and evaluation of educational interventions from an interdisciplinary perspective.

Cross-listed with: EDPSY 578, PSY 578

HDFS 579: Seminar in Adult Development and Aging

1-9 Credits/Maximum of 9

A seminar dealing with specific topics concerning adult development and aging.

Prerequisite: I F S445 , statistics

HDFS 590: Colloquium

1-3 Credits/Maximum of 3

Continuing seminars which consist of a series of individual lectures by faculty, students, or outside speakers.

HDFS 595: Field Projects in Individual and Family Studies

1-9 Credits/Maximum of 9

Supervised research or internship in human services program.

Prerequisite: instructor's approval of proposed project

HDFS 596: Individual Studies

1-9 Credits/Maximum of 9

Creative projects, including nonthesis research, which are supervised on an individual basis and which fall outside the scope of formal courses.

Prerequisite: instructor's approval of proposed study

HDFS 596B: **SPECIAL TOPICS**

3 Credits

HDFS 597: Special Topics

1-9 Credits/Maximum of 9

Formal courses given on a topical or special interest subject which may be offered infrequently; several different topics may be taught in one year or term.

HDFS 597A: **SPECIAL TOPICS**

3 Credits

HDFS 600: Thesis Research

1-15 Credits/Maximum of 999

No description.

HDFS 601: Ph.D. Dissertation Full-Time

0 Credits/Maximum of 999

No description.

HDFS 602: Supervised Experience in College Teaching

1-3 Credits/Maximum of 6

Supervised experience in teaching and orientation to other selected aspects of the profession at The Pennsylvania State University.

HDFS 610: Thesis Research Off Campus

1-15 Credits/Maximum of 999

No description.

HDFS 611: Ph.D. Dissertation Part-Time

0 Credits/Maximum of 999

No description.