Educational Psychology:
Applied Developmental Science

M.Ed. Student Handbook
2018-19
Welcome to the Educational Psychology - Applied Developmental Science (EP-ADS) M.Ed. Program!

Our Mission

Our work is focused on promoting human development in its diversity and complexity. We identify meaningful, relevant problems and develop solutions to address them. Our work is interdisciplinary, methodologically rigorous, and strengths-based.

Program Overview

The Educational Psychology and Applied Developmental Science (EP-ADS) program focuses on studying and improving the social and cognitive lives of children and adolescents. EP-ADS students learn theory and research on how school and out-of-school settings influence learning and development. Students have hands-on experience developing and evaluating interventions designed to support children and youth to become important, contributing members of society. Course work provides content in educational and applied developmental psychology as well as research design, methods and statistics. EP-ADS faculty and students work together closely, fostering a productive, engaging, and exciting learning environment.

What is the Master’s degree in EP-ADS?

The Educational Psychology-Applied Developmental Science (EP-ADS) Master of Education (M.Ed.) program is designed specifically for students who are interested in learning how developmental processes influence learning, performance and behavior in educational settings. The program focuses on the development of children, youth and adults in their social contexts; takes a strengths-based approach to understanding the lives of children and youth; explores questions about children and youth using an interdisciplinary perspective; and relies on rigorous research design to examine questions relevant to practice and policy. We are housed in the Educational Leadership, Foundations and Policy Department (EDLF) in the Curry School of Education at the University of Virginia.

Training & Skills

Our graduating students develop a rich understanding of child and youth development. The EP-ADS program prepares students to be successful in a variety of settings, including non-profit organizations or foundations that focus on improving the lives of youth and children, educational research firms, applied settings such as school districts, community colleges, or informal education settings and doctoral programs. Graduates learn a variety of skills such as:

- writing literature reviews;
- interpreting and evaluating empirical research articles;
- conducting basic data analyses and interpreting results; and
- developing and implementing educational programs
Program Components

The program includes three parts:

- Coursework
- Internship experience
- Comprehensive exam

Most students complete the program full-time over three semesters; some students may elect to complete the program part-time over 2-3 years. Each admitted student has a primary advisor who will help them choose their courses, select or create their internship experience, and decide on their comprehensive exam topic. You are also assigned to a secondary advisor who will provide guidance in the development of research and program development skills in your area of interest. As a result, you will design a master’s program that is uniquely tailored to your interests and strengths.

Why this program?

First, the program is structured to provide you with a solid conceptual understanding of child and youth development as well as methods that people use to study and evaluate factors that influence development. Second, our Master’s program is designed to support you with personalized mentoring as you select electives, pursue your interests, and choose a focus for your internship. Third, our program is fairly intensive in order to best prepare you for the next step in your career. We want to challenge our students to think broadly about education, to be able to solve real-world problems, and to make a difference in the social contexts of children, youth and/or adults.

2017-2018 Cohort

"The program and classes helped me practice applying research to address issues of inequality and I’m looking forward to continuing that work in my new job. I wouldn’t be here without the strong support of the EP-ADS faculty."

Andrew Majek, 2017 M.Ed. Graduate
Director of Behavior Change, Boys & Girls Clubs of America
Coursework

The M.Ed. program requires completion of a **minimum of 33 credit hours** (including the internship). Program requirements (depending on track selected) include:

- 6 credits in educational psychology
- 6 credits in developmental science
- 6-9 credits in methods courses
- 6-9 credits in electives
- 6 credit internship in fall/spring, spring/summer or summer only

**Required Courses**

Educational Psychology (EDLF 7150) is a foundational course that provides a basis for an understanding of the field of Educational Psychology. Another required course is Seminar in Educational Psychology (EDLF 7290). This course provides an opportunity for students to reflect and synthesize your learning across courses, learn about research at Curry, and explore and prepare for careers in the field.

The other courses needed to fulfill program requirements fit into two categories: substantive courses on developmental science and methods courses in education science. The substantive courses in developmental science offer students a broad understanding of child, adolescent, and lifespan development. Students are required to take two development courses (e.g. Lifespan Development, Child Development, Adolescent Development, Adult Development and Aging).

The methods courses provide instruction on the qualitative and quantitative methods that researchers use to answer questions about developmental processes. Students should discuss course selection with the program adviser based on prior course work in methodology.

All students in the Applied Research track should select 1) either Qualitative Analysis or Tests and Measurements, 2) one quantitative methods course, (e.g. Statistics 1, 2, 3 or 4), and 3) a third course that aligns with career goals (e.g. Tests and Measurement, Data Management, Program Evaluation or Qualitative Analysis). Data management is a very marketable skill; EDLF 5310 is highly recommended for students who are pursuing careers in educational research organizations such as Child Trends, the Rand Corporation or the American Institute of Research or doctoral studies. Students in the Applied Professional track should select one quantitative methods course (Statistics 1, 2, 3, or 4), and one other course that is aligned with their career goals. Program Evaluation, Qualitative Analyses or Tests and Measurements are recommended options.
All of our classes strive to include practical application of principles and theories; for example, in Motivation in Achievement Contexts (EDLF 5470) students work with a group to investigate the motivational component of community programs, providing feedback to community partners. Students are encouraged to take elective courses. Students should make these decisions in collaboration with their advisor.

Electives

We encourage you to shape your master’s experience with electives that align with your interests and long-term goals. Students may choose electives based on a content area or a developmental range you are interested in learning more about. In the event that a student has already completed one or more of the recommended offerings with graduate courses taken elsewhere, up to six credits may be transferred into the program. Although no more than six credits may be used from other programs, we encourage students to substitute electives for courses that are recommended but they have already taken to avoid duplication of content. The program coordinator must approve all transferred credits and substitutions. In keeping with the interdisciplinary goals of the program, we encourage students to use their electives to take advantage of the variety of courses at Curry. In accordance with Graduate Record requirements, at least 24 of the 33 required credit hours must be taken at the University of Virginia. Further, at least 18 credits must be completed after admission to the program.

Advising

Students will have two advisors, a primary and secondary. The program coordinator is the primary advisor for all students in the program, while students will also be assigned a secondary advisor aligned with their interests. The advisors will work together throughout the year to monitor and support your progress. Roles for each advisor are described below.

Role of Primary Advisor
  • Support you in your successful completion of the program and make program adjustments to accommodate individual needs
  • Meet at least twice per semester including during the summer, more frequently as needed
  • Provide guidance on course work
  • Discuss challenges you face in the program and brainstorm solutions
  • Help ensure that all completed requirements are met for graduation
  • Provide advice and networking for internships, jobs and graduate schools
  • Assist with successful completion of and reflection on internship
  • Read and provide feedback on comprehensive exams
  • Potentially serve as a job and/or grad school reference
Role of Secondary Advisor

• Meet with all advisees in August to discuss research opportunities.
  o Students who select the applied research track may work with their secondary advisor in the fall and spring or spring and summer on research related to one of their projects. They should sign up for 3 credits of EDLF 8998 each semester.
  o Invite students to project meetings regularly so that they can understand the big picture of the project work.
  o When possible, provide funding for research contributions.

• Students who select the applied professional track may want to engage in research for one semester, or to attend research team meetings to understand the type of work that their advisor does.

• Provide advice and networking for internships, jobs and graduate schools
• Share expertise in area of specialization
• Read and provide feedback on comprehensive exam
• Potentially serve as a job and/or grad school reference (depending on the extent to which the student engages in advisor’s research)

Program Options

Students can choose an **Applied Research** or an **Applied Professional** track when they begin the program. Each track is described below. Many students are unsure about their career goals and may not yet know which track would be the best fit for them. These students can start out on a general track, choose a variety of courses as they begin the program, and then meet with their advisor to decide which track to follow as they complete their degree.

**Applied Research Track**

Students in this track express a desire to contribute to conducting research and advancing knowledge in the field of applied developmental science in their career. They are interested in participating in systematic data collection and study that contributes to describing, explaining and/or optimizing developmental trajectories.

Job options for students who graduate from this track include work as research analysts (at organizations such as the American Institute of Research or Child Trends), research assistants at universities or data analysts for school systems. Students who plan to
apply to doctoral programs that emphasize research should also select this track. Course requirements for this track include:

**6 credits in Educational Psychology**
- EDLF 7150 Educational Psychology
- EDLF 7290 Seminar in Educational Psychology (1 credit in fall, 2 credits in spring)

**6 credits in Developmental Science**
Select 2 from the following options:
- EDLF 5010 Child Learning and Development
- EDLF 5011 Adolescent Learning and Development
- EDLF 5160 Lifespan Development
- EDLF 5270 Adult Development and Aging
- EDLF 5700 Race, Ethnicity and Diversity in Youth Development
- EDLF 5711 Globalization, Childhood and Culture

**9 credits in Research Methods**
*Note: See Appendix A for descriptions of research methods courses and guide to course sequences.*

Please select one of these two courses:
- EDLF 7404 Qualitative Methods
- EDLF 7180 Tests and Measurements

Then, choose two more research methods courses from the following options:
- EDLF 5310 Data Management for Social Sciences Research
- EDLF 5500 Field Experiments
- EDLF 5330 Quantitative Methods I
- EDLF 7420 Quantitative Methods II: General Linear Models
- EDLF 8310 Generalized Linear Models

More advanced methods courses (included in Appendix A) may be taken by students with significant prior stats experience, with advisor and instructor permission.

**Research Internship (6 credits) (EDLF 8998)**
Students will spend the year gaining hands-on research experience under the supervision of a research mentor. They will complete a 6 credit internship in research (3 credits in fall and 3 in the spring, or 3 in spring and 3 in summer).
Students in this track will be encouraged to submit a research proposal to the Curry Research Conference. Students may also have opportunities to contribute to work that leads to proposals at regional, national or international conference (e.g. SRCD, AERA, etc.)

**Electives (6 credits)** Select courses that align with your interests and career goals.

**Applied Professional Track**

Students in this track want to deepen their knowledge and skills, and reflect on their own practices when working with children and youth. Knowledge and skills gained in the program will be applied to optimizing positive development for individuals and groups across cognitive, social-emotional, and physical domains. Students may select an area of concentration in their electives that allows them to focus on a specific population (e.g. students with disabilities or English language learners) or developmental range (e.g. early childhood or adolescents) of students.

Job options for students who graduate from this track may include: leaders of youth programs (e.g. academic, mentoring and/or recreational programs), educators (licensed teachers may return to/ remain in their classroom; others may choose to work in alternative schools such as Montessori or charter school settings), or social entrepreneurs who develop new programs designed to foster healthy development.

Course requirements for this track include:

**6 credits in Educational Psychology**

- EDLF 7150 Educational Psychology
- EDLF 7290 Seminar in Educational Psychology (1 credit in fall, 2 credits in spring)

**6 credits in Developmental Science**

Select two from the following options:

- ELDF 5010 Child Learning and Development
- EDLF 5011 Adolescent Learning and Development
- EDLF 5160 Lifespan Development
- EDLF 5270 Adult Development and Aging
- EDLF 5700 Race, Ethnicity and Diversity in Youth Development
- EDLF 5711 Globalization, Childhood and Culture

**6 credits in Research Methods**
Note: See Appendix A for descriptions of research methods courses and guide to course sequences.

Please select one of these two courses:

• EDLF 7404 Qualitative Methods
• EDLF 7180 Tests and Measurements

One or more of the following courses:

• EDLF 5330 Statistics I
• EDLF 7420 Experimental Design and Statistical Analysis
• EDLF 8310 Correlation and Regression Analysis
• EDLF 7402 Introduction to Program Evaluation
• EDLF 7403 Survey Design & Instrument Construction
• EDLF 7404 Qualitative Methods
• EDLF 7180 Tests and Measurements
• EDIS 7330 Single Subject Research

**Internship (6 credits) (EDLF 5998)**

Students will participate in a spring/summer or summer only internship in a local organization. They will work under the direction of a supervisor who leads a program or non-profit organization for children or youth. Examples for internships include local organizations such as: City Schoolyard Garden, Ready KIDS, Boys and Girls Club, or the Young Women Leaders Program.

**Electives (6-9 credits)** Select courses that align with your interests and career goals.

**Examples of Possible Electives:**

We have included a small list of possible electives that may be offered. Electives should be selected carefully with future career goals in mind and approved by your advisor. If you are particularly interested in one of these courses for spring, check with the instructor to make sure it will be offered.

**General Electives**

• EDLF 5470 Motivation in Achievement Contexts
• EDLF 7390 Differentiating Instruction
• EDLF 7280 Creativity and Problem Solving

**International Perspectives on Education**

• EDLF 5711 Globalization, Childhood and Culture
• EDLF 7605 Anthropology of Education
• EDLF 7606 Comparative Education

Development Electives
• EDHS 5040 Motor Development
• EDHS 7245 Development and Psychopathology
• PSYCH 8650 Social and Personality Development

Educational Policy
• EDLF 5500 U.S. Education Policy
• EDLF 6080 Education Policy

Health Promotion
• EDHS 5630 Nutrition
• EDHS 7431 Exercise Principles for Health, Fitness, and Chronic Diseases
• EDLF 5700 Physical Activity and Public Health

Literacy and Language Development
• EDIS 5210 Introduction to Language Development
• EDIS 5221 Reading Development
• EDIS 7751 Literacy Leadership & Coaching

Cognitive Development
• EDLF 5500 Cognitive Psychology of Education
• EDHS 7040 Cognitive Linguistic Development
• PSYC 7300 Advanced Cognition

Students with Disabilities
• EDIS 5000 The Exceptional Learner
• EDIS 5500 Survey of Autism Spectrum Disorders
• EDIS 5700 Positive Behavior Support
• EDIS 5141 IEP and Transition Planning
• EDIS 5040 Psychoeducational Assessment

Sample Course Schedule

Fall (typically 13 credits)
• EDLF 7290 Proseminar in Educational Psychology (1 credit, required)
• EDLF 7150 Educational Psychology (3 credits, required)
• EDLF 5160 Lifespan Development (3 credits, development)
• EDLF 5330 Quantitative Methods I (3 credits, methods)
• EDLF 8998 Master’s Internship (3 credits if beginning in the fall)
Spring (typically 14-17 credits)
  - EDLF 7290 Proseminar in Educational Psychology (2 credits, required)
  - EDLF 7420 Quant. Methods II: General Linear Models (3 credits, methods)
  - EDLF 7404 Qualitative Analysis (3 credits, methods)
  - EDLF 6080 Education Policy (3 credits, elective)
  - EDLF 5260 Cognitive Psychology & Education (3 credits, elective)
  - EDLF 8998 Master’s Internship (3 credits)

Summer (typically 3-6 credits)
(Please note: Summer courses [except master’s internship or research credits] are dependent on enrollment numbers; low enrollment can result in classes being cancelled, so check with instructors and have a backup)
  - Development course (Lifespan, Child or Adolescent Development; 3 credits, development)

Professionalism

Students in the program will be interacting with UVA faculty and members of the community in a variety of ways, through internships, coursework and volunteer experiences. When corresponding by email, use professional language at all times; avoid informal words and expressions (e.g. hey, LOL, etc.). During research and internship experiences, many students will frequently visit schools, after-school sites or family residences to collect data through observations, interviews or surveys. Curry enjoys positive partnerships with local organizations, families and school divisions. We expect that you will conduct yourself professionally at all times while interacting with people at Curry and in the local community. Students should adhere to federal and state laws, school and division policies, and ethical guidelines; set goals for improving knowledge and skills and seek out resources to achieve those goals; work in a collegial and collaborative manner with administrators, school and university personnel, and the community.

Internship Experience

Students must complete a three to six-credit internship to gain new skills in the setting where they plan to work when they graduate. This requirement may be met by conducting research or data analysis in a professional setting, collaborating on an evaluation project or applying knowledge and skills about development in an educational setting. The goal of the internship is to give students an in-depth experience with some aspect of developmental science.
Interns are expected to work cooperatively or under the direction of a work supervisor for a total of 120 hours for 3 credits (applied professional track option) or 200 hours for 6 credits. Most students work on their internship over 2 semesters (fall/spring, or spring/summer). Internships that are affiliated with a partner organization outside of the university may be conducted over a 10-12-week period during the summer. Both the supervisor and a program faculty member will develop an internship plan and evaluate job performance and any final products.

Interns may receive remuneration for their work for one or two semesters during the internship. Funding for internships depends on a variety of factors: availability of funds by the research mentor, number of students who are interested in a particular project, and student skills/expertise. Part-time students may elect a 3 credit internship that complements their current work schedule and provides new skills that can be applied to their future work. Students have engaged in a variety of internship experiences that are tailored to their career goals and interests. In the past, we have had students engage in the following types of experiences:

**Applied Professional Internships**
- Working at local nonprofit or community-based organizations:
  - Boys & Girls Club
  - Computers4Kids
  - Community Schoolyard Gardens
  - Music Resource Center
  - Young Women Leaders Program
  - READY kids

**Applied Research Internships**
- Working with Curry faculty as research assistants on ongoing research projects or labs

Students occasionally produce research products from their internship experiences that result in conference proposals for the Curry Research Conference, regional or national conferences, or publications in peer-reviewed journals.

**Internship contract:** All students should begin work in the internship by attending regularly scheduled meetings and assisting with active projects. After students are oriented to the research team or organization (within 10-20 hours of beginning work), they should work together with the immediate supervisor of the internship and/or advisor to develop an internship contract (see Appendix B). The contract should 1) describe the educational goals; 2) outline the time and work involved (e.g.,
observational coding, data collection, literature search and organization, reliability analysis for a research internship, program or curricular development, leading instruction or working with individual students for a professional internship); 3) designate specific products likely to emanate from the internship experience (e.g., poster or conference presentation, curriculum module, etc.), if applicable; and 4) describe any payment involved in the internship experience. The student, program coordinator, and the immediate supervisor of the student’s internship experience should review and agree on the contract. **Students should carefully record the hours worked each day in a log that will be turned in for credit (see Appendix C for a template).**

Students will be evaluated on professional behavior, knowledge, and skills (listed in Appendix D) twice during their internships. Half-way through their internships (typically the conclusion of their first internship semester), students will complete a self-evaluation of their performance. Internship supervisors will also complete an interim evaluation and send students feedback for review. The supervisor and student will then meet to reflect on the evaluation and develop plans (in a renewed contract) for the remainder of the internship. At the conclusion of the internship, supervisors will re-evaluate students on professional behaviors, knowledge, and skills.

**Comprehensive Exam**

The goals of the master’s comprehensive exam for EP-ADS are for you to: 1) refine academic writing skills; 2) read, synthesize and evaluate a body of empirical literature on a selected topic; and 3) make connections between theory, research, and practice in a specific content area pertaining to Applied Developmental Science. Students will take a week to read and critically review selected articles and then write a 10-page paper demonstrating their understanding of relevant theories and empirical research related to the topic. Students must pass the comprehensive exam prior to receiving a master’s degree.

Comprehensive examinations are typically administered during the summer term at a time set by the advisor and student. The examination must be taken during the last term of academic study and at least one month prior to the date when all materials must be approved to enable graduation.

Procedures for the comprehensive exams follow:

- **Selecting a date:** Students determine topic and dates with the program coordinator by **May 15, 2019**.
Students will select one of several designated dates to begin their exam. Students will determine the availability of the program coordinator and secondary advisor on the dates desired so that the graduation deadline can be met.

Students should select a week for the exam when no prior commitments have been made. During the week of the comprehensive exam, students should take a break from their internship responsibilities so that they can immerse themselves in reading and writing.

- **Developing a question:** The program coordinator will create one question to address during the examination period. The final version of the question will be presented to the student on the comprehensive exam start date. The program coordinator and secondary advisor or other designated reader will read the exams and provide feedback within two weeks of receiving the exam.

- **Taking the exam:** The exam is completed in a one-week period. Students respond in writing in **10 double spaced pages**. Typically, students cite no more than 15 empirical articles (and several theoretical articles or chapters that provide context for the research). A 10-page paper is fairly short; the faculty does not expect a comprehensive literature review of a broad area of research. Rather, faculty expectations for the document are aligned with what a very competent master’s student can be expected to do in a one-week period of time on a question with limited scope. References should be cited using APA style, 6th Edition. In accordance with the University of Virginia Honor Code, we encourage students to cite their work carefully and use quotations where necessary. The student should submit the exam to their advisors electronically.

- **Assessing the exam:** The completed exam will be evaluated by advisors within two weeks of submission using a rubric which will be provided to you prior to the exam. The advisor and reader assess the student’s performance, and assign one of the following scores based on the rubric:
  - Exemplary/pass,
  - Proficient/pass
  - Developing, anticipated pass after revisions
  - Unacceptable

Students who receive a score of “developing” in any area of the rubric will receive feedback on suggested changes; they should make revisions and resubmit the examination within one week of receiving feedback for re-grading. If the second
Submission is not acceptable, the student may take the examination one additional time with a new question using the same process and timeline as described above. If a student receives an unacceptable rating, the advisor and reader will determine whether the student will retake the exam on the same or a different question. Students who receive two unacceptable ratings will have a meeting with their advisor and will discuss a plan for remediation that will require additional course work prior to initiating a new round of comprehensive exams in the future.

Example comprehensive exam questions from previous years:

- What are best practices for supporting ELL students in math classrooms? In particular, how can Vygotsky’s socio-cultural theoretical framework, alongside math learning theories, inform how teachers use language, cultural experiences, and recommended math practices (such as discourse, applied mathematical problems) to guide math learning for ELL students?

- Review existing empirical evidence and theories describing effective programs that provide services for adolescents and young adults with autism. What are the 3 most critical components of effective programs for individuals with autism as they transition from school to community settings (based on research or theory)? Define each program component and then outline a few indicators for each component that an observer would look for when evaluating an effective program.

- Review, synthesize and evaluate existing literature on after-school programs that promote positive development for children and adolescents. If you were hired as a director of an afterschool program, what key components (3-5) of effective programs would you build in to your new program based on existing evidence?

- Learning and performance, whether it is in the classroom or on the athletic field, are integrally connected to cognitive and social factors related to the learner and the learning environment. Of many psychological constructs that have been shown to impact performance, motivation may be the most important variable to consider if one is to optimize outcomes; however, it may also be the variable most likely to be taken for granted. For this question, select, describe, and synthesize empirical and theoretical literature that examines factors that influence motivation in youth sport settings. Next, evaluate which factors have solid empirical support for youth in sports, and which factors need further investigation. From this review and evaluation of literature, propose at least two practical implications for parents or coaches.
• The ability to manage one’s behaviors in the face of environmental factors is key to learning and performance. Self-regulation is a general term for a variety of processes that enable individuals to work toward their goals by effectively monitoring and managing thoughts, feelings, and actions. For this question, select, describe, and synthesize empirical literature describing what we know about self-regulation in adolescents. Include in your response an overview of at least one specific theory of self-regulation, how one develops self-regulatory strategies, and how/if self-regulatory strategies transfer from one context to another.

• Review studies of the impacts of early childhood education on children’s trajectories in elementary school, with a specific focus on features within classrooms that have positive impacts on children’s trajectories. Describe features of early childhood classrooms that promote positive development. Which of these classroom features are particularly beneficial in preventing referrals for special education during elementary school?

**Fulfillment of Requirements for Graduation**

Students who complete the degree requirements in three semesters will graduate and receive their diplomas in August. Sheilah Sprouse will send an email to students in the spring semester about paperwork that needs to be completed for an August graduation. Part-time students should notify the program coordinator when they have completed course requirements, and submit paperwork for graduation at that time. To assure completion of a degree program, the student must comply with all rules and regulations contained in the UVa graduate record: (http://records.ureg.virginia.edu/index.php).
Appendix A

Research Methods Courses Available from the Curry School of Education
May 16, 2018

Statistics Courses

EDLF 5310 Data Management for Social Science Research
This course introduces strategies for effectively working with large-scale quantitative data for social science research. Topics covered include: data cleaning, recoding and checking; merging data from multiple sources; reshaping data; documenting processes; writing programs and macros to reduce errors; and presenting descriptive data through tables and graphs. Students will utilize Stata, a statistical software package. This course is usually offered in fall semester of every year.

EDLF 5330 Quantitative Methods and Data Analysis I
This introductory statistics course covers descriptive and inferential statistics. Students learn to identify the type of data, select appropriate statistic and graphical methods, analyze data, and interpret the results. Specific methods include the t-test, chi-square test, correlation, simple linear regression, one-way ANOVA, and repeated measures ANOVA. Calculations are done by hand and with statistical software.

EDLF 7300 Foundations of Educational Research
Social and education science research encompasses a varied and challenging set of knowledge and skills to master. The nature of the research problems are complex and multifaceted; addressing these questions requires a diverse and strategic combination of research traditions, designs, and methods, so no single research design course exposes students to all that might be of relevance and interest. This course has two broad goals: (1) to build a foundation on which students can begin to development an understanding of social and education science research designs and methods; and (2) to develop students’ basic competencies in specifying linkages among research questions, designs, methods, evidence, inference, and use. This course is offered every fall semester.

EDLF 7420 Quantitative Methods and Data Analysis II: General Linear Models
The focus of this course is on quantitative methods within a general linear modeling (GLM) framework. Topics include multiple regression with continuous outcomes and predictors that are continuous, dichotomous and multi-category (i.e., analysis of variance (ANOVA) in a regression framework), and combinations of these predictor types. Emphasis will also be placed on moderation and mediation, as well as assumptions underlying the appropriate use of these procedures. Students will develop both a theoretical and applied understanding of the general linear model in the context of continuous outcomes. Prerequisite: EDLF 5330 or equivalent.
EDLF 8310 Generalized Linear Models
This course provides students with advanced quantitative skills in applying ordinary least squares (OLS) methods, as well as introduces students to the generalized linear model (GLM) for cases when variables have specific non-normal conditional distributions. The course will address common data analytic challenges that arise in real world settings, such as when outcomes are not normally distributed, when the independent and dependent variables have nonlinear relationships, and when outliers or discrepant data are present. We also examine statistical methods for addressing missing covariate data and bootstrapping methods for inference tests. Prerequisite: EDLF 7420 or equivalent.

EDLF 8315 Causal Inference in Educational Policy Research
An advanced methods course on quasi-experimental statistical techniques for generating unbiased effect estimates when random assignment is not feasible. Underlying theories, identifying assumptions, and applications are presented for techniques drawn from a variety of disciplines including economics, sociology, and psychology including regression discontinuity, instrumental variables, difference-in-difference, matching, and fixed effects. This course is usually offered in spring semester of every year. Prerequisite: EDLF 7420 or equivalent.

EDLF 5500 Field Experiments
This course has three purposes. The first is to introduce students to recent methodological advances in the design and analysis of field experiments, particularly in school settings. The second is for students to read and discuss well-known field experiments that have important implications for policy, and/or our understanding of science. The third is to demonstrate that although the course is about field experiments, many of the issues that are addressed extend easily to the design and analysis of observational studies. Students will learn to use Stata for the analysis of field experiments. Prerequisite: EDLF 7420 or equivalent. This course is usually offered in spring semester of odd-numbered years.

EDLF 8360 Multilevel Modeling in Education Research
This course is designed to familiarize students with the basics of multilevel modeling. Topics include random effects ANOVA models, means-as-outcomes models, random coefficients models, intercepts- and slopes-as-outcomes models, contextual models, random effects ANCOVA models, linear growth models, nonlinear growth models and cross-classified models. Prerequisite: EDLF 7420 or equivalent. This course is usually offered in fall semester of odd-numbered years.

Additional statistics courses include EDLF 8361 Structural Equation Modeling features statistical and measurement models. Details are listed under measurement courses.

(Continued on next page)
Measurement Courses

EDLF 7180 Tests and Measurements
This introductory course concentrates on the evaluation and interpretation of assessment tools. Topics include reliability and validity; social and ethical considerations of testing; summarizing and interpreting measurements; and the use of standardized tests, rating scales, and observational scales. This course is usually offered in fall semester of every year.

EDLF 8340 Measurement Theory
Fundamentals of item response theory and generalizability theory. Topics include the Rasch, two-parameter logistic, and three parameter logistic models for binary items and the partial credit, rating scale, and generalized partial credit models for polytomous items. Additional topics include scale linking and score equating, and multidimensional item response theory. Generalizability theory topics include estimation of variance components for generalizability studies, and estimation of reliability coefficients for decision studies. Application of these methods to educational and psychological testing and the use of statistical software is emphasized. Students will learn to use statistical software such as R, jMetrik, and flexMIRT. Prerequisites: EDLF 7180 and EDLF 7420 or instructor permission. This course is usually offered in spring semester of every year.

EDLF 8350 Stat IV Multivariate Statistics
Presents the theory and rationale of selected multivariate statistical techniques. Topics include multivariate analysis of variance, canonical correlation, discriminant analysis, exploratory factor analysis, and confirmatory factor analysis. Emphasizes computer-assisted analysis and the application of appropriate statistical methods to research data. Prerequisite: EDLF 7420 or instructor permission. This course is usually offered in spring semester of every year.

EDLF 8361 Structural Equation Modeling
The major topics include exploratory/confirmatory factor analysis models, a variety of structural equation models, growth curve models, and multi-sample modeling analysis. The major focus of the course is both on the conceptual understanding of latent variable modeling and on practical application of these models in research and measurement. Students will work with data sets and computer programs to gain practical research experience. Prerequisite: EDLF 7420 or equivalent.

(Continued on next page)
Qualitative and Program Evaluation Courses

EDLF 7060 Theoretical Perspectives on Educational Policy
This course introduces students to the use of theory in the educational research process by examining interpretive and critical theoretical approaches in educational policy research. It examines current theories including micro-macro theories, critical race theories, feminist and postmodern theories and their applications in research methods such as critical discourse analysis, critical ethnography, etc., as they pertain to policy research, policy analysis, and policy evaluation.

EDLF 7404 Qualitative Analysis
This class serves as an introduction to the central concepts of qualitative methods in research and evaluation. Primary emphasis is on the development of skills required to conduct qualitative research, with a focus on research design, specific methods of inquiry, and approaches to analysis. The philosophy and epistemology of qualitative approaches are also discussed. Empirical readings provide examples of qualitative research within education and related fields. This course is usually offered fall and spring semester of every year.

EDLF 7402 Introduction to Program Evaluation
An overview of current program evaluation approaches, this class is designed to provide an overview of the theories behind and approaches to evaluation as well as to begin to train students in evaluation design and methods. Theoretical, methodological, and empirical readings emphasize the terminology of educational evaluation and the variety of theoretical and design approaches to evaluation. Consideration is also given to the application of evaluation approaches and designs to non-educational settings. This course is usually offered in fall of odd-numbered years.

EDLF 7410 Mixed Methods Research Design
This course provides an introduction to mixed methods in social science/educational research. We will consider the types of questions that mixed methods can answer and discuss the benefits/challenges of mixed methods research. We will cover research design, sampling, and analysis, including reading exemplars of mixed methods research. Students will apply the theoretical/methodological tenets learned by designing their own mixed methods study. This course is usually offered in fall semester of even-numbered years.

EDLF 8400 Program Evaluation Design
Explores problems of designing, conducting, and reporting evaluation research studies. Time is spent examining philosophies of science that underlie evaluation studies; conceptualizing a total evaluation study; planning for the use of time and resources in conducting an evaluation study; assembling the evidence for or against a particular proposition; analyzing costs; and learning how to avoid common pitfalls in working with clients and program participants to design and conduct an evaluation study. This course is usually offered in fall semester of odd-numbered years.

EDLF 8440 Advanced Qualitative Analysis
Advanced course in methods and practices of qualitative research. Students determine their own philosophy of inquiry and become increasingly proficient in the application of qualitative methods. Assumes an introductory course in qualitative methods. Focuses on research design and
proposal development, data collection and analysis techniques, and presentation of findings. The course is field-based and guides students through the complete qualitative research cycle. This course is usually offered in spring semester of every year.

Research Methods Course Sequence Guide

The next page shows a course sequence guide. It will help you understand the recommended sequence of courses. For example, if your aim is to take a course in structural equation modeling, find that course on the chart and identify the course prerequisites. Solid arrows in the chart represent required course prerequisites, and dashed arrows indicate recommended prerequisites.

(Continued on next page)
Appendix B

Internship Contract - EDLF 8998 Masters Internship
Educational Psychology: Applied Developmental Science Program

Intern Placement and Supervisor:

Intern Name:

Internship Learning and Professional Development Outcomes:
What learning outcomes do you hope to fulfill during this experience? Please list at least 3 major outcomes (e.g., professional competency, new knowledge related to an area of interest, research and assessment proficiencies, etc.).

Examples of Outcomes for Various Internships:

**Know and Understand...** (Facts/ information and/or big ideas about education, development or research) (e.g. know key domains of teacher-child interaction, and specific indicators that demonstrate teacher quality; understand key components of effective service-learning programs; understand complexities of developing effective teacher PD that can improve classroom processes)

**Be Able to Do...** (Skills and behaviors related to working in educational settings or on educational research projects) (e.g. synthesize relevant research related to childhood obesity and create and enact a program in the community that addresses obesity; use an observation protocol for measuring effective mentoring programs to code mentoring sessions at a local school; develop a reliable tool for measuring teacher skills in detecting teacher-child interactions)

By the end of the internship experience, the student will:
**Internship Tasks and Responsibilities**

What tasks and responsibilities will be assigned to the intern to complete? Please include approximate deadlines and dates of completion for each task.

<table>
<thead>
<tr>
<th>Task</th>
<th>Deadline</th>
<th>Date Completed</th>
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<td>8.</td>
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</table>
Financial Arrangements

The student selected for the internship will be employed on a part-time basis for a 3-6-month period. When possible, interns greatly appreciate being compensated for their work, and some may be eligible to be paid through work-study (check with program coordinator for more information). However, monetary compensation is not required and most interns will work without financial compensation if the work is engaging and related to their future career goals.

_____ The intern will receive course credit AND be provided with a wage of $_________ per hour OR $______________ total stipend when all work is completed.

_____ The intern will receive course credit, but will not be paid.

Intern: _________________________________________________________

Date: ____________________________

Supervisor: _____________________________________________________

Date: ____________________________
# Appendix C

## Internship Weekly Log

(This is an example – feel free to use your own template)

<table>
<thead>
<tr>
<th>Week</th>
<th>Hours Worked</th>
<th>Tasks Completed</th>
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</table>
## Appendix D

### End of Semester Evaluation for Student Interns in EP-ADS Master’s Program

Semester and year (e.g., Fall 2019):

Your Name:

Organization or Research Project:

Intern's Name:

Please rate your intern's performance on each of the following factors:
(1 = Poor, 3 = Average, 5 = Excellent)

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<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>NA</th>
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</thead>
<tbody>
<tr>
<td>Professional conduct and attitude</td>
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<td>Timeliness in completing work</td>
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<tr>
<td>Autonomy, initiative, and proactive performance</td>
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<td>Openness to professional feedback and constructive criticism</td>
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<td>Implementation of professional feedback and constructive criticism</td>
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<td>Verbal communication skills</td>
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<td>Written communication skills</td>
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<td>Collaborative skills</td>
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<td>Analytic skills</td>
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<td>Knowledge and expertise about educational settings</td>
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<td>Knowledge and expertise about development</td>
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</table>
Please describe particular areas of strength for the student intern (i.e., What are they doing well?).

Please provide constructive feedback about any areas that need improvement in future work (i.e., What could they do better?).

What skill(s) or competency(ies) would support this student’s continued professional improvement? (i.e., How can they improve?)