



The University of Georgia

*Department of Human Development and Family Science*®

## **Quantitative Methods in Family Science (QMFS) Certificate Program**

The QMFS certificate program is designed to provide advanced graduate education that prepares doctoral students for employment in top-tier quantitative social and behavioral science research-intensive positions by providing students with cutting edge statistical and methodological knowledge and skills relevant to the study of families and individuals across the life course.

Graduate students who complete this certificate will be able to conduct research using cutting edge quantitative techniques such as growth curve modeling, latent-trajectory class analysis (growth mixture modeling) multilevel modeling, and dyadic data analysis. Increasingly, there is a niche market for scholars with these skills in academic research positions in the social and behavioral sciences at top tier research and academic institutions. In particular, Departments of Human Development and Family Science are hiring new faculty with these analytical skills, and preferably new faculty who also have their degrees in human development and family science. Our department will offer all of the courses in a cohesive and sequential manner that is specific to family science yet applicable across a number of disciplines.

Students must complete the following courses:

**HDFS: 6800: Research Methods** – In this course, students will gain an understanding of the foundations of research including the ethical and professional responsibilities of the family researcher and will learn about research strategies relevant to the study of the family. Further, the course will address data collection and interpretation processes. The capstone project in this class is a research proposal with a topic related to family studies, human development or marriage and family therapy. (3 credit hours)

**HDFS: 6900: Seminar in Quantitative Analysis I** - In this, class students will learn basic statistical concepts and procedures (e.g. central tendency, statistical significance, standard deviation, standard error, correlations, t-tests, cross tabulations, Analysis of Variance, and regression) and how to use the statistical program SPSS. (3 credit hours, offered every fall)

Non-HDFS graduate students may take courses equivalent to HDFS 6800 and 6900 in their home department or another department and those courses can serve as substitutions to HDFS 6800 and 6900. Acceptable courses equivalent to HDFS 6900 include STAT 6315 and 6220 as well as BIOS 7020. Additional course equivalence will be determined by the program director, Dr. K.A.S. Wickrama, in consultation with the steering committee when necessary.

**HDFS 8800: Quantitative Methodology in Child and Family Development.** In this class, students will gain an understanding of issues associated with longitudinal data and analysis of change, methods that are essential to research on human development and research on family processes over time. (3 credit hours, offered in spring)

**HDFS 8730: Seminar in Quantitative Analysis for Family Science II** – In this class, students will learn techniques such as multiple regression, factor analysis, logistic regression and Structural Equation Modeling. Specifically, they will learn the appropriate use of these techniques as they apply to the study of family across the life course. They will also learn to use statistical packages such as Mplus. (3 credit hours, offered every spring)

**HDFS 8840: Seminar in Advanced Quantitative Analysis for Family Science III** (3 hours, offered every other fall in odd years)

The content for this seminar will be:

- **Multilevel Modeling for Family Sciences:** software packages- The statistical software packages that will be used are HLM, SAS and Mplus.
- **Growth Curve Analysis for Family Sciences:** software packages -SAS, Mplus and AMOS.

**HDFS 8850: Seminar in Advanced Quantitative Analysis for Family Science IV** (3 hours, offered every other fall in even years):

The content for this seminar will be:

- **Dyadic Data Analysis for Family Sciences:** software packages – SAS, Mplus and AMOS and Mplus.
- **Categorical Data Analysis for Family Sciences** - SPSS, ASA and Mplus

In order to be eligible to enroll in the program, an applicant must be a currently enrolled degree seeking student in good standing in a doctoral program at UGA. All applicants must seek approval from their major professor must submit a signed form (see below) to that effect. Applicants will be reviewed by the steering committee. Applicants denied admission may reapply as early as the next semester and/or appeal to the steering committee. Retention in the program is dependent upon earning a minimum B grade in all subsequent courses included in the Program Certificate.

Quantitative Methodology in Family Science (QMFS) Certificate Program  
Application form

Admission into the QMFS Certificate Program requires the approval of the Program's steering committee. Please complete the form and submit it, along with the necessary signatures to the Program Director, Dr. K.A.S. Wickrama to [wickrama@uga.edu](mailto:wickrama@uga.edu).

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Email address: \_\_\_\_\_

Are you a currently enrolled graduate student in a doctoral program at UGA? \_\_\_\_\_ YES \_\_\_\_\_ NO

Which Department? \_\_\_\_\_

Major Professor: \_\_\_\_\_

Expected date of graduation: \_\_\_\_\_

Have you completed HDFS 6800: Research Methods and HDFS 6900: Quantitative Analysis I or graduate-level courses with similar content? \_\_\_\_\_ YES \_\_\_\_\_ NO

What grade did you earn in the Research Methods Course? \_\_\_\_\_ When did you take the class? \_\_\_\_\_

What grade did you earn in the Quantitative Analysis course? \_\_\_\_\_ When did you take the class? \_\_\_\_\_

If you completed these courses in a department other than HDFS, please provide the course name and number and department in which you took the class(es):

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In addition to HDFS 6800 and 6900, the QMFS Certificate Program requires completing HDFS the courses below. Retention in the program is dependent upon earning a minimum B grade in all subsequent courses included in the Program Certificate.

HDFS 8800: Quantitative Methodology in Child and Family Development

HDFS 8730: Seminar in Quantitative Analysis for Family Science II

HDFS 8840: Seminar in Advanced Quantitative Analysis for Family Science III

HDFS 8850: Seminar in Advanced Quantitative Analysis for Family Science IV

\_\_\_\_\_  
Applicant's signature and date

\_\_\_\_\_  
Major Professor's signature and date

\_\_\_\_\_  
Approved by Program Director, Dr. Wickrama

\_\_\_\_\_  
Date