

# Graduate Certificate in Quantitative Research

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The Quantitative Research Certificate (QRC) is designed to prepare researchers and scholars to be users and critical consumers of quantitative research. Certificate holders are trained to conduct rigorous, scientific quantitative research.

Students completing the QRC (depending on the chosen track) will be able to:

- Design effective experimental and quasi-experimental studies
- Manage and use large scale datasets
- Analyze various types of datasets (e.g., nested data, longitudinal data) with the appropriate modeling techniques
- Apply advanced statistical methods (e.g., structural equation modeling, multilevel modeling) in their own research
- Critically review studies that make use of a diverse set of statistical methods
- Conduct measurement-related studies using techniques such as factor analysis or item response theory

## Requirements

Earning the Quantitative Research Certificate (QRC) requires students to complete 18 hours of approved coursework with a grade of at least a B in all courses. A plan of study must be approved by the QRC committee and may include the following courses:

ESC_PS 7170	Introduction to Applied Statistics (prerequisite coursework not counted towards the 18 hour completion)	3
ESC_PS 8082	Foundations of Educational and Psychological Measurement	3
ESC_PS 8850	Quantitative Foundations in Educational Research	3
ESC_PS 9660	Generalized Linear Modeling	3
ESC_PS 9710 or ESC_PS 9720	Structural Equation Modeling Multilevel Modeling	3
Elective courses (see QRC Initial Plan of Study form)		6

For additional information including the Initial Plan of Study, visit:  
<https://education.missouri.edu/degrees-programs/certificates-minors/quantitative-research/>

## Contact

For more information about the quantitative research certificate, email [quantcertificate@missouri.edu](mailto:quantcertificate@missouri.edu).