

MEASUREMENT AND QUANTITATIVE METHODOLOGY CERTIFICATE

This program offers a curriculum for training students to have expertise in applying measurement and quantitative techniques in a research setting. Students will be able to choose an emphasis of measurement or quantitative methods and will receive a certificate upon completion of the requirements to validate their skills and efforts. This graduate-level program will prepare students for a variety of career opportunities that require training in measurement and/or quantitative techniques.

This program accommodates students with varying levels of quantitative background, thus allowing them to join the program at the level that is appropriate for them. It is particularly beneficial for current students at Loyola who have taken basic quantitative courses and want to enhance their skills and highlight their expertise in contributing to methodological aspects of research when applying for jobs.

Related Programs Certificate

- Organizational Evaluation Certificate (<https://catalog.luc.edu/graduate-professional/education/research-methodology/organizational-evaluation-certificate/>)

Curriculum

This certificate program is a five-course (15 credit hours) program that leads to a certificate in Measurement & Quantitative Methodology.

Code	Title	Hours
Core Curriculum		
The core courses include 2-3 courses, depending on the student's research background. Students who have taken courses in quantitative research can waive/transfer in a maximum of six credits to cover the core courses of this certificate program and start with elective courses. The waived courses can only be the core courses.		
RMTD 400	Introduction to Research Methodology	3
RMTD 404	Introduction to Educational Statistics	3
RMTD 421	Educational Research II: Building a Body of Evidence Quantitative Method	3

Elective Courses

After completing the core courses, students will take elective courses based on their needs and interests. They can choose either measurement or quantitative methods oriented courses. Students who have taken some of the elective courses will have to choose different elective courses to fulfill the requirements of the certificate program.

Select 2-3 courses: ¹ 6-9

Measurement Oriented

- RMTD 430 Psychological Measurement
- RMTD 530 Seminar in Tests & Measurements

Quantitative Methods

Choose one of the following:

- RMTD 403 Survey Research
- RMTD 483 Multivariate Statistics

RMTD 484	Hierarchical Linear Models
RMTD 488	Meta-Analysis
STAT 388	Topics ²
Total Hours	15

¹ Students who took two core courses will choose three elective courses; students who took three core courses will have to take two elective courses.

² This course is an option for pre-Master's students admitted to the program.

Suggested Sequence of Courses

The below sequence of courses is meant to be used as a suggested path for completing coursework. An individual student's completion of requirements depends on course offerings in a given term as well as the start term for a major or graduate study. Students should consult their advisor for assistance with course selection.

Course	Title	Hours
Sequence 1		
Fall		
RMTD 400	Introduction to Research Methodology	3
RMTD 404	Introduction to Educational Statistics	3
RMTD 488	Meta-Analysis	3
Hours		9
Spring		
RMTD 421	Educational Research II: Building a Body of Evidence Quantitative Method	3
RMTD 483	Multivariate Statistics	3
Hours		6
Total Hours		15

Continuous Enrollments

Students in endorsement only programs are required to maintain the status of continuous enrollment during their program of studies. This means that during each semester of each academic year (excluding Summer Sessions), each student must enroll in at least one course. A formal leave of absence may be granted upon request and the approval of the School of Education's Associate Dean of Student Academic Services.

Graduate & Professional Standards and Regulations

Students in graduate and professional programs can find their Academic Policies in Graduate and Professional Academic Standards and Regulations (<https://catalog.luc.edu/academic-standards-regulations/graduate-professional/>) under their school. Any additional University Policies supersede school policies.

Learning Outcomes

Upon the completion of the certificate, students will be prepared to:

- Have theoretical knowledge of measurement/psychometric theories and quantitative methods.
- Understand the assumptions of different quantitative techniques and learn to handle the violations of these assumptions.

- Select and apply appropriate measurement and quantitative methods to answer research questions.
- Use computer software to implement a wide range of quantitative analyses.
- Interpret statistical evidence appropriately.