

# ADVANCED QUANTITATIVE METHODOLOGIES, GRADUATE CERTIFICATE

**More Information:** <https://weatherhead.case.edu/degrees/certificates/quantitative-methodologies/>

**Credential:** Graduate Certificate

**Field of Study:** Advanced Quantitative Methodologies

## Program Overview

Weatherhead School of Management's Graduate Certificate in Advanced Quantitative Methodologies (AQM) offers a unique opportunity for current graduate students at Case Western Reserve University to specialize in advanced analytics for applied research and study.

Quantitative methodologies are techniques for systematic empirical investigation of behavioral phenomena using statistical, mathematical, numerical or computational approaches. These techniques may operate on structured numerical or unstructured text data.

Skills in quantitative methodologies prepare graduate students for conducting and publishing scholarly research while fostering a learning environment that motivates original research across many social science disciplines with a behavioral focus.

## Program Requirements

To qualify for the Advanced Quantitative Methodologies certificate, students must complete three requirements:

- Successfully complete five, 3 credit hour approved quantitative methods courses offered on the Case Western Reserve campus, for a total of 15 credit hours.
- Obtain an average grade point of 3.5 or higher in the approved courses for this certificate.
- Take *at least* one course each from approved Sets A and B.

## Approved Courses

There are three sets of courses available toward this certificate. Students must take one course each from Sets A and B; otherwise, any combination of courses from Sets A, B, or C qualify for the certificate.

### Set A: Weatherhead School of Management Courses

Code	Title	Credit Hours
MGMT 571	Measurement Theory and Method	3
MGMT 573	Applied Multivariate Data Analysis	3
EDMP 643	Measuring Business Behaviors and Structures	3
EDMP 646	Advanced Analytical Methods for Generalizing Research <sup>a</sup>	3
EDMP 649	Experimental Design and Analysis <sup>a</sup>	3

- <sup>a</sup> These courses are restricted to students enrolled in the Management, PhD program at Weatherhead School of Management.

### Set B: Frances Payne Bolton School of Nursing Courses

Code	Title	Credit Hours
NURS 630	Advanced Statistics: Linear Models	3
NURS 631	Advanced Statistics: Multivariate Analysis	3
NURS 632	Advanced Statistics: Structural Equation Modeling	3

### Set C: Courses at other Case Western Reserve schools

Code	Title	Credit Hours
SASS 618	Measurement Issues in Quantitative Research	3
PQHS 435	Survival Data Analysis	3
PQHS 500	Design and Analysis of Observational Studies	3
SOCI 525	Multilevel Modeling	3