

# Advanced Quantitative Methods in Psychology (Certificate)

## Curriculum

Below are the course requirements needed to fulfill the Advanced Certificate in Quantitative Methods in Psychology (minimum of 15 credits). You must receive a grade of B or above for every certificate course.

**1. Must complete each of the following courses (9 credits)**

PSYC 550 Quantitative and Statistical Methods  
PSYC 578 Psychometrics  
PSYC 739 Multivariate Statistics

**2. Must complete one of the following advanced quantitative methods courses (3 credits)**

PSYC 740 Theory Building and Model Testing (SEM)  
PSYC 741 Hierarchical Linear Modeling

**3. Must complete one data science/programming course from the following list (3-4 credits)**

Courses outside the Psychology Department require the permission of those Departments or Instructors. Any substitutions must be approved by the Graduate Program Coordinator in advance.

PSYC 546 Data Science for Social Scientists  
SOCL 556 Data Analysis  
CSIT 505 Python Programming  
CSIT 506 Data Structures with Python  
APLN 550 Computational Linguistics  
APLN 563 Quantitative Linguistics

**4. Must perform one practical statistical assignment from the following list.**

Teach an undergraduate statistics course (Psyc 220)  
Complete an empirical thesis (e.g., a Master's Thesis, a Dissertation, an Independent Study)