

EDUCATIONAL STATISTICS AND RESEARCH METHODS GRADUATE CERTIFICATE (EDST)

The University of Arkansas Graduate Certificate program in educational statistics and research methods is designed to equip graduates with the skills necessary for conducting applied research in social science, behavioral science, and education-related fields. Since its inception in 2021, the revised EDST certificate (15 credit hours) offers students greater flexibility in completing the program, allowing them to select from various concentrations.

Typically, students complete three core ESRM courses and then choose two elective courses from specialized areas such as psychometric methods (e.g., measurement and item response theory), quantitative methods (e.g., hierarchical linear modeling, structural equations modeling, and Bayesian methods), and qualitative methods (e.g., qualitative, and advanced qualitative research methods). The primary objective of the certificate is to provide students with foundational research methods training complemented by advanced methodological courses that prepare them for advanced research in their respective fields. Consequently, the EDST certificate program's primary learning goals revolve around identifying quantitative and qualitative procedures, data analysis, research study critique, and effective collaboration with peers.

ASSESSMENT CRITERIA:

To evaluate the effectiveness of the program, the following competencies are assessed in students:

1. Identification of appropriate research designs for research questions.
2. Conducting statistical analyses for research hypotheses.
3. Understanding the strengths, weaknesses, and applicability of different statistical procedures.
4. Critiquing statistical analyses completed by others.
5. Submission of research proposals or manuscripts to professional conferences and journals.
6. Delivery of oral research presentations.

EFFECTIVENESS EVALUATION:

To assess the effectiveness of student training in the EDST graduate certificate program, data from research projects, professional conference presentations, journal articles, grant submissions, and academic or professional awards were aggregated for analysis this year.

ASSESSMENT INFORMATION

COURSE-BASED DATA:

The quality of course-based research projects and components of take-home exams provided data for the learning outcomes of identifying appropriate designs, conducting statistical analyses, and identifying strengths, weaknesses, and appropriateness of statistical procedures. Student projects and take-home examinations have been averaged (i.e., their final grades) for coursework and were rated a 4 if they earned a mastery level of 90% or higher on their project, 3 for 80-89%, 2 for 70-79%, 1 for 60-69%, and a 0 for less than 60%.

According to the university record system, 12 students were enrolled in the certificate program during the 2023-2024 academic year, nine of them currently active and three having completed the program.

Status	<i>N</i>
Active	9
Complete	3