

Education Measurement Graduate Certificate 2016-2017

The University of Arkansas Graduate Certificate program in educational measurement prepares graduates for designing and evaluating measurement instruments in social science, behavioral science, and education-related fields. The primary learning goals of the EDME graduate certificate program are centered around the development of measurement tools such as psychological inventories, attitudinal surveys, and achievement tests, and on the critiquing of instruments currently in use.

An assessment of the effectiveness of the program would include students' ability to:

1. Develop and compare operational definitions of constructs being measured by instruments
2. Create appropriate and effective items and evaluate items created by others
3. Assess reliability and validity of scales
4. Develop, administer and evaluate an instrument
5. Evaluate the appropriateness of an instrument for varying populations and purposes

In order to assess the effectiveness of the student training in the EDME graduate certificate program this year, we aggregated student data from course projects, research / scholarship activities, academic or professional awards, and degree completion.

Assessment Information

Course-Based Data:

The quality of course-based projects provided data for the learning outcomes of mastering instrument development and research-based skills required for instrument evaluations. These projects included the development of measurement instruments, creating and administering surveys, mastering statistical procedures, and developing and implementing evaluation plans. Students 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%. Student project performance is provided for the courses completed for the certificate in the table below. Students currently in the certificate program are completing the research-related project activities successfully.

Program of Study		
<u>ESRM 5653</u>	Educational Assessment (Irregular)	3
<u>ESRM 6403</u>	Educational Statistics and Data Processing (Sp, Su, Fa)	3
<u>ESRM 6653</u>	Measurement and Evaluation (Fa)	3
<u>ESRM 6753</u>	Item Response Theory	3
Select one of the following:		3

<u>ESRM 6613</u>	Evaluation of Policies, Programs, and Projects (Fa)	
<u>ESRM 6633</u>	Survey Research Methods	
Select one of the following:		3
<u>ESRM 6413</u>	Experimental Design in Education (Sp)	
<u>ESRM 6423</u>	Multiple Regression Techniques for Education (Sp)	
Total Hours		18

Program Evaluation Research-Based Skills

Course Project Performance	Average	Minimum	Maximum
Measurement Instrument and Survey Development	--	--	--
Statistical Analyses and Research Design	--	--	--
Psychometric Procedures	--	--	--

We did not have students in the certificate program this year to measure research project and exam performance. We had 19 students in Measurement and Evaluation course (the primary feeder course to this certificate) and 9 students (7 majors and 2 non-majors) in Item Response Theory (the most advanced and specialized course) which are the two main courses for the Educational Measurement Graduate Certificate. A discussion of the new complication to enrollment and tracking and our plan to address it is presented in the Planned Changes section at the end of the report.

Active Research:

We did not have presentations, articles, or grants reported by students active in the Educational Measurement certificate program this year.

Awards and Degree Completion:

No known awards for these students.

Changes Planned Based on Assessment Findings

There was no known enrollment in the Educational Measurement Graduate certificate this year. We have had a new complication with the requirement of continuous enrollment in completing graduate certificate courses that we are investigating with the graduate school. Many of our previous graduate certificate students have been Ph.D. students in other programs around campus who complete the certificate to enhance their doctoral training and make themselves more competitive for employment. As such, these students typically integrate their certificate coursework into their Ph.D. program of study and do not necessarily take certificate courses every semester. We are unsure if any previously enrolled certificate students were dropped this year due to inconsistent course completion for the certificate due to their doctoral coursework

requirements. This is something we are investigating, along with discussions with the Graduate School to address the issue.

We also need to increase our efforts in recruitment. We had 7 majors take the most advanced and specialized course for the certificate (Item Response Theory) and 2 non-majors complete in the spring 2017. Usually these students are the candidates who enroll in the certificate program, and we will follow up with these students find out if they are waiting to apply when all of their courses have been completed (so that they don't have to apply and pay multiple times due to the continuous enrollment requirement). We will also make a targeted effort to recruit additional students in 2017-2018 from the feeder course (Measurement and Evaluation).