What is the Graduate Certificate Program in Large Scale Education Assessment?

The Graduate Certificate Program (GCP) in Large Scale Education Assessment is a program offered by the National Center for Education Statistics (NCES) Assessment Division and the University of Maryland (UM) Department of Education, Measurement, Statistics and Evaluation, dedicated to the field of education assessment. This field is rapidly developing as knowledge of the technical aspects of designing, developing, and implementing large scale assessments becomes more important in states.

**Mission.** The mission of the GCP is to build each state’s capacity for appropriately using and interpreting large scale assessment data. Our main goal is to nurture future leadership in the field of education assessment. To meet this broader goal, the GCP is open to personnel of state and local education agencies, as well as graduate students.

**Philosophy.** The GCP uses in-residence and distance-learning methods to expose students to the key concepts and practices in the field of large scale education assessment. Combining these modes of instruction provides students with a variety of learning experiences. Students receive both traditional and non-traditional (web-based, self-paced) opportunities to complete the program. The GCP is a unique educational opportunity, offering the skill of national experts in the fields of measurement, evaluation, statistics, assessment, survey design, and other relevant disciplines. The presence of faculty with such diverse disciplinary backgrounds allows the GCP to provide effective and innovative instruction in both the technical and non-technical aspects in the field of education assessment.

**Program Structure.** Prior to their acceptance into the program, students should possess a basic understanding of descriptive statistics, hypothesis testing, analysis of variance, and multiple regression. In addition, accepted students are expected to be familiar with basic statistical software packages (e.g., SPSS, SAS). Once in the program, students receive instruction in two segments: one conducted in-residence and one using distance-learning features. The combination of these two segments sets the framework for up to a year of instruction and interaction among students and faculty.

**In-residence.** Each program year, two in-residence sessions are offered – an Early Summer Session (usually beginning in early June) and a Late Summer Session (usually beginning in late July). Students apply to only one of the two in-residence sessions. The GCP provides students with hands-on coursework in a traditional classroom setting on the University of Maryland-College Park campus for the first three weeks of instruction. Students and instructors interact directly, and students have opportunities to work individually or in groups on certain assignments. Class sizes are kept small in order to maximize student-instructor interface. Each day, intensive labs conducted by University of Maryland staff supplement the classroom instruction. Students have access to laptop computers with all of the software needed to complete course assignments. Although the GCP is a rigorous
learning experience, students enjoy the challenge of the depth and breadth of coursework!

**Distance-learning.** During this portion of the GCP, students log on to a private, secure web site to review course materials in the core course components to which they were introduced during the initial in-residence phase of the program. The distance-learning portion of the program also makes it possible for students to receive additional instruction in these courses while they are away from the University of Maryland campus. Because online courses progress independently, students are able to log on to the GCP web site and participate in course activities at times convenient to them. Students are provided with eLearning capabilities such as discussion boards, chats, and other possibilities for collaborative projects, as well as independent research opportunities and self-paced education modules. The web site enables students to author and submit assignments and reports electronically and to receive electronic feedback from instructors.

**Course Descriptions.** To earn the graduate certificate, students must complete five (5) courses (four designed to be completed by the end of the Fall semester and a practicum/internship, which may extend into the Spring), totaling 15 credit hours. Both the in-residence and distance-learning portions are included in the course descriptions below. For all courses, students will be expected to read a variety of articles and participate in regular discussion board threads regarding these issues. Students will also be expected to participate in periodic online chats.

**EDMS 622 – Theory and Practice of Standardized Testing.** In this course, students will learn about the history, theory, and key concepts of education assessments. This course covers the fundamentals of measurement foundations and general information about item response theory (IRT) and assessment development processes.

**EDMS 722 – Structural Modeling.** Students will learn about multi-level modeling analyses and will be introduced to common statistical software packages to use, analyze, and understand assessment data of complex design.

**EDMS 747 – Design of Program Evaluations.** This course covers the practical aspects of working in state assessment and offers coursework in the programmatic issues of education assessment.

**EDMS 780 – Research Methods and Materials.** In this course, students will learn about the methods and materials necessary to develop and implement a large scale assessment. More advanced IRT concepts are offered here. Principles of survey design, item development and analysis, and sampling are highlighted.

**EDMS 889 – Practicum in Measurement and Statistics.** This is an applied course in research design and statistical analysis. Students are expected to explore a relevant assessment question or problem and propose a feasible way to solve it using the
skills that they have learned through the other courses in this program. The outcome of this course is a "mini-thesis." Completion of this course will demonstrate skills in conceptualizing research issues, conducting proper statistical analysis, presenting and interpreting analysis results, and discussing findings and implications -- a project that demonstrates and integrates the various skills and knowledge that are required for the certificate program.

**Tuition/Financial Aid.** All students receive the in-state tuition rate per credit hour. Financial assistance is available for one qualifying state or local education agency employee per state. In addition, graduate assistantships are also available. Graduate students interested in consideration for financial aid must note this request on their application for admission to the program. For more information on tuition and financial aid, visit the Graduate Certificate Program web site at [www.gcponline.org](http://www.gcponline.org).

**Location, Resources & Housing.** Students of the Graduate Certificate Program will be housed at the Inn and Conference Center on the campus of the University of Maryland. Classes will also be held in this facility. Students will be provided with two meal tickets (for lunch and dinner). Financial assistance and graduate assistantships includes housing and meals.

**Faculty.** The GCP faculty consists of staff from the University of Maryland, College Park, and the NCES Assessment Division, supplemented by national assessment and measurement specialists. Past faculty have included experts from the U.S. Department of Education, the Educational Testing Service (ETS), Westat, Inc., the American Institutes for Research, and other research and statistical agencies.

**Admissions.** Students must have a Master's degree or higher (or 3 years of relevant work experience) in education, survey methodology, statistics and measurement, education psychology, or a related field. Also, students must show evidence through transcripts of having completed 6 credit hours or more in graduate-level statistics courses. Students may be asked to provide course syllabi and/or textbook titles for these courses. Applications for the GCP must be received no later than March 14 for entry in Early Summer Session; and by May 2 for entry in the Late Summer Session. Application materials are available online at [www.gcponline.org](http://www.gcponline.org) or [http://www.education.umd.edu/EDMS/Certificate/Cover.html](http://www.education.umd.edu/EDMS/Certificate/Cover.html).