Assessment Practices in Undergraduate Mathematics

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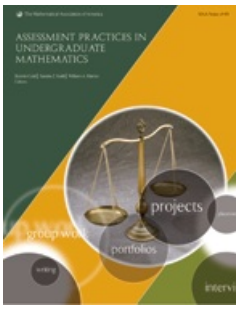

Google Preview

Assessment Practices in Undergraduate Mathematics , a collection of assessment practices that have been tried by more than 100 contributors in mathematics at a wide variety of schools, attempts to offer mathematics teachers suggestions from an insider's perspective. The book is not formulaic: no author claims to have "the answer," and many of the projects reported on are still in progress. On the other hand, the articles provide a wealth of suggestions from creative, energetic, and concerned individuals who have had the courage to experiment and to critique their own efforts. Without doubt, the reader will find in these pages encouragement to experiment on his or her own, to find assessment methods which are personally meaningful. Techniques offered in this book range from brief ten-minute classroom exercises and examples of alternative testing, group work and assignments, to examples of how departments may measure the placement of students into courses, the effectiveness of the major, and the quantitative literacy of their graduating students. Teachers beleaguered by formal end-of-term teacher evaluation forms, will find a variety of alternative assessment techniques that provide ways in which the quality of teaching can be better examined.

The MAA also offers a companion volume, **Supporting Assessment in Undergraduate Mathematics,** as a free download. The SAUM volume contains 26 case studies offering lessons learned during a four year NSF-sponsored MAA project designed to support mathematicians and mathematics departments in the increasingly important challenge of assessing student learning. Three introductory essays set assessment in broader academic and national contexts: an appendix contains the 2005 revision of the CUPM Guidelines for Assessment of Student Learning.

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Supporting Assessment in Undergraduate Mathematics

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Outcomes assessment in the B.S. statistics program at Iowa State University. In B. Gold, S. Z. Keith, & W. A. Marion (Eds.), Assessment practices in undergraduate mathematics (pp. 49-53). USA: The Mathematical Association of America. Gordon, L. (2013a). Workshop: Writing student learning outcomes [PowerPoint slides]. MU-MAP – Mapping University Mathematics Assessment Practices (p. 54). Enhancing the communication and speaking skills of mathematics undergraduates (p. 18); Teaching Students to Write Mathematics (p. 19). Mathematical Presentation and Communication Skills within the Core Curriculum (p. 15); Maths Careers: Greenwich Graduates where are they now? (p. 16); Progress Files – Greenwich Implementation (p. 17). Concerned that an undergraduate student of mathematics would not be able to articulate the working practices of a mathematician, the HE Mathematics Curriculum Summit made a recommendation: “Develop a collection of teaching resources on the development of mathematics - stories from history and more recent development of the discipline.

The Undergraduate Admissions Assessment (UGAA) is used to fairly assess applicants from non-traditional educational backgrounds. The UGAA gives Admissions Selectors the opportunity to see a sample of an applicant's original work, produced under examination conditions, and seeks to assess applicants from a variety of backgrounds in a fair and equitable manner. The assessment is three hours long and will consist of English sections and a Mathematics section. It is designed to test your written and numerical skills. The assessment has three sections: comprehension exercises (Section A); essa