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Undergraduate programs and courses in the mathematical sciences. CUPM curriculum guide 2004.

The Mathematical Association of America, Washington, DC (ISBN 0-88385-814-2). 124 p. (2004).

The introduction contains six recommendations for departments, programs, and all courses in the mathematical sciences. Briefly, these recommendations direct mathematical sciences departments to: understand the student population and evaluate courses and programs; develop mathematical thinking and communication skills; communicate the breadth and interconnections of the mathematical sciences; promote interdisciplinary cooperation; use computer technology to support problem solving and to promote understanding; provide faculty support for curricular and instructional improvement. Part I elaborates on these recommendations and suggests ways that a department can evaluate its progress in meeting them. Part II contains additional recommendations concerning particular student audiences. Many recommendations in this book echo those in previous CUPM reports, but some are new. In particular, previous reports focused on the undergraduate program for mathematics majors, although with a steadily broadening definition of the major. The book addresses the entire college-level mathematics curriculum for all students, even those who take just one course. It therefore provides both encouragement and support for conversations not only among mathematics faculty but also between mathematicians and faculty in other disciplines.

Classification: D35 B15