

MATHEMATICS FOR FUTURE SECONDARY TEACHERS*

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Traditional upper-division university mathematics courses do not prepare future secondary-school mathematics teachers to think deeply about the high-school mathematics curriculum. In Spring 2001, we invited all Louisiana colleges and universities to nominate curriculum-development teams. Four teams were formed, each consisting of a university mathematician, a university math educator, a practicing high-school teacher, one or more pre-service high-school teachers. At a workshop in summer 2001, each team investigated a topic of limited scope and planned a series of lessons on that topic for upper-division undergraduate mathematics instruction. The teams then returned to their home campuses to complete and pilot curriculum materials. The topics the teams treated were:

- 1) Measurement, measurement error, and computing with imprecise data.
- 2) Geometric transformations and their geometric and algebraic representations.
- 3) Historically-based lessons on proportional reasoning in geometry and trigonometry.
- 4) Ways of constructing and representing parabolas.

The finished products and the results of testing will be made available at a web site (to be made). Our poster describes the teams and their innovative curricular materials.

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