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*Modeling with Mathematics: A Second Course in a Quantitative Reasoning Pathway.* Preliminary report.

Modeling with Mathematics is a course designed for students who have completed a one-semester course in Quantitative and Statistical Reasoning. It may serve the needs of some mathematics majors and future mathematics teachers but is intended to be of general interest to all college and university students. Modeling with Mathematics is an innovative course in modeling using sequences, functions, and geometry. The MwM course is designed to fill a critical gap in the nation's collegiate mathematics course offerings. The traditional core topics of high school mathematics—algebra, geometry, functions, and trigonometry—are applied to solve genuine problems in the world around us. Motivating questions, engaging investigations, and a capstone modeling project are the heart of the course. The MwM course balances reasoning and sense making with communication and in-context problem solving. This talk presents a sampling of tasks from the course. (Received September 20, 2016)