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*Inquiry-Based Courses at UAB for Prospective Elementary and Middle School Teachers Modeling  
the Standards for Mathematical Practice.*

A series of inquiry-based mathematics courses were developed and are being implemented at UAB. These courses are a part of a mathematics track aimed primarily at preparing middle school mathematics teachers, with two of the courses having a majority enrollment of elementary education majors. This presentation will share experiences from these two courses, MA 313, Patterns, Functions, and Algebraic Reasoning, and MA 314, Geometric and Proportional Reasoning. The inquiry-based focus of these courses uses pedagogy which models many of the Common Core Standards for Mathematical Practice. Students regularly engage in group problem solving tasks that often involve hands-on investigations. The courses emphasize reasoning and sense making and seek to develop in students productive dispositions such as perseverance in problem solving. A key feature developed in the process is communicating mathematics to others in written and oral form. Students lead group and whole class discussions of problems. In group and individual problem solving tasks, students learn to represent problems numerically, using words, using graphs, algebraically, and using physical models. The ultimate goal of these courses is to develop mathematically proficient students who will be teachers. (Received September 21, 2011)