

1023-G1-1413 **Jennifer J. Kosiak*** (kosiak.jenn@uwlax.edu), Mathematics Department, 1032 Cowley Hall,
1725 State Street, La Crosse, WI 54601. *Making Sense: Developing the Mathematical
Understanding of Prospective Middle School Teachers.*

The Mathematics Department at the University of Wisconsin — La Crosse offers a 22-credit mathematics minor with an education emphasis. This minor includes of a four-course sequence that is specifically designed to prepare middle school mathematics teachers. In addition to a two-semester foundational course, this sequence includes courses focused on geometry and mathematical problem solving. Two additional courses above college algebra are also required. Consistent with the curricular recommendations proposed in the CBMS MET report, students in this program are required to take at least one calculus-based course. Based on the research centered around the content knowledge needed for teaching middle school mathematics and further recommendations from the MET document, the content and instructional design are purposely selected to move beyond procedural fluency in an 'orientation toward making sense of the mathematics' that underlies the middle grades. This session will examine the content, instructional strategies, and pedagogical practices employed in this program including problem-based learning, use of classroom manipulatives, explaining mathematical reasoning through constructed response items, and protocols for examining student work. (Received September 26, 2006)