Although all students benefit from diverse instructional and assessment strategies, prospective elementary teachers seem particularly willing to explore a variety of carefully-chosen methods for creating and measuring understanding. Yet, many “Math for Elementary Teachers” courses do not capitalize on these opportunities to utilize more robust assessment techniques. In this talk, we will explore the two primary unconventional assessment approaches that we have incorporated into our revised “Math for Elementary Teachers” sequence. First, a mastery-based approach to exams strikes an interesting balance among students’ understanding, anxieties, and expectations within a college-level mathematics course. Second, student presentations of course content allow students to excel in a hands-on, technology-focused format that emulates their chosen career path. This talk will cover key details of each approach, some pros and cons to these forms of assessment, and reactions from both students and faculty. (Received September 22, 2015)