Typically a degree program adopts a vertical approach in that it assesses student performance in a rather segmented fashion, as the student completes the required coursework over a period of time. We lose valuable information that could provide critical feedback, a diagnostic snapshot of our graduates’ mathematical abilities (procedural and structural) and experiences as they prepare to leave academia and enter the real-world. Toward this end we redesigned our capstone course by incorporating two integral components; an exit examination that complements the vertical assessment approach - by obtaining an assessment of learning encompassing the breadth of the subject, one that focuses on the milestones of mathematical concepts, such as advanced calculus, linear and abstract algebra, proof and analysis; a portfolio that gathers a report consisting of all upper-level course reflections, a current status report and a future plan. In this presentation we describe the trajectory of this restructuring, the past and future challenges on our path, and elaborate on our learning outcomes. (Received September 29, 2005)