## 1125-F1-2136 Marie P. Sheckels\* (msheckel@umw.edu), Department of Mathematics, University of Mary Washington, 1301 College Avenue, Fredericksburg, VA 22401. Enhancing quantitative reasoning and skills through exploring scientific applications.

Many college students enter college considering one of the STEM majors. However, some students are underprepared for the mathematics and reasoning skills needed for success in sciences courses. MATH 120: Quantitative Reasoning for the Sciences at the University of Mary Washington is designed to help refresh and enhance students' mathematics understanding and skills while at the same time introducing them to various topics in the STEM fields so to both interest them and prepare them to be successful in those areas. There are numerous science-related applications of mathematics that are accessible to students in pre-calculus level courses. In this general education mathematics course students become familiar with how mathematics is used to answer scientific questions and in so doing strengthen their quantitative literacy. This talk with explain the structure of the course and the alignment between the science and mathematics topics. It will describe how students engage in problem-based learning and provide examples of the various projects and activities that students work on involving relevant applications in areas of environmental science, astronomy, biology, genetics, physical science and medicine. Results from a classroom research study will be shared. (Received September 19, 2016)