

1163-M1-1332      **Greg Hartman\*** (hartmangn@vmi.edu) and **Katherine Crowley** (crowleykd@vmi.edu).

*Learning modeling using non-STEM data: sample projects from Math That Matters, an inquiry-based introduction to mathematical modeling for students without calculus.*

Virginia Military Institute's Math That Matters courses are a two-semester modeling sequence designed for students whose major does not require calculus. The sequence teaches modeling through active learning projects using scenarios and data sets provided by the departments the courses service. Three sample projects are given. In one, students analyze voter characteristics using a large and messy data set provided by the Department of International Studies, requiring pivot tables in Excel to prepare a hypothesis test. In another, students design an art exhibit with 40 paintings and sculptures, determining art placement and visitor traffic flow using scale models. Finally, we highlight one student project from the second semester, where students work in pairs on a semester-length modeling project of their own design. We describe how and why we designed this course and how it can be tailored to use data from your institution. (Received September 15, 2020)