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Stephen G Hartke* (hartke@math.unl.edu), Dept of Mathematics, Univ of Nebraska-Lincoln, Lincoln, NE 68588-0130, and **Petronela Radu**, Dept of Mathematics, Univ of Nebraska-Lincoln. *Math in the City: A hands-on learning experience with projects on sustainability*. Preliminary report.

Math in the City is an interdisciplinary course in which students engage in a hands-on learning experience using mathematical modeling to understand current major societal issues of local and national interest. The course is run in collaboration with local businesses and research centers with students creating and analyzing models based on real data. Some recent projects include the design and construction of green buildings and on how to optimize the city's recycling program. In this talk I will focus on these sustainability projects and talk about potential future projects. The course will be further developed while supported by a STEM (former CCLI) NSF award and it will be disseminated to other colleges and universities. (Received July 28, 2010)