1077-H5-2830   **M. Anne Dow*** (`adow@mum.edu`), Department of Mathematics, Maharishi University of Management, Fairfield, IA 52557. *A Mathematics Course for Majors in Sustainable Living at the Level of Intermediate Algebra.*

For four years I have been developing and teaching a 4-credit course for Majors in Sustainable Living at Maharishi University of Management. The Major in Sustainable Living aims at an entrepeneurial rather than a technical goal: to create graduates who are prepared to design, build, and maintain sustainable communities. Students are expected to be able to understand and use technical reports, but not necessarily able to create the technology. Thus only a minimum level of mathematical training is required. Every mathematical topic is introduced in the context of a problem in Sustainable Living. For example, I introduce trigonometry by the problem of where to place awnings on a house for maximum passive solar effect. Then I cover the relevant mathematics in its own right, show how it solves the problem, and finally show how the same mathematics solves lots of other problems in Sustainable Communities. Parabolas are introduced in the context of gathering energy, and so on. The final project is to create a design for a sustainable community with 5 houses that gathers its own energy and water. (Received September 22, 2011)