## 1067-J1-73 Bill Marion\* (Bill.Marion@valpo.edu), Department of Math and Computer Science, Valparaiso University, Valparaiso, IN 46383. Calculus Reform and Discrete Mathematics.

The Calculus Reform Movement paved the way for undergraduate mathematics faculty to move away from relying exclusively on the lecture method to teach Calculus. At Valparaiso University the 4-credit Calculus I and II courses are taught in a 3+2 mode with weekly 90-minute computer labs, using Maple as the computer algebra system of choice. The 3-credit discrete mathematics course we offer is required of all computer science and computer engineering majors. A CS I-type course is a prerequisite and Calculus I is a co-requisite.

Two years ago I began to incorporate some Maple examples in my discrete mathematics course to help students better understand some of the more abstract concepts introduced in the course, such as inductive and deductive reasoning and the formal definitions of big-Oh, big-Omega and big-Theta. In addition, since all of the students have had at least one programming course, I have been assigning team projects which make use of the programming facility in Maple. Examples of both programming and non-programming exercises will be illustrated. I will also describe some of the students' reactions to these types of assignments, some my own observations and some changes I intend to make when I teach the course in the Spring of 2011. (Received July 12, 2010)