Judith E Canner* (jcanner@csumb.edu), 100 Campus Center, Seaside, CA 93933, and Jon Detka. Using R in an Undergraduate Statistics Course.

The mention of utilizing R programming in an undergraduate statistics course is often met with trepidation from both students and professors. We believe that the introductory nature of an undergraduate statistics course provides an excellent venue for demonstrating the usefulness of the R language in statistical analysis. We will discuss how we have successfully incorporated R into an Applied Statistics course at Cal State, Monterey Bay. We will discuss our approach to designing lecture materials and weekly lab investigations that carefully scaffold concepts from Statistics with introductory R programming as a means of encouraging students to apply R programming techniques to statistical problem solving. We will discuss our approaches to equipping students with troubleshooting techniques and prepare students for their individualized take-home R practical exams. The use of open source freeware is not devoid of challenges. Installation issues and bugs can detract from student's learning of statistical concepts. In addition, students may struggle with vector concepts or deciphering coding errors and shift their efforts towards completing an assignment without interpreting errors and annotating code. We will present our strategies for helping students overcoming these obstacles. (Received September 12, 2011)