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**Roxy L Peck\*** (rpeck@calpoly.edu), Roxy Peck, College of Science and Mathematics, Cal Poly, San Luis Obispo, CA 93407. *Using Technology to Develop Understanding of Statistical Concepts.*

Introductory statistics courses are notorious at many universities for being difficult and unable to capture the interest of students, and they often have embarrassingly high failure rates. All too often, even the students who do "survive" are able only to mechanically apply cookbook type recipes with little real understanding of the underlying fundamental concepts. While the mechanics of most statistical methods are easy, the concepts that underlie them are very abstract and often difficult to explain to the beginning student either verbally or algebraically. This paper looks at the way in which technology can be used effectively to both create a stimulating learning environment and to develop conceptual understanding in ways that go beyond what most instructors can do with words and a chalkboard. The paper will provide specific examples of how technology can assist in teaching abstract statistical concepts. Several conceptual software packages will be discussed, including Visual Statistics, ActivStats, and The Electronic Companion to Statistics. (Received September 15, 2000)