The challenges facing delivery of a statistics class to nontraditional undergraduate students in nontraditional higher education programs are especially pronounced when the instructions are delivered online. However, a plethora of web-based statistical tools and concepts demonstrations are readily available to undergraduate students, additionally many of these statistical tools and demonstrations are also rich and powerful in scope. Web-based statistical tools and demonstrations range from the extremely simplistic (mundane) to the extremely complicated (theory driven using high level mathematics), however, the key for the instructor/facilitator is to not only balance the appropriate number and complexity of resources but also to insure that students effectively use them for understanding statistical concepts and methodologies. A study was conducted in order to understand the optimal method to introduce web based statistical resources into the online classroom and support learning objectives. This presentation will show the results of the study and present an instructional method to capitalize on the wealth of resources available to students to enhance the learning and understanding of statistical concepts. (Received September 22, 2009)