

AbstractID: 4330 Title: A Nontraditional Method of Providing Radiation Protection Instruction at a Large Health Science Center

Purpose: To test the hypothesis that the combined online/lecture format was as effective as the lecture-only format for students who took the University of Alabama at Birmingham (UAB) radiation safety course.

Method and Materials: In the 4th quarter of 2001 the University of Alabama at Birmingham (UAB) converted its traditional classroom radiation safety course, taught exclusively in a classroom setting four times each year, to a combined online-classroom format in which the majority of the course is taught online. This change was instituted in an effort to minimize the time spent in the classroom for UAB research personnel. This format should provide the additional benefit of self-paced instruction for course participants. A statistical analysis was performed on the average first-attempt test scores of the tests (number of tests=334) taken during a two-year period before the online transition (average score=75.5), and the average first-attempt test scores of the tests (number of tests=359) taken during a two-year period after the online transition (average score=74.1.)

Results: A two-tailed Student's t-test was performed on the data. The t-value was 1.73, and $P(T \leq t)$ was 0.083. At $\alpha=0.05$, the null hypothesis that the two averages are equal cannot be rejected.

Conclusion: The online course format appears to be as effective a method of radiation safety instruction as the more traditional, exclusively-classroom method of instruction. This presentation also reviews steps under consideration to improve the current online course to make it a more effective tool in radiation safety instruction.