

American Statistical Association

Kansas Western-Missouri Chapter 2007 Spring Meeting

Speaker

Dr. Allan Rossman

Professor of Statistics at Cal Poly in San Luis Obispo, California.

Title

Introducing Students to Statistics

Thursday, April 5

at

Holiday Inn

(which is located on Anderson across the street from the KState Union
formerly Ramada Inn)

Manhattan, KS

6.00 p.m. – 6.30 p.m. Social Time

Dinner starts at 6.30 p.m.

Dinner: Buffet Dinner

Cost: \$30.00 for members
\$20.00 for students

Contact information: Ananda Jayawardhana (ananda@pittstate.edu)

Abstract

Recent years have seen many exciting developments in undergraduate statistics education. Curriculum recommendations to focus on statistical thinking, emphasize data and concepts, de-emphasize theory and recipes, and foster active learning have had a substantial impact, and many resources including activities and software have been developed and disseminated. One problem is that the vast majority of these efforts have been directed at the "Stat 101" service course, and relatively little attention has been paid to introductory courses for mathematically inclined students. This group warrants more attention because it provides the breeding ground for future statisticians and for future teachers of statistics. In this presentation I will describe a curriculum project that aims to present a data-oriented, active learning introduction to statistics for mathematically inclined students. I will illustrate the pedagogical approach by presenting activities that explore the use of randomization tests, that evaluate the effectiveness of competing interval estimation procedures, that investigate the concepts of power and robustness, and that compare least squares estimation to other criteria. I will conclude by suggesting some areas in statistics education that are ripe with opportunity for increased attention.

Brief biographical sketch:

Allan Rossman is a Professor of Statistics at Cal Poly in San Luis Obispo, California. He has a Ph.D. in Statistics from Carnegie Mellon University and taught for 12 years at Dickinson College before moving to Cal Poly. His primary professional work is in curriculum development for introductory statistics courses. He is co-author of the Workshop Statistics series of books that contain activities intended to lead students to discover fundamental ideas of introductory statistics. He is also co-author of Investigating Statistical Concepts, Applications, and Methods, which provides an activity-based introduction to statistics at the post-calculus level. He is President of the International Association for Statistical Education from 2007-2009 and is Program Chair for the 2007 Joint Statistical Meetings. He was selected as a fellow of the ASA in 2001.