

Course Focus

BIOB 318 Biometry - Jack Martin



If you told someone you were taking a course called Biometry, most would not know what the course was about. Biometry has its origin in two Greek words, bios (life) and metron (measure). Thus, biometry means measurement of life. A more practical definition is the application of statistics to solution of biological problems. So topics included in Biometry include: descriptive statistics (measures of center and spread of data), basic ideas about probability distributions, concepts of statistical inference (interval estimates and hypothesis testing) and relationship between variables (linear correlation and regression).

The format is three lecture periods per week. Lecture notes, assignments, problem solutions, data files, Excel help, sample exams and current exam solutions are available on Desire2Learn. Students use statistics capabilities within Microsoft Excel to do out of class exercises. This 3 credit course is offered each Fall semester. This semester there are 50 students representing 12 different majors from three colleges.

Since I am in the Plant Sciences and Plant Pathology department, what would qualify me to teach a course like this? I am reminded that R. A. Fisher, who contributed much to statistics and genetics during the 20th century, said, "I believe sanity and realism can be restored to the teaching of Mathematical Statistics most easily and directly by entrusting such teaching largely to men and women who have had personal experience of research in the Natural Sciences." In that light, my degree program was in plant breeding with a minor in statistics. My research has been in plant breeding, and I have encountered many applied statistics problems over the years. I believe those experiences help me to relate these topics to students.