

MURRAY STATE UNIVERSITY
Syllabus: PSY 591, Statistics

REQUIRED TEXT AND RECOMMENDED COMPUTER SOFTWARE:

- 1) Minium, E.W., et al. *Elements of Statistical Reasoning* (2nd Ed.)
- 2) EcStatic for Windows Statistical Package

PREQUISITES: knowledge of basic algebra

PURPOSE AND COURSE OBJECTIVES:

The course is designed to provide students with opportunities to master the basic elements of experimental design, statistical analysis, and the interpretation of research findings. The course will be “applied” in the sense that students will use statistical software to perform most analyses. However, the selection and interpretation of the appropriate statistical tests will emphasize the principles of psychometric theory, sampling distributions, and the theory underlying hypothesis testing.

ADVICE TO STUDENTS:

Statistics is difficult for many students but not, as a rule, because they have a low aptitude for mathematics. The problem, rather, is language. You will be learning a new one in which complex ideas are communicated by the use of symbols. Many of the symbols and most of the concepts will be entirely new. You should expect to read your statistics text much more slowly than you read other textbooks. You should also expect to reread some sections a number of times before the relationships become clear.

Finally, since statistical concepts are interrelated and complementary, each must be mastered before the next can be understood. Don't fall behind! You will be given regular and ample opportunities to check your comprehension and to receive individual help from the instructor. Take advantage of them. (With acknowledgments to H. E. Klugh, *Statistics: The Essentials for Research*.)

CONTENT OUTLINE: See lecture schedule

EXAMINATIONS:

The course will be divided into four blocks with an examination following each block and two comprehensive examinations. The first will assess students' skills in using the EcStatic software package. The second will assess students' mastery of statistical concepts and reasoning. Brief quizzes will be given at the beginning of most class periods. All make-up examinations will be administered at the end of the semester. There will be no make-ups for quizzes.

ASSIGNED PROBLEMS:

At the end of each class period, an assignment relating to the material covered in the lecture will be provided. The purpose of these assignments is to allow you to apply new concepts while they are fresh in your mind.

GRADING:

The grading process consists of two stages. The first stage is an evaluation of whether or not the student has met the requirements of the course as described in this syllabus. These include attendance, learning to apply the EcStatic software to statistical analyses, completing assignments on time, and taking exams when scheduled. None of these requirements is optional. If the student meets the above requirements, THEN the course grade will be determined by performance on the exams and quizzes. Each of the six exams and the composite performance on the quizzes will contribute one-seventh to the course grade.

ATTENDANCE POLICY: This course adheres to the policy published in the MSU Undergraduate Bulletin.

THE MURRAY STATE UNIVERSITY POLICY ON ACADEMIC DISHONESTY:

Cheating, plagiarism (submitting another person's material as one's own), or doing work for another person which will receive academic credit are impermissible. This includes the use of unauthorized books, notebooks, or other sources in order to secure or give help during an examination; the unauthorized copying of examinations, assignments, reports or term papers; or the presentation of unacknowledged material as if it were the student's own work. Disciplinary action may be taken beyond the academic discipline administered by the faculty member who teaches the course in which the cheating took place.

Since deviation from this syllabus may be necessary to meet the needs of the class, the right is reserved to make adjustments where necessary or helpful.