STATISTICS 6610   APPLIED NONPARAMETRIC STATISTICS   SUMMER 2018

INSTRUCTOR: Professor Doug Critchlow   e-mail: dec@stat.osu.edu

OFFICE: Cockins Hall Room 304E   Office Phone: 292-3888

OFFICE HOURS: Wednesdays and Fridays 3 – 4 p.m.

COURSE TEXT: Hollander, M., Wolfe, D. A., & Chicken, E., *Nonparametric Statistical Methods*, Third Edition (2014), Wiley.

COURSE OUTLINE (and Corresponding Textbook Sections):

Review of Basic Concepts from Classical (Parametric) Statistics, and Comparison
    with the Nonparametric Approach (1.1 - 1.6 and supplemental material)

The Dichotomous Data Problem (2.1 - 2.3)

Sign Test Procedures for the One-Sample Location Problem and for Paired
    Replicates Data; Asymptotic Relative Efficiency (3.4, 3.5, 3.6, 3.8, 3.11)

Signed Rank Procedures for the One-Sample Location Problem and for Paired
    Replicates Data (3.1, 3.2, 3.3, 3.7, 3.11)

The Two-Sample Location Problem (4.1, 4.2, 4.3, 4.5)

Kolmogorov-Smirnov Two-Sample Test for General Differences (5.4)

The One-Way Layout; Multiple Comparisons Procedures (6.1, 6.2, 6.5, 6.7)

Kendall's Tau Procedures for the Independence Problem (8.1, 8.2)

The Two-Way Layout (7.1, 7.2, 7.3, 7.4)

Note: If time allows, we may cover some additional sections of the textbook. Also, occasionally some supplemental material, from outside the textbook, will be covered in lecture. You are responsible for all the material presented in lecture.

GRADING SCHEME (Tentative):
    Homework Assignments   20%
    Midterm Examination   40%
    Final Examination   40%

In addition, several optional "bonus homework problems" will be given in lecture, that elaborate on some of the more difficult (and hopefully intriguing) aspects of the course material.

The final exam is scheduled for the last regular class session, Friday, June 29 from 11:40 AM – 1:15 PM in the usual lecture classroom. No "early" final exams will be given, so make your travel plans accordingly.

Classroom Policies: Use of personal computers, cell phones, etc. is prohibited during lecture. Please do not read the newspaper or other extraneous materials during lecture. Homework will be due at the start of class; please do not work on the homework during lecture.

Attendance Policy: In accordance with University Rules, a student who is absent from three or more (not necessarily consecutive) classes, without contacting the instructor with a valid excuse, may be reported for possible disenrollment. To prevent disenrollment, the instructor should be contacted (e-mail: dec@stat.osu.edu) within 24 hours of the third (and any subsequent) absence.