STATISTICS 6610	APPLIED NONPARAMETRIC S	STATISTICS	AUTUMN 2019
<b>INSTRUCTOR:</b>	Professor Doug Critchlow	e-mail: critchlow.1@o	osu.edu
OFFICE:	Cockins Hall Room 440G	Office Phone: 292-388	38
<b>OFFICE HOURS:</b>	Wednesdays and Fridays 1:15 – 2:15 p.m.		
COURSE TEXT:	Hollander, M., Wolfe, D. A., & Chicken, E., Nonparametric Statistical Methods, <u>Third Edition</u> (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, 6.8)

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

The Two-Way Layout (7.1, 7.2, 7.3, 7.4, 7.5)

**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%
Two Midterm Examinations (20% each)	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 on Tuesday, December 10 from 10:00AM to 11:45 AM 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: critchlow.1@osu.edu) within 24 hours of the third (and any subsequent) absence.

**Academic Misconduct:** It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct (http://studentlife.osu.edu/csc/).

**Disability Accommodations:** The University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12<sup>th</sup> Avenue.