Syllabus

HECC 5317 BIOSTATISTICS
DEPARTMENT OF PUBLIC HEALTH
Fall Semester 2024
traditional/hybrid format

Course Dates: August 25 – December 14 2024.

Instructor-of-record: William Sorensen, Ph.D., MSPH, MA
Office Location & Times: PAC UT Tyler Rm #3095, regular office hours but schedule a time beforehand (send instructor an e-mail to set up a time).
Phone: (903) 566-7032
E-mail: wsorensen@uttyler.edu or bsorensen@uttyler.edu

Face-to-face classes: HPC #3010 starting from 5:00 to 7:30pm (see schedule for which days)

Required Text: Knapp H. Intermediate Statistics Using SPSS#, Sage Publications, Thousand Oaks, CA., ISBN 978-1-5063-7743-8. The library has special etext deals; see early announcement.

Computer Software: SPSS*

Course Considerations:
The text, SPSS software, and CANVAS are the main pillars to this course. Therefore, careful reading of the assigned chapters, attention to all postings in CANVAS and constant SPSS practice should lead you to success in this course.

#Note: This text comes with online aids, like instructional videos data sets. Go to https:/*study.sagepub.com/intermediatestats*
***Note:** Where can you access SPSS software? 1) if you are on the UT Tyler campus you can find it in practically any student-designated computer station: The library, the Business computer lab, the Nursing Computer lab, even the Health Sciences Computer lab. 2) if you are off-campus, you may access it by navigating to one.uttyler.edu; then select the catalog tab; then open the Horizon icon (then go to Desktop); with this icon you may find SPSS and open/use it (however, analysis speed is compromised). 3) if you are off campus seriously consider renting the software to place on your computer (instructor's recommendation; you may rent from major online, rentable textbook companies, like AMAZON). If you rent, please make sure you get a decent version of SPSS (20-27), the right format for your computer (PC or Mac), and rent a "standard" or "premium" application ("basic" will not help with this course).

Format: This class is mostly a traditional, in-person class, but some may call it a "hybrid" class with our handful of Zoom meetings and exam-accessing through Canvas.

Please have your Canvas notifications set so that you receive Canvas announcements automatically through your email account. Make a constant schedule whereby you log into Canvas several times each week. In regards to questions when you are away from class, about the "mechanics" of the class, please communicate through the Canvas discussion folder called "Administrative issues". This allows both questions and responses to questions to be seen by everyone. More generally, please do not by send the instructor an e-mail message or a private Canvas-"inbox" message about the mechanics of the course. Please note that the instructor is an "older" individual and doesn't program fancy alerts through Canvas. For deadlines, please refer to the document "schedule".

Course Catalogue Description: Study of statistical analysis of basic and clinical research data.

Course Goals: The purpose of this course is to provide some theoretical information, but mostly practical opportunity regarding statistical analysis. Opportunity will be provided for students to apply appropriate statistical procedures based upon their understanding of the *nature of the question* being asked and the

type of data gathered. The student will be able to enter, manipulate, analyze and interpret output generated from SPSS software.

Course Objectives: To accomplish the purpose of the course the student will be able to:

1. Apply appropriate statistical procedures to the different types of data and various types of research questions.
2. Understand the theoretical bases and assumptions of basic statistical procedures.
3. Apply statistical reasoning and insight toward solving research problems.
4. Use statistical software (SPSS) to manage and manipulate data in order to make meaningful information (interpretation).
5. Read, think, and write using appropriate statistical language.

Grading:

Letter grade-percentage transposition: A: 91% - 100%
B: 81% - 90%
C: 71% - 80%

Grading Plan:

Exams	56 pts: 2 exams (28 pts each)
Projects	34 pts: 4 projects (7+8+9+10 pts)
Participation	10 pts: Canvas posts (Excel assignment; supplementary reading/discussions)
TOTAL	100 points

Consider:

Much of your learning will be trial-and-error, in that you try something in SPSS, it doesn't work, and you try again, and again. It still may not work after 4 or 5 attempts. There may be an early perception of confusion early on, because of this. Your best strategy to help you through these early frustrations is to:

1) Set aside time, ahead of time, to work the computer program, and time to read the text, according to a RIGID, WEEKLY schedule,
2) Be consistent in reading and practicing,
3) Keep your expectations reasonable; do not expect to "get" something after the first reading or first computer trial. In this sense, the course is like practicing a musical instrument (if any of you have learned to play an instrument you know how drab and frustrating this activity can be at first).

Still, after one semester, you will be able to do most of the statistical testing that is in the text, on your own, with a variety of data sets.

In addition, consider:

The motivation to learn is up to you; the instructor is a mere guide. Therefore, the text is highly pivotal in your success. Even though you will receive supplemental lectures and instruction, the TEXT MUST BE READ in a regular and timely manner, and most likely, many times over. Along with that, don't be afraid to get your feet wet by looking at a new data set, and trying an analysis procedure. Assigned text exercises are for the benefit of the student. Don't be afraid- you can't break it.

Do not rely on the instructor solely to receive a response to a question; post a question in a Canvas folder, offering questions AND responses (your participation is noted by counting Canvas posts). Chime in if you are having difficulty, and help out if you suspect you found an answer. It is OK to post links to other information sources (a link to a YouTube video for example, and to write a few lines SUMMARIZING what you heard from the video). Please do not send the instructor a private e-mail or private Canvas-message about SPSS/analysis mechanics.

Scheduled Exams & Projects:
Exams and projects will be given and received on specified dates (are fore-mentioned in the schedule, and dates/times will be fine-tuned according to future announcements). There are no make-ups to the projects or exams (Late exams or projects are not allowed; only for extremely extenuating circumstances with prior approval of the instructor may an extension be considered).

AI statement (starting in the fall of 2024, UT Tyler expects every course syllabus to include an AI statement): AI is not permitted in this course at all. The reasons for this decision from Dr. Sorensen emanate from the fact that you are mostly programming in this course. Once in awhile you will be asked to comment on an article, but those are small statements that an individual human can and should manage without help.

Ongoing pandemic: One must continue to consider prevention behaviors in the traditional class setting, that is:

-Perhaps wear masks;
-Perhaps socially distance from one another;

These decisions are done by the individual, with support from the instructor. The instructor cannot enforce traditional students from coming into or leaving the classroom; they will have the option to go online as much as they want, or even become 100% online (if this happens, please follow the "online" guidelines and let the instructor know).

UT Tyler POLICIES - See most University Policies and Information in the Canvas module "Getting Started"

Tobacco-Free Campus:

- All forms of tobacco will not be permitted on the UT Tyler main campus, branch campuses, and any property owned by UT Tyler. This applies to all members of the University community, including students, faculty, staff, University affiliates, contractors, and visitors.
- Forms of tobacco not permitted include cigarettes, cigars, pipes, water pipes (hookah), bidis, kreteks, electronic cigarettes, smokeless tobacco, snuff, chewing tobacco, and all other tobacco products.
- There are several cessation programs available to students looking to quit smoking, including counseling, quitlines, and group support. For more information on cessation programs please visit www.uttyler.edu/tobacco-free