Health Data Analysis Practicum (AS.280.347) – Spring 2020
Course Syllabus

Instructors:
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Meetings:
Mondays, 3:00-4:30pm, Hodson 216, Homewood Campus
Students are also strongly encouraged to find a regular time each week to attend at least one office hour session, times and locations TBD.

Learning objective: The course objective is t*o enable each student to enhance his or her quantitative, scientific reasoning and to achieve a functional standard in statistical data analysis using the R statistical language.* Statistics is about quantitative approaches - ideas and skills - to address scientific questions. This course is intended to develop practical skills in using data to seek answers to research questions. Each week we will introduce new statistical and analysis and programming concepts that students will be expected to master through independent work.

Prerequisites:
Public Health Biostatistics (AS.280.345) or equivalent
Some knowledge of R

Format: The course is organized in a small group, participatory format to promote communication and mastery of new ideas and skills using the R statistical language. Bring your laptop to each course meeting. You are strongly encouraged to work together in informal groups prior to meetings to develop your teamwork skills, in particular listening and teaching.

The course is organized into three "modules". Each module is built around a public health question. The question and data will be provided for Modules 1 and 2; you will identify a dataset and question for Module 3. During Module 3, students will present the analysis of their own data to receive critiques from their colleagues.

Communicating with instructors and the TA: Please email the course instructors at the email address **phbiostats@jhu.edu**. If asking a question about code or other work for an assignment, please also copy the TA (gschumo1@jhu.edu) on your email as well. If you email the instructors at their individual accounts about a course-related matter, you will not receive a reply.

Student evaluation: The goal of the grading method is to reward students who themselves master statistical ideas and methods as demonstrated through their class presentations and final project and who help others do the same as measured by faculty and student assessment of collaborative and communication skills. The grades assigned in the course and their qualitative meanings are: A – excellent; B – good; C- fair; D-poor; F-failing. The distribution of grades is not pre-specified.

Student work will be evaluated with the following weighting
- Class participation that demonstrates growth toward mastery of the statistical ideas and methods, and their implementation using R – **20%**
- Project reports/presentations – **20%** each for Modules 1-2, **30%** for Module 3
- Quality of collaborative skills to promote group understanding of the material – **10%**

R-learning modules: To help you gain facility is using R, we suggest you explore the resources available on RStudio Cloud, which has various tutorials available on different topics. You can access these by clicking on the "Primers" link in the "Learn" section of the left-hand menu of RStudio. Although not required, we strongly recommend using these excellent interactive resources to help you learn R.

R for Data Science: Another great resource for learning R is the online book "R for Data Science" by Hadley Wickham and Garrett Grolemund. You can access this book for free at: https://r4ds.had.co.nz/

Getting ready: If you have not already done so, **create accounts for yourself at rstudio.cloud (**https://rstudio.cloud/**) and GitHub (**https://github.com/**).**

Policies: Attendance at all course meetings is required and will contribute to assessment of class participation and collaboration. Assignments are due on the dates indicated in class and on Blackboard. Late assignments will only be accepted when prior approval for late submission was given in advance of the due date.

Student athletes are responsible for submitting their semester schedule in writing during the first week of class. The only excused absences for athletic related purposes will be for competition related events.

If you are a student with a disability or believe you might have a disability that requires accommodations, please contact Dr. Brent Mosser, in Student Disability Services, 385 Garland, (410) 516-4720, studentdisabilityservices@jhu.edu. Students that require an accommodation must obtain an accommodation letter from Student Disability Services. The office website is
http://web.jhu.edu/disabilities/students/admitted/documentation/index.html
If you believe you need other accommodations for assignments or examinations, please contact the course instructor ahead of time to discuss the matter privately.

Students who heed the advice of health professionals to stay home due to illness and thus miss class will be accommodated. Students who must miss a class because of a religious holiday must inform the instructor as early in the semester as possible in order to make up any work that is missed.

Students will be expected to follow the Department of Biostatistics Code of Conduct as outlined here. As instructors, we are committed to providing a welcoming, intellectually stimulating, and inclusive experience for everyone in our class, regardless of their origins, personal characteristics, or beliefs. We will not tolerate discrimination or harassment with respect to sex, race, ethnicity, sexual orientation, religious beliefs, or other characteristics comprising an individual's status and identity in our class. We thank you for your commitment to making our class a supportive place to learn.

The Office of Academic Support at JHU (https://academicsupport.jhu.edu)

Wyman Park Bldg, Suite 170

All programs are free to students, please see below for specifics:

PILOT Learning – Peer-Led Team Learning

- Students are organized into small study teams who meet weekly to collaborate on faculty-developed problems-sets. Students work together as a team to solve problems.
- A trained student leader acts as captain and facilitates the weekly meetings using various strategies to foster a collaborative learning environment.
- Contact: Ariane Kelly - 410-516-4648; email ariane.kelly@jhu.edu

Learning Den Tutoring Program - Small Group Tutoring

- Small group, tailored tutoring of 6 students or less which is headed by one tutor. Visit the website (above) to schedule appointment online or walk-in.
- Tutors can assist with but are not limited to:
  - Review and strengthening of subject-specific material knowledge
  - Assist with homework-like problems

- o Course-specific study skills and exam preparation
- Contact: 410-516-8216; email tutoring@jhu.edu
- Students can begin making appointments on Monday, September 9th through their MY.JHU Portal under the Education icon. This will make the process easier on the students when making their appointments. Students are still able to walk-in to appointments in The HUT (Gilman Hall) but seats are not guaranteed.

The Study Consulting Program

- Students work one-on-one with a study consultant to develop strategies for success. Areas addressed include but are not limited to:
  - o Time management
  - o Note taking and test preparation
  - o Mastering large amounts of information
- Contact: Dr. Sharleen Argamaso – 410-516-8216; email sharleen.argamaso@jhu.edu

Mental health resources:

Counseling Center (studentaffairs.jhu.edu/counselingcenter)
- 3003 N Charles Street, Homewood Apartments, Suite S-200, 410-516-8278
- Individual, couples, and group therapy; psychiatric consultation; workshops; LGBTQ resources; international student support; crisis response

Office of the Dean of Student Life (studentaffairs.jhu.edu/hopreach)
- Mattin Center, Suite 210, 410-516-8208
- Case managers respond within 24 hours to reports of student distress, reaching out to students to problem-solve and refer. Faculty, staff, students, and families may report concerns via the Public Reporting Form: tinyurl.com/hopreach-report.

CHEW (Center for Health Education and Wellness) (studentaffairs.jhu.edu/chew)
- AMR II. 410-516-8396
- In one-on-one confidential educational sessions (20–60 minutes) with a Certified Health Education Specialist, students develop personalized wellness goals.

A Place to Talk (APTT) (pages.jh.edu/aptt)
- BLC 4010 and Wolman, Sun–Thurs, 7pm–1am
- Peer Listeners are undergraduates with 50 hours of training in listening skills and crisis intervention in partnership with the JHU Counseling Center. Private, open late.