SYLLABUS
Computation and graphical analysis in statistics (Stat 486)

Course: 01:960:486:01 Spring 2022
Class Times: W12:10-1:30 PM
F 2:00-3:20 PM
Room:SEC 208 Busch
TA: TBD
TA OFFICE HOURS:TBD

Instructor: Dr Michael LuValle
E-mail: ml1305@stat.rutgers.edu

Office/Class: https://rutgers.webex.com/meet/ml1305
Office: 467 Hill Center (not yet, lets hope)
Office Hrs: TBD

Masks in the class room:
In order to protect the health and well-being of all members of the University community, masks must be worn by all persons on campus when in the presence of others (within six feet) and in buildings in non-private enclosed settings (e.g., common workspaces, workstations, meeting rooms, classrooms, etc.). Masks must be worn during in person class meetings; any student not wearing a mask will be asked to leave.

Classes and office hours will be through the Webex room listed above (Office/Class) through Jan 30 as per the Rutgers administration. Hopefully seeing you in person from then on.

Course Description in Catalog:
Computing and Graphics in Applied Statistics (3)

Prerequisite: Level II Statistics. Use of various computer-based techniques, including graphical, to understand and interpret data. Exposure to basic analysis of categorical, time-series and multivariate data in the applied areas such as biostatistics, quality control, environmental statistics and reliability.

Course Objective:
An introduction to statistical computing, statistical graphics, and data analysis designed to provide hands on experience with statistical software. Students will work with data sets of varying size to develop the ability to interactively examine the data graphically, generate analyses using R, and summarize the results both as verbal presentations and in writing. Students will be introduced to R programming, work with a variety of available R procedures, write their own procedures, including GUIS to control those procedures, and be able to interpret the statistical results they get from the procedures.

Important Considerations: You will be writing and executing R programs for this class. Some R programs will be provided that you can use and modify. You learn by writing and fixing your R code. You will need to be able to refer to R manuals and examples that are available through the

Internet to successfully complete homework assignments. Statistical methods will be taught/reviewed as necessary depending on class needs. It is very important to attend classes. When we are online, the course is synchronous. BE THERE.

MAIN REFERENCE

An Introduction to Statistical Learning, with applications in R (Springer, 2013)
G. James, D. Witten, T. Hastie and R. Tibshirani
Free book PDF available at: http://www-bcf.usc.edu/~gareth/ISL/
Or at https://statlearning.com/

Class Site CANVAS

Rutgers Honor Pledge is in effect at all times: *"On my honor, I have neither received nor given any **unauthorized** assistance on this examination/assignment."*

Grading:
This course is entirely based on written assignments and coding + data analysis projects. Projects can be done with up to a MAXIMUM of 2 other people!

Grading

Grade	Final Score
A	≥ 90
B^+	85 - 89
B	78 - 84
C^+	70 - 77
C	60 - 69
D	50 - 59
F	0 - 49

TEACHING ASSISTANT AND LEARNING CENTERS:

If experiencing difficulty with any problems or need help with the course material, please ask for help, during class, by email or through office hours. If it is course material feel free to ask the TA as well (To be assigned).

ON-LINE RESOURCES:

The syllabus, and class-handouts are posted on Canvas.
1st day resources will be described by Pearson representatives in an early class

USEFUL CONTACTS/LINKS:

Counseling, ADAP & Psychiatric Services (CAPS): (848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901 / http://rhscaps.rutgers.edu

Violence Prevention & Victim Assistance (VPVA): (848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901 / http://vpva.rutgers.edu

Disability Services: (848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 / https://ods.rutgers.edu

Scarlet Listeners: (732) 247-5555 / http://www.scarletlisteners.com