Course: STAT4030/8030
Instructor: Dr. Jennifer Priestley – Professor of Statistics and Data Science
Office: CL3005
Office Hours: Tuesdays and Thursdays 9:00 – 11:00 (and by appt)
Center Hours: M/W 9-12 and T/Th 9-2 (CL3060)
Meeting Time: T/Th 11:00 – 12:15
Email: jpriestl@kennesaw.edu
Course Website: http://facultyweb.kennesaw.edu/jpriestl/courses/stat-4030-8030.php

Course Text: Notes will be provided to the class via the website. Other suggested texts include:

✓ The KSU R Reference Manual: A Gentle Overview of R for Undergraduate and Graduate Students. Unpublished manuscript, Kennesaw State University, Kennesaw, GA.

Course Software: This is an R Programming Course. Students are expected to have completed STAT3010 and have a working knowledge of basic applied statistics.

Course Description: Programming in R is a course in statistical computing using the R/S-Plus programming environment for data management, basic statistical analysis, and simulation. The overall objective of this course is to prepare students to use the R package in both practical statistical/quantitative applications. Topics covered include object-oriented programming, porting data, general data management, basic statistical analyses, and writing customized user-defined functions and programs.

Learning Outcomes:
Students will receive instruction in programming in R as well as in database management. By the end of the course, students will be able to:

✓ Install and update R and associated add-on packages.
✓ Perform basic object-oriented computing using vectors, factors, matrices, data frames, and arrays.
✓ Import and export data into and from R using various data file protocols.
✓ Perform basic data management tasks including recoding variables, converting data types, merging data, etc.
✓ Perform intermediate computing tasks such as using conditional processing statements, loops, and writing one's own functions.
✓ Perform basic graphing of data.
✓ Perform basic statistical modeling of data.
✓ Execute basic sentiment analysis of social media (e.g. Twitter)

Grading in this course will consist of three HW sets and a final project. In addition, all student are required to present a poster on R Day (November 18, 2016):

Grading:
HW (3 problem sets, 20% each)  60%
Final Project (in R)  40%

Note that the R Day Poster and the Final Project will require students to obtain a dataset related to an area of research/interest (the same dataset can be used for both). In this project, students will demonstrate their mastery of using R for analytics and modeling. Note that we will not provide datasets to complete these projects, and all datasets must be reviewed and approved BEFORE November 1.

Collaboration – you are free to work on your assignments together. However, every student must submit their own work (i.e. you cannot just hit print twice).

POLICIES:

ATTENDANCE. While attendance is not mandatory, students are expected to attend all class meetings. A student who misses a class is responsible for all material missed.

Withdrawal
Students who find that they cannot continue in college for the entire semester after being enrolled, because of illness or any other reason, need to complete an online form. To completely or partially withdraw from classes at KSU, a student must withdraw online at www.kennesaw.edu, under Owl Express, Student Services.

The date the withdrawal is submitted online will be considered the official KSU withdrawal date which will be used in the calculation of any tuition refund or
refund to Federal student aid and/or HOPE scholarship programs. It is advisable to print the final page of the withdrawal for your records. Withdrawals submitted online prior to midnight on the last day to withdraw without academic penalty will receive a "W" grade. Withdrawals after midnight will receive a "WF". Failure to complete the online withdrawal process will produce no withdrawal from classes. Call the Registrar's Office at 770-423-6200 during business hours if assistance is needed. Students may, by means of the same online withdrawal and with the approval of the university Dean, withdraw from individual courses while retaining other courses on their schedules. This option may be exercised up until October 8, 2016. This is the date to withdraw without academic penalty for Fall Term, 2016 classes. Failure to withdraw by the date above will mean that the student has elected to receive the final grade(s) earned in the course(s). The only exception to those withdrawal regulations will be for those instances that involve unusual and fully documented circumstances.

Academic Integrity
Every KSU student is responsible for upholding the provisions of the Statement of Student Rights and Responsibilities, as published in the Undergraduate and Graduate Catalogs. Section II of the Student Code of Conduct addresses the University’s policy on academic honesty, including provisions regarding plagiarism and cheating, unauthorized access to University materials, misrepresentation/falsification of University records or academic work, malicious removal, retention, or destruction of library materials, malicious/intentional misuse of computer facilities and/or services, and misuse of student identification cards. Incidents of alleged academic misconduct will be handled through the established procedures of the University Judiciary Program, which includes either an “informal” resolution by a faculty member, resulting in a grade adjustment, or a formal hearing procedure, which may subject a student to the Code of Conduct’s minimal one semester suspension requirement.

While I do not expect to experience any unauthorized collaboration, if there is evidence, please note that I take issues of integrity very seriously and I will do everything I can to have you dismissed from KSU and from the University System of Georgia. And, I will tell your mother.

Final Notes
This syllabus is subject to change at the sole discretion of the instructor. Any changes will be announced class-wide in a timely manner. If you have a legally-identified disability and believe you are entitled to accommodations, contact me no later than one week after a) you add the course, or b) your disability status legally changes, otherwise you elect to forfeit said accommodations.