MAT 500: Regression Analysis (Fall 2018)
Course Information (MW 3:45-5:05)

<u>Instructor</u>:   Professor H. Hyune-Ju Kim   Carnegie 304E
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                                                                  hjkim@syr.edu
                   Office Hours: M 11 a.m.-noon, T 11 a.m.-noon, and by appointment

<u>Text</u>:   Applied Linear Regression Models, Kutner, Nachtsheim, and Neter (4th Edition),
                   McGraw-Hill Irwin

<u>Course Description:</u>   This course covers the concepts, methods, and applications of regression
      analysis focusing on simple linear regression, multiple linear regression, and logistic
      regression models. Topics include parameter estimation and testing, prediction, regression
      diagnostics and model adequacy checking, variable selection and model building.

<u>Learning Goals:</u> Goals of this course would be to understand basic ideas of regression analysis,
      to learn theoretical basis of regression models and inference, and to apply them in real data
      analysis.

<u>Prerequisite</u>: MAT 331 and (MAT 222 or MAT 421 or MAT 525)

<u>Calculator</u>: You will need a calculator for the course. No specific calculator is required.

<u>Grading Policy:</u> Homework/Quizzes/Class participation (40 %)
                   Midterm Exam (30 %)
                   Final Project (30 %)

                   There will be no make-ups for any reason. If you miss a test for a valid reason
                   with supporting documents, the final will count correspondingly more.

<u>Exams</u>:   Midterm exam (October 8, 2018, Monday)

<u>Homework:</u>   Homework will be assigned and collected in class. You are encouraged to discuss
      homework problems with your classmates, but each of you are expected to write up your
      solutions independently.

<u>Final Project:</u> Data analysis project will be assigned in the middle of the semester and will be
      due on the last day of classes. The primary objective of the project is to analyze data using
      statistical software and write a report on your analysis. Detailed information about the project
      will be provided later in the semester.

 <u>Statistical Software:</u> R (statistical software) will be introduced in lecture and will be used for
      computing and data analysis. R is a free software environment that can be downloaded from
      one of the download sites listed at https://cran.r-project.org/mirrors.html . Please check
      https://www.r-project.org/ for further information.

R is available at all PC's on computer clusters and the library desktops. For additional information, see http://its.syr.edu/computer-labs/index.html and https://answers.syr.edu/display/library/Software+Available . If a student is familiar with another statistical software (e.g., SAS, SPSS, STATA), they may use that software instead of R for both the assignments and the project. In such a situation, the support which the instructor can offer might be limited. The software used must be a recognized statistical software and the student should get the instructor's permission if they choose to use a software other than R.

Attendance: You are expected to attend every class, every in-class exam/quizzes and the final exam. If you miss a class, it is your responsibility to obtain a copy of the lecture notes from another student. You are also responsible for any announcements about changes to the course schedule, the exam schedule, or the course requirements made during that class.

Students with Disabilities: If you believe that you need academic adjustments (accommodations) for a disability, please contact the Office of Disability Services (ODS), visit the ODS website– http://disabilityservices.syr.edu , located in Room 309 of 804 University Avenue, or call (315) 443-4498 or TDD: (315) 443-1371 for an appointment to discuss your needs and the process for requesting academic adjustments. ODS is responsible for coordinating disability-related academic adjustments and will issue students with documented Disabilities Accommodation Authorization Letters, as appropriate. Since academic adjustments may require early planning and generally are not provided retroactively, please contact ODS as soon as possible.

Academic Integrity: Syracuse University's Academic Integrity Policy reflects the high value that we, as a university community, place on honesty in academic work. The policy defines our expectations for academic honesty and holds students accountable for the integrity of all work they submit. Students should understand that it is their responsibility to learn about course-specific expectations, as well as about university-wide academic integrity expectations. The policy governs appropriate citation and use of sources, the integrity of work submitted in exams and assignments, and the veracity of signatures on attendance sheets and other verification of participation in class activities. The policy also prohibits students from submitting the same work in more than one class without receiving written authorization in advance from both instructors. Under the policy, students found in violation are subject to grade sanctions determined by the course instructor and non-grade sanctions determined by the School or College where the course is offered as described in the Violation and Sanction Classification Rubric. SU students are required to read an online summary of the University's academic integrity expectations and provide an electronic signature agreeing to abide by them twice a year during pre-term check-in on MySlice.

The Violation and Sanction Classification Rubric establishes recommended guidelines for the determination of grade penalties by faculty and instructors, while also giving them discretion to select the grade penalty they believe most suitable, including course failure, regardless of violation level. Any established violation in this course may result in course failure regardless of violation level. For more information and the complete policy, see http://class.syr.edu/academic-integrity/

Religious observances policy: Syracuse University's Religious Observances Policy recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holidays according to their tradition. Under the policy, students are provided an opportunity to make up any examination, study, or work requirements that may be missed due to a religious observance provided they notify their instructors no later than the end of the second week of classes. For fall and spring semesters, an online notification process is available through MySlice (Student Services -> Enrollment -> My Religious Observances) from the first day of class until the end of the second week of class. Related link: http://supolicies.syr.edu/studs/religious_observance.htm .