Course Title: Linear Models: Regression and Analysis of Variance

Course Number: QMNE 0612

Course Location: Bergen Building, Room 324

Course Date & Time: Thursday, 5:30-8:30pm

Course Instructor: J. Scott Parrott, PhD. Associate Professor, Dept of Interdisciplinary Studies, SHRP; Adjunct Professor, Dept of Quantitative Methods, School of Public Health

Office Hours: By Appointment Only

Course Assistant: None


Additional Resources: The SPSS Standard Grad Pack software is required and is available in University computer labs (for free) as well as available at onthehub.com and can be purchased as either 6 month or 12 month licenses (if you are taking IDST 6122 in the semester following this one, you may want to purchase a 12 month license). The Standard Grad pack can be purchased for either the PC or Mac.

Course Description:

General Goal: The goal of this course is to provide students with the skills needed to plan and successfully implement the data analysis phase of a quantitative linear modeling study, including the presentation and interpretation of findings.

Selected Department Competencies Addressed: Each Department identifies competencies for each degree offered. The competencies addressed in this course for the MPH (or other degrees) for the Department of ADD DEPT NAME include:

- Critically evaluate epidemiological data and findings
- Communicate results from epidemiological studies
- Demonstrate proficiency in the use of a variety of software packages used in epidemiology
- Conceptualize public health or clinical research questions using advanced quantitative method techniques

Please visit the Department webpages on the School of Public Health’s website at http://sph.rutgers.edu/ for additional competencies addressed by this course for
other degrees and departments.

**Course Objectives**: By the completion of this course, students should be able to:

- Aggregate and report data using descriptive and graphical techniques
- Identify and carry out different types of linear statistical procedures
- Build explanatory linear statistical models
- Carry out diagnostic and remediation on linear statistical models
- Report and interpret, in a format appropriate for a peer-reviewed scientific journal, the methodology and results of the linear statistical modeling

**Course Requirements and Grading**:

**Homework (70%)**: Weekly assignments are available on the designated week in the Moodle platform. Although Moodle calls these assignments “quizzes” they aren't (in the typical sense). There is no time limit (outside the weekly deadline) on the weekly assignments. You can open them as often as needed—only, do not Submit the assignment until it is complete.

**Final (30%)**: The Final assignment will be a written paper demonstrating the students mastery of statistical modeling and diagnostics.

**Course Schedule**: See the separate course schedule for topics, dates and meeting schedule: [http://moodle.rutgers.edu/mod/resource/view.php?inpopup=true&id=185108](http://moodle.rutgers.edu/mod/resource/view.php?inpopup=true&id=185108)

**School of Public Health Honor Code**: The School of Public Health Honor Code is found in the student bulletin ([sph.rutgers.edu/academics/catalog/index.html](http://sph.rutgers.edu/academics/catalog/index.html)). Each student bears a fundamental responsibility for maintaining academic integrity and intellectual honesty in his or her graduate work. For example, all students are expected to observe the generally accepted principles of scholarly work, to submit their own rather than another’s work, to refrain from falsifying data, and to refrain from receiving and/or giving aid on examinations or other assigned work requiring independent effort. In submitting written material, the writer takes full responsibility for the work as a whole and implies that, except as properly noted by use of quotation marks, footnotes, etc., both the ideas and the works used are his or her own. In addition to maintaining personal academic integrity, each student is expected to contribute to the academic integrity of the school community by not facilitating inappropriate use of her/his own work by others and by reporting acts of academic dishonesty by others to an appropriate school authority. It should be clearly understood that plagiarism, cheating, or other forms of academic dishonesty will not be tolerated and can lead to sanctions up to and including separation from the Rutgers School of Public Health.

**Policy Concerning Use of Recording Devices and Other Electronic Communications Systems**: When personally owned communication/recording devices are used by students to record lectures and/or classroom lessons, such use must be authorized by the faculty member or instructor who must give either oral or
written permission prior to the start of the semester and identify restrictions, if any, on the use of mobile communications or recording devices.