Statistics 462, Applied Regression Analysis

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This course consists of two lectures and one computer lab session per week; you are expected to attend both lectures and lab sessions on a regular basis. The Course Website is http://www.stat.psu.edu/~chiaro/Stat462_STABLE; it is crucial that you check this frequently for announcements and postings. Instructor and TA will hold regular Office Hours (times and locations posted on the site); you are strongly encouraged make use of these throughout the semester.

- **Materials:** Your main reference text is: Kutner M.H., Nachtsheim C.J. and Neter J. *Applied Linear Regression Models*, IV edition, McGrow-Hill Irwing, Boston. Additional references and useful links will be listed on the course website as needed. Selected lecture and lab materials will also be made available on the website.

- **Computing:** The statistics package used for lab sessions and homework assignments is Minitab. This is available in all Penn State Computer Laboratoriesties, and can be purchased for home use. Minitab has an excellent on-line help tool, and a good reference for it is: Ryan B., Joiner B. *Minitab Handbook*, III edition, Duxbury Press, Belmont.

- **Homework Assignments:** There will be five homework assignments, posted with due-dates on the course website. Assignments will include some theoretical questions and data analysis problems. You will be given 2-3 weeks to work on each. Your submissions should be identified with your name and the assignment number, legibly and coherently written, and not include raw computer output (only relevant output with comments). Late submissions will not be accepted, except under exceptional circumstances and with reduced grading. The lowest assignment score will be neglected in the final grade calculation.

- **Computer Lab work:** during each computer lab session, you will be given instructions to perform specific tasks and data analyses in Minitab. As you work, you will be required to prepare a short report, with relevant computer output, your comments, and answers to the questions you are instructed to address. This does not need to be exhaustive or polished, but should contain enough to show that you completed all tasks and analyses. The report (identified with your name and the lab number) will be collected at the end of each lab session or shortly thereafter. One missing report will be allowed in the final grade calculation.

- **Tests:** There will be three open-book tests covering similar amounts of material, two during the semester and one at the end. You will be given an entire class period (~50 minutes; or equivalent) to work on the tests. The lab session or lecture before each test will be devoted to review and preparation, and the one following each test to follow-up and solutions. Make up tests will be arranged only under exceptional circumstances, and should be agreed upon with the instructor at least one week prior to the test date.

- **Grading:** Homework assignments 25% (neglecting lowest score). Computer Lab work 15% (one missing report allowed). Three tests 20% each. Final grades will also take into account the instructor’s and TA’s assessment of a student’s involvement and efforts (e.g. from lecture and lab session attendance, and participation in discussions)

- **Collaborations:** You are strongly encouraged to discuss lectures, lab materials and homework assignments with one another. However, you should always submit separate and individually written homework assignments and computer lab reports (giving proper credit to one another if needed), and should not communicate with one another during tests.

All Penn State and Eberly College of Science policies regarding academic integrity apply to this course. For details, see http://www.science.psu.edu/academic/Integrity/index.html.

The Eberly College of Science Code of Mutual Respect and Cooperation embodies the values that we hope our faculty, staff, and students possess and will endorse to make the Eberly College of Science a place where every individual feels respected and valued, as well as challenged and rewarded. See http://www.science.psu.edu/climate/code-of-mutual-respect-and-cooperation-1/Code-of-Mutual-Respect%20final.pdf.