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. Class Lectures, Lab Activity Sheets, announcements and other relevant materials will be posted on the Course Angel Site and/or circulated through Angel email; you should check these frequently. 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, McGraw-Hill Irwing, Boston. Additional references and useful links will be provided on the course site as needed. Class Lecture and Lab Activity Sheets will also be made available on the site.

- **Computing:** The statistics package used for lab sessions and homework assignments is Minitab. This is available in all Penn State Computer Laboratories, 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 site. 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, which will be recorded, and participation in discussions)

- **Collaborations:** You are encouraged to discuss lectures, lab materials and homework assignments with one another. However, homework assignments and computer lab reports should always be written up on your own, giving proper credit to one another if needed. Also, you should not communicate, exchange information with one another, or use other people’s materials during tests.
Important policies and rules of conduct that apply to this course:

- All Penn State and Eberly College of Science policies regarding academic integrity apply to this course. Academic integrity is the pursuit of scholarly activity free from fraud and deception and is an educational objective of this institution. Academic dishonesty includes, but is not limited to, cheating, plagiarizing, fabricating of information or citations, facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students. For any material or ideas obtained from other sources, such as text or things you obtain on the web, in the library, etc., a source reference must be given. Direct quotes from any source must be identified as such. All exam answers must be your own, and you must not communicate with or provide assistance to other students during exams. Any instances of academic dishonesty WILL be pursued under the University and Eberly College of Science regulations concerning academic integrity.

- Penn State welcomes students with disabilities into the University's educational programs. Every Penn State campus has an office for students with disabilities. The Office for Disability Services (ODS) Web site provides contact information for every Penn State campus: http://equity.psu.edu/ods/ods. For further information, please visit the Office for Disability Services Web site: http://equity.psu.edu/ods.

- 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.