STAT 480 (Spring 2005) – Course Syllabus

Instructor: Eli Walters, 409 Thomas Bldg., 865-6552, ewalters@stat.psu.edu.

Please e-mail me directly. I do not typically check ANGEL for messages from students.

Meeting Times: Tuesday, 10:10 – 11:00 AM in 064 Willard

Office Hour: Monday, 11:10 AM – 12:10 PM (or by appointment)

Please feel free to e-mail your questions. However, if you need to meet with me and cannot make this office hour because of conflict with other classes or obligations, please e-mail me so that we can set up another time.

TA: Wei Zhang, 301 Thomas, 863-2314, wuz108@stat.psu.edu, **Hour: R 2:30 – 3:30**

Text: *Applied Statistics and the SAS Programming Language*, Fourth edition, Ronald Cody and Jeffrey Smith, Prentice Hall. (**Only recommended, NOT REQUIRED!**)

Goals: This course is designed to develop general statistical programming skills using the SAS language. SAS works identically on numerous operating systems. Since we are only meeting once a week, **I will not post the homework assignments on ANGEL** as an effort to encourage attendance. **You must come to lecture** to obtain a copy of the homework (or find a creative way to get one).

Academic integrity: The academic integrity policy of the Eberly College of Science will apply to this course. See www.science.psu.edu/Integrity/index.html .

Grading Scheme and Breakdown: The grading scale for the course is as follows. Any changes should only be ones that will benefit you! Note that the grader will be grading all assignments and exams.

A :	93%
A-:	90%
B+:	87%
B :	83%
B-:	80%
C+:	77%
C :	70%
D :	60%
F :	Below 60%

Homework Assignments:	40%
Midterm Examination:	30%
Final Examination:	30%

Homework: There will be a homework assignment given nearly every week. Each assignment will require you to turn in your SAS code, SAS output, and answers to the assignment. The homework assignments ***must*** be typed. In order to cut down on the amount of paper you turn in, you may copy your SAS output into a Word document (or whatever program you prefer) and downsize the font. Homework will usually be due the following week in class.

Exams: There will be a midterm about halfway through the semester and a final during the last week of the semester. At least part of each exam will be taken in class. They may also involve a take-home portion. **(Midterm: February 22, Final: April 26)**

Lectures: All homework assignments and exam questions will be based on the content of the Powerpoint lectures, **which I will post on ANGEL**. I plan on lecturing for 40-45 minutes each class period. I will then hand out a homework assignment which will provide practice using the programming concepts covered in lecture. You will have the last few minutes of the class period to read over the homework and ask any initial questions.

Topics:

- Options
- Data Entry (data w/in program and from a file)
- Data Manipulation
  - Concatenating, Appending, Merging, etc.
  - WHERE and IF/THEN
- Functions
  - PUT, INPUT, SUM, MIN, MAX, etc.
- Do-Loops
- Arrays
- Descriptive Statistics
  - PROC MEANS, UNIVARIATE, FREQ, CHART, GCHART
- Chi-Square
- T-tests
- Regression
- Correlation
- ANOVA (Balanced and Unbalanced)