STT 411/511-001 Design of Experiments and Analysis of Variance
Spring 2012

Instructor: Dr. Susan Simmons
Office: BR 211 B
Office Hours: MW 9:00-10:00 am, TTH 1:00-2:00 pm, or by appointment
Office Phone: 962-3296
Email: simmonssj@uncw.edu
Website: http://people.uncw.edu/simmonssj

Required Text: *Design and Analysis of Experiments 7th Ed*, by Douglas Montgomery
Computer Software: SAS/R

Course Topics: Review of statistical concepts, contrasts, single factor design, randomized block design, factorial design, random effects model

Grading:

Homework	30%
Midterm	25%
Final Exam	30%
Project	15%

A	90 – 100%	D	60 - 69.9%
B	80 – 89.9%	F	below 60%
C	70 – 79.9%		

It is possible to get pluses and minus.

Prerequisite: Any introductory statistics course. However, the class will use the SAS software for most of the analysis.

Homeworks: Homework is an essential part of this course and will be given on a regular basis. Many of the homework assignments will involve both written and computer parts.

Attendance: Attendance in the classroom is expected. Excessive absences may result in a grade penalty.

Exams: There will be one midterm given on March 1 and the final is Tuesday, May 8 from 3:00pm -6:00 pm.

Academic Honor Code: In accordance with the academic honor code at the University of North Carolina at Wilmington, no form of dishonesty, such as cheating, stealing, plagiarism, etc., will be tolerated (see *UNCW Code of Student Life* and the *Undergraduate Catalog* for further details).

Disability Services: The University of North Carolina at Wilminton has devoted much energy to meeting the requirements of Section 504, Federal Rehabilitation Act and to the Americans with Disability Act. If you feel you need assisstance or accomodations to ensure equal opportunities in pursuing your educational goals, please contact Disability Services at extension 3746.

Harrassment Policy: UNCW practices a zero-tolerance policy for violence and harassment of any kind. For emergencies contact UNCW CARE at 962-2273, Campus Police at 962-3184, or Wilmington Police at 911. For University or community resources visit http://uncw.edu/wrc/crisis.htm

The UNCW Statement on Diversity in the University Community:

As an institution of higher learning, the University of North Carolina Wilmington represents a rich diversity of human beings among its faculty, staff, and students and is committed to maintaining a campus environment that values that diversity. Accordingly, the university supports policies, curricula, and co-curricular activities that encourage understanding of and appreciation for all members of its community and will not tolerate any harassment or disrespect for persons because of race, gender, age, color, national origin, ethnicity, creed, religion, disability, sexual orientation, political affiliation, marital status, or relationship to other university constituents. Students with Disabilities information and resources available at http://www.uncw.edu/stuaff/disability/

Zero Tolerance Policy:

UNCW practices a zero tolerance policy for violence and harassment of any kind. For emergencies contact UNCW CARE at 962-2273; Campus Police at 962-3184; or Wilmington Police at 911. For University or community resources visit: http://www.uncw.edu/safe-relate/campusResources.htm. Violence prevention information and resources available at http://www.uncw.edu/safe%2Drelate/. We will focus several class discussions on the importance of reducing violence and increasing tolerance in schools and at UNCW.

Cell Phones, PDAs, Laptops:

Please silence your cell phone and do not make calls, access applications or text during class. If you have a personal, urgent matter for which you need to be on call, please let me know in advance. In addition, please do not have active any PDAs or laptops/netbooks/iPads open and active unless the activity warrants. We will use these devices in selected activities and they are permissible then.

Undergraduate/Graduate:

To distinguish between STT 411 and STT 511, there will be more work on exams for STT 511 and students in STT 511 must present their projects in class.

Important Dates:

January 11	Classes begin
January 16	Martin Luther King, Jr. Day, No classes
January 18	Last day for registration/Last day to drop
March 1	Midterm Exam
March 12-16	Spring break, No classes
April 5-6	Easter Break, No classes
April 30	Last day of classes, project due
May 8	Final exam at 3:00 pm

Student Learning Outcomes:
Students should be able to
Use statistical software to perform appropriate analysis
Be able to read and interpret output from statistical software
Perform inferences on the differences in means, randomized designs (equal variance and unequal variance)
Perform inferences on the differences in means, paired comparisons
Perform analysis of variance with a single factor (fixed effect)
Perform post-hoc comparisons
Check assumptions of model
Perform nonparametric analysis of variance
Perform analysis on randomized complete block design and analysis
Perform analysis on factorial designs
Perform analysis on random effect designs