Syllabus
STAT 674-0001 Design & Analysis Experiments
Northern Illinois University Spring, 2015

Instructor: Duchwan Ryu
Office: 361E  Office Hours: MW 1-2 (feel free to 'drop in')
Phone: 815-753-6858  E-mail: dryu@niu.edu

Class: MW 2:00 pm - 3:15 pm (3 credit hours) at DuSable Hall 322


References:


Course Description: This is an intermediate course in the design and analysis of experiments. If time permits, we will cover topics such as Simple Comparative Experiments, Analysis of Variance, Randomized Blocks, Latin Squares; Factorial Designs, Blocking and Confounding, Response Surface Methods, Nested and Split-Plot Designs.
PRQ: STAT 572 and STAT 574, or consent of division.
Intended Learning Outcomes:

- To appreciate the values of experimental design in statistical inference
- To develop an understanding of concepts in experimental design
- To develop SAS programming skills for analyzing experimental data
- To develop analytical and statistical problem solving skills
- To prepare in both theoretical and practical skills for statistical consulting

Assessment:

- Homework: Light homework will be assigned on every other Wednesday.
- Exams: There will be mid-term (in class) and final exams (take home).
- Grade: The course grade A, A-, B+, B, B-, C+, C, C-, D and F will be based on Homework (%30), Mid-term (%30) and Final (%40).

Course Resources: Course website on Blackboard will be noticed.

Course Policies:

Generally students are expected to attend the lectures, as the covered materials may not be chosen straightly from the textbook. In the case of an absence, please be advised that the student assumes the responsibility for anything that (s)he fails to receive from the lecture. Late assignments are accepted but late final project is not accepted. Students are expected to work on the exams independently. Violation of the rules will be handled according to NIU policies. The acceptance of a make-up exam will be determined based on each individual case, if there is a legitimate reason such as a medical emergency. Proof of the event needs to be provided. A make-up exam is intended to be similar in terms of difficulty, but the instructor could not guarantee the student would have the same perspective.
Accessibility: Northern Illinois University is committed to providing an accessible educational environment in collaboration with the Disability Resource Center (DRC). Any student requiring an academic accommodation due to a disability should let his or her faculty member know as soon as possible. Students who need academic accommodations based on the impact of a disability will be encouraged to contact the DRC if they have not done so already. The DRC is located on the 4th floor of the Health Services Building, and can be reached at 815-753-1303 (V) or drc@niu.edu.

Academic Integrity: Policies on Academic Integrity, Attendance and Accessibility statement is available at http://www.niu.edu/stat/courses/pdfs/Accessibility_Statement.pdf.

Proposed Course Schedule:

Weeks 1-7    : Simple Comparative Experiments, Analysis of Variance, Randomized Blocks, Latin Squares
Weeks 8      : Mid-term
Weeks 9-14   : Factorial Designs, Blocking and Confounding, Response Surface Methods, Nested and Split-Plot Designs
Weeks 15     : Final Project (May 4th)