

Math/Stat 571B

Section 1 TTh 3:30-4:45pm, OPTI 432
Spring 2009

Instructor: Marek Rychlik, Professor of Mathematics
Office: OPTI 432 or MATH 605
Office Hours: TTh 4:50-6:00pm
Phone: 621-6865
Email: rychlik@u.arizona.edu
Instr. Webpage: <http://alamos.math.arizona.edu>
Blog: <http://marekrychlik.com>
Course Webpage: <http://alamos.math.arizona.edu/MathStat571B>

GENERAL INFORMATION

Course Description (from the Schedule of Classes): Principles of designing experiments. Randomization, block designs, factorial experiments, response surface designs, repeated measures, analysis of contrasts, multiple comparisons, analysis of variance and covariance, variance components analysis. **Grading:** Regular grades are awarded for this course: A B C D E. **Prerequisites:** MATH 223 or equivalent, MATH 571A.

Text: Design of Experiments: Statistical Principles of Research Design and Analysis, Second Edition, Robert O. Kuehl, Duxbury Press, ISBN 0-534-36834-4.

Attendance: Students are expected to attend every scheduled class and to be familiar with the University Class Attendance policy as it appears in the General Catalog. It is the students responsibility to keep informed of any announcements, syllabus adjustments or policy changes made during scheduled classes. Students are expected to behave in accordance with the Student Code of Conduct and the Code of Academic Integrity. The guiding principle of academic integrity is that a student's submitted work must be the student's own. University policies can be found at <http://dos.web.arizona.edu/uapolicies>. Students who miss the first two class meeting will be administratively dropped unless they have made other arrangements.

Homework, Projects and Experiments: Homework and projects will be assigned throughout the semester. Homework counts for 30% of the grade and projects count for 30% of the grade. Homework will generally be assigned on weekly basis, and will be graded individually. Generally, the homework will involve the use of the statistical software R. This will require general proficiency in using computer, software and moderate skills specific to R. Prior knowledge of R is not required. General proficiency in using computer and ability to install and use software is requires. The assignments will require moderate skills specific to R. The R instruction in class will be limited, and some amount of independent study using commonly available resources may be necessary.

There will be several group projects, which will involve using R. Some of the projects involve an experiment followed by aquisition and tabulation of data, and processing with R.

In-Class Exams: There will be one in-class midterm and one final. The midterm is worth 15% of the grade and the final is worth 25% of the grade. The midterm is scheduled for February 12, 2009. The final exam is scheduled according to the Schedule of Classes, for May 12, 2:00-4:00pm.

The Universitys Exam regulations for final exam week will be strictly followed. The regulations can be found at <http://www.registrar.arizona.edu/schedule081/exams/examrules.htm>.

Missed exams: Students are expected to be present for all exams. If a verifiable emergency arises which prevents you from taking an in-class exam at the regularly scheduled time, you must notify your instructor as soon as possible, and in any case, prior to the next regularly scheduled class. Make-up exams will be administered only at the discretion of the instructor. If a student is allowed to make up a missed exam, (s)he must take it at a mutually arranged time. No further opportunities will be extended. Failure to contact your instructor as stated above or inability to produce sufficient evidence of a real emergency will result in a grade of zero on the exam.

Software: Free, open source program R will be used in the instruction and assignments. Some of the assignments may be done using other software, such as SAS, when specifically indicated by the instructor.

ADDITIONAL COURSE POLICIES

Students with disabilities: If you anticipate issues related to the format or requirements of this course, please meet with your instructor to discuss ways to ensure your full participation in the course. If you determine that formal, disability-related accommodations are necessary, it is very important that you be registered with Disability Resources (621-3268; drc.arizona.edu). You should notify your instructor of your eligibility for reasonable accommodations by January 30, 2009. You and your instructor can then plan how best to coordinate your accommodations.

Students withdrawing from the course: If you withdraw from the course by February 10, the course will be deleted from your enrollment record. If you withdraw from the course by March 10, you will receive a grade of W. The University allows withdraws after March 10, but only with the Deans signature. Late withdraws will be dealt with on a case by case basis, and requests for late withdraw with a W without a valid reason may or may not be honored.

Incompletes: The grade of I will be awarded if all of the following conditions are met:

- (1) The student has completed all but a small portion of the required work.
- (2) The student has scored at least 50
- (3) The student has a valid reason for not completing the course on time.
- (4) The student agrees to make up the material in a short period of time.
- (5) The student asks for the incomplete before grades are due, 48 hours after the final exam.