

Probability and Statistics for Engineers

Instructor:	Lyudmila Sakhanenko
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Prerequisite:	MTH 234
Class Meetings:	M W 5:00 - 6:20, C-104 Wells Hall
Office hours:	M W 4:00-4:55 and by appointment
Webpage:	http://www.stt.msu.edu/courseinfo/classpages/classpage.aspx?course=1480
Statistics Help Room:	C-100 Wells Hall, Hours TBA

Text: *Probability and Statistics for Engineering and the Sciences*, by J. Devore. Seventh edition.

Course Objectives: Statistics is a discipline that supports research and development; its methods help scientists and engineers answer questions in the face of variability. In STT 351, students are exposed to models and methods that are used in engineering disciplines, applied research and industry. Continuous themes are the importance of quality data, the careful use of terms, and the clear presentation of statistical information and analysis.

The course will cover Chapters 1 through 10, Chapter 12, and Chapters 14, 16 if time permits. We will make use of computers where they will help to improve our understanding of fundamental concepts of the course, or where they will perform tedious calculations quickly. We will use applications from the statistical package MINITAB.

Examinations and Quizzes: There will be **six** 15-minute quizzes worth 20 points each given during the semester. The lowest quiz score will be dropped. Quiz questions will be similar to homework problems and the examples worked out in class. The quiz dates are:

Quiz 1: September 14 Quiz 2: September 23
 Quiz 3: October 5 Quiz 4: October 26
 Quiz 5: November 9 Quiz 6: December 2

There will be **two** 80-minute Midterm Exams worth 100 points each given during lecture time. The exam dates are:

Exam 1: Monday, October 19
 Exam 2: Monday, November 23

There will be a comprehensive **Final Exam** worth 150 points on Thursday, **December 17, 5:45-7:45 p.m.**

If you are unable to take an exam, you must contact the instructor on or before the day of the exam. All excuses must be verifiable. The make-up exams and quizzes will be given only under exceptional circumstances.

Homework: **Five** homework assignments worth 20 points each, will be given during the semester as we cover the corresponding material. Some of the problems will involve using the statistical software package MINITAB. The tentative homework due dates are:

HW 1: September 21 HW 2: October 7 HW 3: November 2
 HW 4: November 16 HW 5: December 7

In addition, during each class some reading and suggested homework problems from the text will be assigned. These problems will not be collected. However, **it is essential that you work them out.**

Course Grade: The final course grade will be based on the total number of points earned by a student during the term in

Quizzes	$5 \times 20 = 100$ points
Homework	$5 \times 20 = 100$ points
Midterm Exams	$2 \times 100 = 200$ points
Final Exam	150 points
Total	550 points

The grading scale will be as follows:

Points Earned	Grade	Points Earned	Grade
500 - 550	4.0	380 - 409	2.0
470 - 499	3.5	330 - 379	1.5
440 - 469	3.0	280 - 329	1.0
410 - 439	2.5	0 - 279	0.0

Important Dates:

Classes begin	9/2/09
Labor Day (no classes)	9/7/09
End of 100% refund	9/28/09
Middle of the semester	10/21/09 (last day to drop with no grade reported)
Thanksgiving Holiday (no classes)	11/26/09 and 11/27/09
Last day of classes	12/11/09

Policies:

Attendance: Attendance in the lectures is required. You are responsible for any materials covered in classes that you miss.

Academic Honesty: The Department of Statistics and Probability adheres to the policies of academic honesty as specified in the General Student Regulations 1.0, Protection of Scholarship and Grades, and in the all-University of Integrity of Scholarship and Grades, which are included in Spartan Life: Student Handbook and Resource Guide. Students who plagiarize may receive a 0.0 on the assignment or fail the course.

To arrange for accommodation, students with disabilities should contact the Resource Center for People with Disabilities (353-9642).

The instructor reserves the right to make changes she considers academically advisable. Such changes, if any, will be announced in class. Please note that it is your responsibility to attend the class and keep track of the proceedings.