ELEMENTS OF STATISTICS
SPRING SEMESTER 2010
Course Syllabus
Math 106
Section 1: MWF 9:10-10:00 Peirce Hall L09
Section 3: MWF 10:10-11:00 Peirce Hall L09

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Course website: www2.kenyon.edu/Depts/Math/Kalaycioglu/

I am eager to meet with you outside of class for additional help. I have an open door policy, which means that if you can not make it to any of the office hours you are always very welcome to come in to my office whenever my door is open. Please take advantage of this policy.

Required Textbook:

Statistics, The Exploration and Analysis of Data 6th Edition by Roxy Peck and Jay Devore

Goals:

- Develop Statistical and Quantitative Reasoning Skills
- Introduce Stat Methods
- Introduce Statistical Software

Statistical Package:

There will be a considerable amount of work done with the aid of the software package MINITAB, that is available at all LAN sites on campus and will be used throughout the course. Assignments and course announcements will be sent to you via e-mail or posted on the course web page. Data sets and Minitab worksheets will be placed in P:\Data\Math\STATS. Proper maintenance of computer accounts, files, etc. is your responsibility. I recommend that you back up your data sets and Minitab worksheets on a regular basis. I will not assume you have prior experience with statistical software so you do not need to be concerned about the use of technology in the classroom. All that you need to know about Minitab will be covered in class. I can assure you that Minitab is very easy to learn and use, and its ease is matched with the power to do many of the basic statistical analyses.

Homework & Labs:

Homework and lab assignments will be given throughout the semester. Homework will be collected at least once a week and will be graded frequently. You should work on as many problems as possible. This includes problems which have not been assigned. All papers that you turn in must be legible with problem numbers and solutions clearly marked. I encourage you to discuss the concepts and problem solving techniques presented in class with other students. However, you must submit your own solution for each of the assigned problems to be collected. Most of the data sets from the textbook are available on P:\Data\MATH\STATS\Peck-Devore-Data\Minitab format. Your two lowest homework score will be dropped and the remaining scores will be averaged to obtain your homework percentage.

Practice is a primary component of the mathematical learning process; thus homework problems will be assigned on a daily basis. But beyond just providing practice, the problems I assign are meant to be *extend* and *deepen* the understanding you have gained from the reading and the class period. The problems are not always easy, but the thought that goes into them always pays off in the long run. All of this means that much of the learning you do will be done outside of the classroom, but it doesn't mean that when class is dismissed you are on your own. I strongly recommend that you start on the homework as soon after class is over as possible. That way, if (when?) you get stuck on an assignment you can come to see me and get help *before* it is due.

Homework Policies:

- Homework is due at the start of class on the assigned due date. **No late assignments will be accepted.** The two lowest homework grades will be dropped before the calculation of the final homework average. In addition, assignments that are not turned in due to illness or other unexpected absences will be dropped if the absence is excused. If you have advance notice that you will be absent (whether or not the absence is excused) I expect you to make arrangements to turn in the assignment early or to have someone turn it in for you. (For example, sporting events, your sister's wedding, religious holidays, etc.)
  Homework may involve hand-written computations and explanations, as well as computer exercises. Your homework should be legible, with problem number and final answer clearly indicated. Explanations in complete sentences are expected. Random math expressions floating in space will receive no credit.
- You may discuss homework problems with others (including, but not limited to, your classmates) but whatever you submit **must** be your own work and understanding.
- Homework will be evaluated for neatness, completeness and correctness. Messy work that is difficult to read may receive no credit. Please make sure that you staple all the pages, with the cover sheet on top and your name neatly written on the cover sheet.

Short Quizzes:

In-class quizzes are intended to provide practice for the exams and to give students feedback on how well they know the most important core topics of this course. If a student has a weakness in a particular area, it is better to find out on a quiz rather than on an exam. There will be approximately four in-class quizzes, that will be announced a week in advance. The quizzes will usually be about 15 minutes long and will consist of an exam-like question or two on core course topics. I will delete your lowest quiz score before calculating your final course average.

Class Participation and Activities:

It is important that all students be engaged in class discussions, group work, and activities. Therefore, this component of your grade is based on attendance, participation in class discussions and in-class lab activities, good teamwork in group activities, your presentation of problems to small groups or the class.

Short Papers:

Throughout the semester you will be assigned a partner to work on at least three short papers (2-4 pages). Each paper will contain a discussion of a current news item that you might find interesting whose understanding requires a knowledge of statistics or probability. During the semester you will be given more information about some sources that might be useful for finding interesting topics for the short papers.

Exams:

There will be two midterm exams, and one comprehensive final exam. The dates of the exams will be announced and posted on the course website shortly after the semester starts.
The final exam is comprehensive and the dates are as follows:
MWF 9:10-10:00 class: May 11, 6:30-9:30 pm
MWF 10:10-11:00 class: May 10, 1:30-4:30 pm

Grades:

Final grades will be determined based on the performance in the following components.

Daily homework and lab assignments	20% of the final grade
Short papers	10% of the final grade
Quizzes	15% of the final grade
Class Participation and Activities	5% of the final grade
Exam 1	15% of the final grade
Exam 2	15% of the final grade
Final exam	20% of the final grade

Attendance Policy:

Learning mathematics is greatly enhanced through active participation in mathematical discussions and small group activities. To fully take advantage of these modes of learning, it is essential that you attend class. You will be expected to attend and be on time for each class meeting. Please make an effort to come to class on time. A student who misses a class meeting will be held responsible for the material covered and any assignments or announcements that were given. Due to the nature of the course, a failure to fulfill these expectations will result in a lower course grade.

Course Material:

The following is roughly ordered chapter list. Some sections may be ommitted or added, and some sections may not require written homework.
Chapter 1: Sections 1, 2, 3, and 4
Chapter 3: Sections 1, 2, 3, 4, and 5
Chapter 4: Sections 1, 2, 3, 4, and 5
Chapter 5 Sections 1, 2, 3, 4, and 6
Chapter 2 Sections 1, 2, 3, 4, 5, and 6
Chapter 6 Sections 1, 2, 3
Appendix A
Chapter 7 Sections 1, 2, 3, and 4
Chapter 8 Sections 1, 2, and 3
Chapter 9 Sections 1, 2, 3, and 4
Chapter 10 Sections 1, 2, 3, 4, 5, and 6
Chapter 11 Sections 1, 2, 3, and 4
Chapter 12 Sections 1, 2, and 3
Chapter 13 Sections 1, 2, 3, 4, 5, and 6
Chapter 15 Sections 1, 2

Other important facts:

Computer and Cell Phone Use Policy in the Classroom: Inappropriate use of computers in the classroom is strictly prohibited and will not be tolerated. Inappropriate use of computers is anything unrelated to the classwork. Some examples are checking/writing e-mail, surfing the net, playing games, instant messaging etc. Please make sure that your cell phone is off during the class time.
Academic Honesty: The rules set forth in the 2009-2010 Course of Study apply to all aspects of this course. In general, any work submitted for credit must result directly from your own understanding, thoughts, and ideas. Presenting the work of others as your own is strictly prohibited. Though you are encouraged to work with other students on outside assignments, it is understood that every piece of written or computer-generated work that you submit must finally be your own. If the assignment is a group assignment, the members of the group should contribute equally to writing the final product---in other words, don't put your name on a paper written by others. For further information, consult the student handbook or ask your instructor.
Disabilities: If you have a physical, psychological, medical or learning disability that may impact your ability to carry out assigned course work, feel free to discuss your concerns in private with me, but you should also consult the Office of Disability Services at 5453. The Coordinator of Disability Services, Erin Salva (salvae@kenyon.edu), will review your concerns and determine, with you, what accommodations are appropriate. (All information and documentation of disability is confidential.) It is Ms. Salva that has the authority and the expertise to decide on the accommodations that are proper for your disability. Though I am happy to help you in any way I can, I cannot make any special accommodations without proper authorization from Ms. Salva.
If you are an athlete or part of an organization that travels: Attendance and participation are critically important for this class. If you are an athlete (e.g., a soccer player, a football player, field hockey player, swimmer, etc.), or if you belong to a group or club that travels (e.g., the Debate Team), and if you know you will be missing more than three classes, it is very important that you meet with me early in the semester to let me know which classes you will be missing and how you plan to meet class deadlines, make up missed work, and so forth.