

INTRODUCTION TO THE PRACTICE OF STATISTICS

Stat 145

Autumn 2006 Syllabus

Instructor: Dr. Jackie Miller
Office: 122 Cockins Hall
Office Hours: MWF 9:30 – 10:18 a.m.
Or by appointment
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Required:

Text: *Intro Stats* (2nd edition), by Dick DeVeaux, Paul Velleman, and Dave Bock
Course Notes: *Statistics 145 Course Notes and Recitation Manual 2006-2007*, by Jackie Miller

Optional: Student Solutions Manual for *Intro Stats*, by William Craine

Website: Please visit <http://telr.osu.edu/carmen/>. Check Carmen periodically for announcements about the class and other class material.

Course Goals: This course satisfies the learning goals of the GEC Data Analysis requirement. In particular, in Statistics 145 students are expected to learn

Skills

- To produce convincing oral and written statistical arguments, using appropriate terminology.
- When and how to use technology to aid them in solving statistical problems.

Knowledge

- Essential techniques for producing data (surveys, experiments, observational studies), analyzing data (graphical and numerical summaries), modeling data (basic probability, sampling distributions), and drawing conclusions from data (inference procedures – confidence intervals and significance tests)

Habits of mind

- To become critical consumers of published statistical results by heightening their awareness of ways in which statistics can be improperly used to mislead, confuse, or distort the truth.

Homework: There are a total of eight homework assignments, seven of which are due at various times during the quarter. Homework exercises and due dates are listed at the end of the syllabus. I highly suggest that you try the exercises from each section as we encounter these sections in class—waiting until the night before homework is due will not help you learn the material.

Turning in Homework: Homework must be turned in by 5:00 p.m. on the due date. It is preferable to turn in your homework in recitation, but you may also drop your homework assignment in the Stat 145 drop box outside 413 Cockins Hall (the box is the one to the left of the door). Make sure that “Stat 145” and your TA’s name are on any homework assignments that you put in the drop box. **Failure to put your TA’s name on an assignment put in the drop box and/or placing it in the wrong drop box may result in the assignment not being given to your TA and thus counted as a zero for that assignment.**

For security reasons and your protection, when you turn in homework, you should write your name in pen on each page submitted and staple all pages together. For homework assignments submitted close to a quiz or test date, I suggest that you make a copy of your work so that you can compare your work to the posted solutions.

No late assignments will be accepted—in extreme circumstances, individual arrangements can be made with your TA. Solutions to homework assignments will be posted on the course website.

Quizzes: There will be two quizzes during the quarter. Quizzes will be given during recitation. The first quiz will be given **Thursday, October 5th** or **Friday, October 6th**, and the second quiz will be given on **Tuesday, November 14th** or **Wednesday, November 15th**. Following a review session in recitation, you will be given approximately 20-25 minutes to take each quiz during that recitation period. Statistical tables will be provided as needed.

Exams: There will be one midterm exam during the quarter as well as a two-hour final exam. The final exam will be comprehensive with an emphasis on those topics covered after the midterm. Statistical tables will be provided as needed. Calculators may be used on the midterm and final exams.

Common Midterm: Wednesday, October 18th, 5:30 – 6:18 p.m. (Postle Hall rooms)

Common Final Exam: Monday, December 4th, 5:30 – 7:18 p.m. (Postle Hall rooms)

If you have a work or class conflict with the scheduled time for the midterm or final exam, please let me know in writing (email is fine) as soon as possible so that we can make alternative arrangements.

Notes for use on the quizzes and exams: You may use one 3 x 5 inch note card (both sides), with whatever facts, formulas, or explanations you find helpful, on each quiz. One 8.5 x 11 inch sheet of paper (both sides), with whatever facts, formulas, or explanations you find helpful, may be brought to the midterm exam. Two sheets of paper (as described for the midterm) may be brought to the final exam.

Missing a quiz or the midterm: If you know ahead of time that you cannot be there for a quiz or the midterm, make arrangements with your TA to take the quiz or midterm prior to the date it was scheduled. If you miss a quiz or midterm and have not made prior arrangements with your TA, you can request that the percent of your grade from the assessment you missed be added to the percent for your final exam. (For example, if you miss Quiz 1 and follow the instructions below, your final exam will count for $10\% + 30\% = 40\%$ of your grade.) Note: This only applies to **one** missed quiz or midterm—this does not apply to missed homework assignments and will not apply to more than one missed quiz or midterm.

All requests must have valid excuses and must be submitted in writing (email is fine) as soon as possible and signed off on by Dr. Miller. If you do not make arrangements with Dr. Miller, you will receive a zero for that assessment. In other words, this will not automatically be done for you. Please recognize that making your final count for more of the course places an extra burden on you to perform well on the final exam.

Re-grade policy for quizzes and the midterm: If you have a question about the grading of a quiz or your midterm, you may file an appeal with me. An appeal consists of a neatly written or typed note on 8.5 x 11 paper attached to your quiz or exam that explains what Dr. Miller should consider. All appeals must be filed with Dr. Miller within one week of receiving your quiz or exam back from your TA.

Full credit on homework and exam problems: You need to show your justification for or work on each homework or exam problem. Answers without work will **not** receive full credit.

Final Grade:

Your final course grade will be based on the following weighting of assessment components:

Quiz 1 (Ch 1-5)	10%
Quiz 2 (Ch 6, 18-21)	10%
Midterm (Ch 1-5, 12-15)	20%
Final exam	30%
Homework	20%
Recitation participation	10%

The participation portion of your grade will be determined by your TA based on both attendance at and participation in recitation.

Final course grades will be assigned based on the following grading scale:

	B+	87 – 89	C+	77 – 79	D+	67 – 69	
A	93 – 100	B	83 – 86	C	73 – 76	D	60 – 66
A-	90 – 92	B-	80 – 82	C-	70 – 72	F	below 60

Additionally, you cannot get a final course grade lower than one letter grade below what you earned on your final exam. (For example, if you have a D going into the final exam and score 88% (a B+) on the final exam, you cannot get a grade lower than a C+.) This does not apply in reverse—doing poorly on the final exam will lower your course grade.

Calculators: A calculator (with statistical functions) may be used for homework, quizzes, and exams. I highly recommend a TI-83 Plus, TI-84 Plus, or TI-89 calculator. The course website has instructions on using the TI-83/84 and the TI-89 for some of what we will do in this course.

Attendance and Participation: Attendance is essential if you wish to do well in this course. Class participation is encouraged and appreciated. The more participation from each of you, the more interesting the class will be.

How to do well: Attend every class meeting. Do homework exercises as we discuss the concepts. If you get stumped on a homework exercise, set it aside, go on, and return to that exercise later. Ask questions as soon as you have them. The material builds on itself throughout the quarter, so waiting to ask questions will compound any confusion you may be feeling. Certainly waiting until the day before the exam to ask questions will not help you to learn the material. Additionally, there will always be the assumption that you have read the material prior to coming to class.

Study Rooms and Help Hours: Our TAs hold office hours in 130 Cockins Hall starting the second week of classes. You are welcome to talk with any TA in the tutor room any time the tutor room is open. Specific hours for the tutor room and for the Statistics 145 TAs will be posted on Carmen.

Responsibility: The bottom line is that you are responsible for your own learning. I am here solely to facilitate your learning and understanding of the discipline of statistics. I will help as much as I can, but learning the material is ultimately up to you.

Academic Misconduct: Please help us to maintain an academic environment of mutual respect, fair treatment, and personal growth. You are expected to produce original and independent work for quizzes and exams. Although students are often encouraged to work together on homework assignments, all students must submit their own written work in their own words. Academic misconduct **will not be tolerated** and will be dealt with procedurally in accordance with University Rule 3335-31-02. (This policy can be found at <http://oaa.osu.edu/procedures/1.0.html>.)

Cell phones: Cell phones must be either turned off or put on vibrate during class, as cell phones ringing during class disrupt the learning process. Additionally, no cell phone calculators will be allowed on any quizzes or exams in the course. Note: This applies also to PDAs with communication capabilities.

E-mail Correspondence: In order to protect your privacy, all course e-mail correspondence must be done through a valid OSU name.nn account. If you have not activated your OSU email account, you can activate your account at <https://acctmgmt.service.ohio-state.edu/cgi-bin/KRB1EntryAdd>.

Special Accommodations: All students who feel they may need accommodations based on the impact of a disability should contact the instructor privately to discuss their specific needs. Students with documented disabilities must also contact the Office of Disability Services (ODS) in 150 Pomerene Hall (phone: 292-3307) to coordinate reasonable accommodations for the course. ODS forms must be given to your instructor as early in the quarter as possible to be filled out and returned to you.

Course Admission and Section Changes: ADD and SECTION CHANGES handled by our department staff after BRUTUS closes. Students should go to 405C Cockins Hall and speak with Patty Shoults beginning Tuesday, September 26th. The instructor and TAs do not sign paperwork associated with course registration.

Course policy on unpaid fees and students not registered: Students with unpaid fees at the time of the midterm need to talk to their instructor as soon as possible in order to continue their attendance. If you are not officially registered for the course, you should not be attending class. Students who are not registered in the course need to work out their registration issues in order to continue their attendance.

Drop dates: The last day to drop the course without a 'W' appearing on your record is Friday, October 6th. The last day to drop the course without petitioning is Friday, November 3rd.

Receiving an 'I' for the course: You cannot receive an incomplete for the course unless 70% of the work in the course has been completed. Extenuating circumstances will be handled on a case-by-case basis.

Tentative Course Schedule – Autumn 2006 Stat 145

M	September 18	no class	M	October 30	Chapters 19, 20
W	September 20	Intro, Chapter 1	W	November 1	Chapter 20
F	September 22	Chapter 2	F	November 3	Chapter 21
M	September 25	Chapters 3, 4	M	November 6	Chapter 21
W	September 27	Chapter 4	W	November 8	Chapter 23
F	September 29	Chapter 5	F	November 10	no class
M	October 2	Chapter 5	M	November 13	Chapter 23
W	October 4	Chapter 12	W	November 15	CI/HT Review
F	October 6	Chapters 12, 13	F	November 17	Chapter 7
M	October 9	Chapter 13	M	November 20	Chapters 7, 8
W	October 11	Chapter 14	W	November 22	Chapter 8
F	October 13	Chapter 15	F	November 24	no class
M	October 16	Chapter 6	M	November 27	Chapter 9
W	October 18	Review for Midterm	W	November 29	Review for Final Exam
F	October 20	no lecture	F	December 1	Review for Final Exam
M	October 23	Chapters 6, 18	M	December 4	Final Exam 5:30 p.m.
W	October 25	Chapter 18	W		
F	October 27	Chapter 19	F		

Quiz and Exam Dates

Quiz 1: Thursday, October 5th or Friday, October 6th (in recitation)

Common Midterm: Wednesday, October 18th, 5:30 – 6:18 p.m. (Postle Hall Rooms)

Quiz 2: Tuesday, November 14th or Wednesday, November 15th (in recitation)

Common Final Exam: Monday, December 4th, 5:30 – 7:18 p.m. (Postle Hall Rooms)

Homework Assignments and Tentative Due Dates

HW	Due Dates	Assigned Exercises (to be turned in)
1	Friday, September 29	Chapter 2 (16, 18, 20) Chapter 3 (8, 18, 20)
2	Wednesday, October 4	Chapter 4 (8, 16, 26, 28) Chapter 5 (6, 8, 12, 14, 42)
3	Friday, October 13	Chapter 12 (6, 12, 18, 32) Chapter 13 (4, 8, 26, 34, 40)
4	not due	Chapter 14 (6, 10, 18, 20, 24, 26) Chapter 15 (2, 4, 24, 36, 38)
5	Wednesday, November 1	Chapter 6 (2, 6, 8, 42, 46) Chapter 18 (12, 14, 26, 28, 36)
6	Wednesday, November 8	Chapter 19 (12, 24, 26, 32) Chapter 20 (2, 4, 16, 18, 22)
7	Friday, November 17	Chapter 21 (2, 4, 6, 8, 26) Chapter 23 (8, 12, 14abc, 26, 32)
8	Friday, December 1	Chapter 7 (16, 18, 24, 26) Chapter 8 (16, 24, 32) Chapter 9 (2, 4)