

Home

STAT 200 (Blended Learning)	
Course Name:	Elementary Statistics
Course Description:	<p>Statistics is the art and science of using sample data to make generalizations about populations. The topics covered in this course include:</p> <ul style="list-style-type: none"> - methods for collecting and summarizing data - methods for evaluating the accuracy of sample estimates - techniques for making statistical inferences <p>Users of statistics -- researchers, government agencies like the Census Bureau and the Bureau of Labor Statistics, companies like the automakers and drug industry, etc. -- make extensive use of the computer in applying statistical methods to their problems. So will you! This course will offer you plenty of practice in analyzing data from a variety of areas. As a result you should be well prepared for problem-solving involving statistics in the rest of your college courses, as well as gaining an understanding of the role of statistics in your daily life.</p>
Prerequisites:	2 units in algebra
Instructor:	Dr. Andrew (Andy) Wiesner Department of Statistics 416 Thomas Building 863 - 5653 email using Communicate tab in ANGEL Office Hours: TR 10:30 - 11:30
For TAs and their office hours please see "Teaching Assistants" in ANGEL	

Date	Objectives, Topic, and Notes	Reading and Homework Assignments
Weeks of Aug 27 and Sep 3	What is Statistics? Data vs. Information	Chapter 1: Statistics Success Stories and Cautionary Tales Chapter 2: Turning Data into Information Lecture Notes: Weeks 1 and 2 HW: Homework 01 and 02
Week of Sep 10	Regression and Correlation	Chapter 5: Relationships Between Quantitative Variables Lecture Notes: Week 3 HW: Homework 03
Week of Sep 17	Categorical Variables	Chapter 6: Relationships Between Categorical Variables Lecture Notes: Week 4 HW: Homework 04
		Chapter 7: Probability

Week of Sep 24	Probability	Sections 7.1 through 7.5 Lecture Notes: Week 5 HW: Homework 05 MIDTERM I: Wednesday, September 26
Week of Oct 1	Random Variables	Chapter 8: Random Variables Sections 8.1 through 8.4 Lecture Notes: Week 6 HW: Homework 06
Week of Oct 8	Random Variables	Chapter 8: Random Variables Sections 8.5 through 8.7 Lecture Notes: Week 7 HW: Homework 07
Week of Oct 15	Sampling Distribution	Chapter 9: Understanding Sampling Distributions: Statistics as Random Variables Sections 9.1 through 9.4, 9.6, 9.9 Lecture Notes: Week 8 HW: Homework 08
Week of Oct 22	Sampling & Confidence Intervals	Chapter 3: Sampling: Surveys and How to Ask Questions Chapter 10: Estimating Proportions with Confidence Lecture Notes: Week 9 HW: Homework 09 MIDTERM II: Wednesday, October 24
Week of Oct 29	Means	Chapter 11: Estimating Means with Confidence Sections 11.1 - 11.3 Lecture Notes: Week 10 HW: Homework 10
Week of Nov 5	Hypothesis Testing	Chapter 12: Testing Hypotheses About Proportions Lecture Notes: Week 11 HW: Homework 11
Week of Nov 12	Testing Means	Chapter 13: Testing Hypotheses about Means Sections 13.1 through 13.3

		Lecture Notes: Week 12 HW: Homework 12
Week of Nov 26	Testing Population Means	Chapter 13: Testing Hypotheses about Means Sections 13.4 through 13.6 Lecture Notes: Week 13 HW: Homework 13
Week of Dec 3	Using Statistics	Chapter 16: Analysis of Variance Sections 16.1 through 16.2 Chapter 17: Turning Information into Wisdom Sections 17.1 through 17.4 Lecture Notes: Week 14 HW: Homework 14 MIDTERM III: Wednesday, December 5
Week of Dec 10	Overall Course Review	Complete final lab activity Semester Mastery Quiz Review for Final

Course Materials

Textbook: *Mind on Statistics, (3rd Ed), by Utts and Heckard*

Note: If interested, you may purchase the digital copy (less expensive up front and works as if you were "renting" the book for a semester) instead of the hard copy. At the end of the semester you may resell your hard copy which results in an overall expenditure that is roughly the same.

If you have purchased the eText, you can [access your eText here](#).

Grading

- **Weekly Homework** (5%) - approx. 14 (Keep best 12)
- **Weekly Unit Quizzes** (5%) - approx. 14 (Keep best 12)
- **Weekly Mastery Quizzes** (5%) - approx 14 (Keep best 12)
- **Weekly Lab Activities** (5%) - approx. 15 (Keep best 12)
- **Midterms** (20% each) - Three (3) midterms **No make up exams!**
- **Final** 20% - Cumulative! (Given during finals week.)
- All grades will be kept in the ANGEL gradebook. To see your grades, click the Report tab and select Grades

F	D	C	C+	B-	B	B+	A-	A
0	60	70	77	80	83	87	90	93

Important University Dates

End of Drop/Add - Wednesday, Sep 5
 Filing Period for Final Exam Conflict - Oct 1 through Oct 21
 Late Drop Deadline - Nov 16
 Thanksgiving Break (No Classes) - Nov 19 through Nov 23
 Classes End - Friday, Dec 14
 Final Exam Period - Dec 17 through Dec 21

Correspondence

All email correspondence to me **MUST** be done using the ANGEL email (under Communicate tab in ANGEL). All other email risks going unanswered. NOTE: If you have your ANGEL email forwarded to another internet account then hitting reply to that email will **NOT** resend through ANGEL but instead in webmail. These, too, will not be answered. You will need to return to ANGEL and reply using the ANGEL email tools.

Lecture Notes

Posted on the ANGEL website

Policies

You are encouraged to work together on the homework, quizzes and activities. For the homework, quizzes and activities, your best **12** scores in **each** category will count toward your final grade. Because of this policy please read the following carefully!!!

Homework

- ALL homework will be completed and submitted using the TNOW online package. No paper copies will be accepted!
- The grading of homework is simple - either you get a 0 or 100. If you attempt **to answer** each question honestly, then you will receive a 100; otherwise a 0.
- Submission dates for all homework will be Friday at midnight of that week, starting with Friday, September 7.
- **No late homework will be accepted.**

Unit Quizzes

- Unit Quizzes **cannot** be made up.
- Will be assigned weekly starting the week of August 27.
- Must be completed online during the scheduled time. This scheduled time will typically be from **noon on Wednesday** until **midnight on Sunday**.
- The computer you use **Must have MINITAB** in order to complete the quiz.
- The quizzes will be timed (typically 35 to 50 minutes).
- Once you begin the quiz you the timer begins and will not stop. Your quiz will automatically be submitted after the time expires.
- All unit quizzes will be delivered using the ANGEL quiz tool.

- Unit quizzes will pertain to content covered during that week.
- If you miss a quiz, you will have the opportunity to take it but a grade will not be recorded.
- CAUTION: Since these quizzes will be delivered online the issue of technical problems may arise, for example ANGEL may not be unavailable or your internet connection might be interrupted. In the case where the problem is ANGEL availability, the deadline will be extended. However, if your internet connection is the problem then on time completion is the student's responsibility. This problem is most common for those students who do not plan accordingly; that is, they wait until the last few hours or minutes prior to the deadline until they take the quiz.

Lab Activities

- Lab Activities **cannot** be made up.
- Will be assigned weekly starting the week of August 27.
- Must be completed online during the scheduled time. This scheduled time will operate on the same schedule as the homework, with due dates being by midnight on Friday starting with Friday, September 7.
- All Lab Activities will be available in ANGEL as a word document. You will complete the activity by typing your responses on the document, saving it, and submitting your solutions to the activity's respective drop box in the Lesson folder.
- There is no time restriction other than the Sunday deadline.
- **Minitab will be necessary!**
- Submit only COMPLETED activities. Multiple submissions may result in a zero for that activity.
- Upon submission the solutions will be available in the weekly lesson folder.

Mastery Quizzes

- Mastery Quizzes **cannot** be made up.
- Will be assigned weekly starting the week of August 27.
- Must be completed online during the scheduled time. This scheduled time will typically be from **noon on Wednesday** until **midnight on Sunday**.
- All mastery quizzes will be delivered using the ANGEL quiz tool.
- The quizzes will be timed (typically 35 to 50 minutes).
- Once you begin the quiz you the timer begins and will not stop. Your quiz will automatically be submitted after the time expires.
- Mastery quizzes will consist of questions from that week PLUS previous weeks up until a midterm is given. That is, the master quizzes will be cumulative only for the content that will be covered on the subsequent midterm.
- **Minitab will not be required for Mastery Quizzes**; you may take these quizzes from any computer with access to the internet and ANGEL
- CAUTION: Since these quizzes will be delivered online the issue of technical problems may arise, for example ANGEL may not be unavailable or your internet connection might be interrupted. In the case where the problem is ANGEL availability, the deadline will be extended. However, if your internet connection is the problem then on time completion is the student's responsibility. This problem is most common for those students who do not plan accordingly; that is, they wait until the last few hours or minutes prior to the deadline until they take the quiz.

Exams - Must Bring PSU ID

- Students will be randomly selected to show their PSU ID when turning in exams. If you are selected and do NOT have your ID you will receive a zero for that exam.

- The midterms will be held during the Wednesday section meetings.
- No Calculators are allowed. [Any problems requiring math will be easy.]
- Exams (midterms and final) are partial open notes **from this semester only!**. For each Midterm you may bring **FOUR** pages of notes (front and back of standard 8 1/2 by 11 inch paper). Each sheet constitutes one page. For the final you may bring **EIGHT** pages of notes. No notes, old exams, etc. from previous semesters are permitted. If found using such materials you will receive a **zero** for that exam.
- No midterm or final make-ups are available. If you miss a midterm or the final, your score will be recorded as a zero.
- The final exam will be scheduled during finals week, Dec 17 through Dec 21. **Only those students who have scheduled a conflict exam will be allowed to take the exam outside of the university scheduled exam time. Please heed this warning when you schedule any end of semester travel plans prior to the posting of the final exam time.**

Some Suggestions

In the past, students have found their understanding of the material and performance on quizzes improved tremendously if they completed the reading assignments (book and lecture notes), homework and lab activities prior to taking the quizzes. To encourage this behavior, the due dates for activities and homework are Friday while the quizzes are Sunday.

As explained in the first paragraph above under **Policies**, since your "best 12" scores will be recorded you have "extra" assignments in the quizzes, activities, and homework portions. Often during a semester personal issues arise (sickness, family emergencies, etc.) which may require you to miss an assignment resulting in a "0" for that particular task. So please do not "waste" these extra chances.

Each semester a small number of students wait until the end of the semester until they realize that they are on the verge of failing. At such times they have a tendency to ask "What can I do to improve my grades?" My answer will be "Nothing." As you can tell from the work outlined in this syllabus we will be very busy. Because of that, to allow someone the opportunity to improve their standing because they failed to act properly during the semester would usurp the efforts of students who put forth a semesters worth of work.

Academic Integrity

Please visit: <http://www.science.psu.edu/academic/Integrity/index.html> for details concerning academic integrity guidelines that are adhered to by this course.

Technical Support

If you experience any problems with access to the online class materials, excluding homework, please contact ANGEL Support via email: angelsupport@psu.edu.

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