



STATISTICS 200: SECTION 022
Elementary Statistics
Fall 2009

COURSE DESCRIPTION: Welcome to Stat 200. Statistics is a collection of procedures and principles for gaining and analyzing information to help people make decisions when faced with uncertainty. The objective of this course is to improve a student's ability to assess statistical information in both everyday life and other University courses. Topics covered in this course include methods for:

- collecting and summarizing sample data
- evaluating the accuracy of estimates obtained from sample data
- making statistical inferences about populations

Basic algebra is the only prerequisite.

INSTRUCTOR:

- **Name & Office:** Jeffrey Woo, 418 Thomas
- **Office Hours:** TBA
- **Email:** yjw102@psu.edu (or through ANGEL). Please included [stat200] in your subject heading so I don't thrash your email by mistake. If you send through ANGEL, make sure you check the box "Send a copy to each recipient's Internet e-mail"

TEACHING ASSISTANT:

- **Name & Office:** Junyi Lin, 331A Thomas
- **Office Hours:** TBA
- **Email:** linjunyi82@gmail.com

ROOM & TIME: 11:15 AM - 12:05 PM

Mon in 104 Thomas, Wed in 214 Boucke, Fri in 111 Boucke

REQUIRED TEXTBOOK:

Mind on Statistics, 3rd Edition, by Utts and Heckard

We will cover most of this book. 2nd edition is significantly different. CD not required so feel free to get used.

REQUIRED Materials:

- **Scientific Calculator** for class, quizzes and exams
- **Writing Materials** (paper, pencils etc)

COURSE WEB SITE (ANGEL): <https://cms.psu.edu>: On this web site, you will find posted:

- course syllabus & instructor/ TA information
- homework assignments to complete
- solutions to exams & quizzes
- study guides for exams
- power point slides (bring to class **everyday**)
- class surveys, announcements & email correspondence (check email **daily**)
- weekly agenda

COURSE AGREEMENT: This syllabus serves as an agreement that begins on the first day of class & ends upon completion of the scheduled final. With this course, you are responsible for:

- anything discussed in class & posted on the **ANGEL** website, including course email
- checking email **daily**
- taking all exams and quizzes, including the final, during the scheduled time
- coming to class **prepared** to learn
- accepting the limited make-up policy
- seeking appropriate & **timely** help if having problems
- accepting that final grades will **not** be changed for purposes of maintaining financial aid and/or academic progress. (also grades will **not** be curved)
- accepting that individual extra credit will not be allowed
- keeping track of all of your grades in ANGEL
- finding enough time to make the appropriate commitment to the course

ACADEMIC INTEGRITY:

- Includes a commitment to not engage in or tolerate acts of falsification, deception, or misrepresentation. Such acts of dishonesty violate the fundamental ethical principles of the Penn State community and compromise the worth of work completed by others.
- This course will follow the guidelines found under Academic Integrity (Section 49-20) of the University Faculty Senate Policies for Students.

DISABILITY POLICY: It is Penn State's policy to not discriminate against qualified students with documented disabilities in its educational programs. If you have a disability-related need for modifications in the course, contact both the instructor and the Office for Disability Services (116 Boucke) at the beginning of the semester.

TABLE 2: COURSE REQUIREMENTS:

Requirement	Details	Weight
Homework: keep best 10 of 13	Randomly selected assigned textbook problems	15%
Lecture Quizzes: keep best 10 of 14	Short Quiz after each lecture, covering key ideas. Complete outside of class	10%
Lab Quizzes: keep best 12 of 16	Short quiz following lab activity	10%
Individual and Group Quizzes: keep best 3 of 4	15 multiple choice questions	10% and 5%
Exams (2) & Final Exam	Multiple choice questions	40%
Mini Project & Final Project		5% and 10%
Total		105%

TABLE 3: POINT RANGES FOR FINAL GRADES

Final Grade	Percents	Final Grade	Percents
A	(92.5 to 100+)%	C+	(75.0 to 79.4)%
A-	(89.5 to 92.4)%	C	(69.5 to 74.9)%
B+	(86.5 to 89.4)%	D	(59.0 to 69.4)%
B	(81.5 to 86.4)%	F	< (59)%
B-	(79.5 to 81.4)%		

WEEKLY AGENDA

A weekly agenda will be posted on ANGEL so you know what is going on for the week. This will be updated weekly and finalized on Sunday. Usually, we will have lectures on Mondays, computer labs on Wednesdays and Fridays, but this arrangement will vary from week to week. It is imperative to check the weekly agenda to know what will be covered in class for the week ahead.

HOMEWORK:

Homework is assigned after each lecture from the textbook. They will typically be due in class on Fridays, although this can vary. Please pay attention in class, and due dates posted for each HW posting on ANGEL.

LECTURES & LECTURE QUIZZES

Lectures will typically be held on Mondays. Again this may vary so please pay attention in class for announcements and to the weekly agenda. Lecture slides will be posted two days before the lecture, by 4pm. You are expected to print these out and bring to class. Following each lecture, there will be a Lecture Quiz that will be posted on ANGEL that covers the key concepts from the lecture. Each Lecture Quiz will typically be due by 1159pm the following day.

COMPUTER LAB & LAB QUIZZES

When we are not having a lecture, you will complete lab activities. You are encouraged to work in groups of 2-4 students. Labs are intense. At the end of lab, you will take an online quiz over the activity (*must be taken in the assigned classroom*). Certain labs will also be designated for quizzes, exams, and the final project.

INDIVIDUAL AND GROUP MASTERY QUIZZES

Quizzes will consist of 15 questions on chapters covered in lab since the beginning of the semester. You will complete the quiz on your own first, as the Individual Quiz. You will then take the Group Quiz (GQ) will be on the same set of questions and you are encouraged to discuss the Group Quiz in a group of about 3-4 students after the Individual Quiz is submitted. Quizzes are open notes, but you may not use a computer.

Attendance/Participation

Students who show good effort and participation throughout the semester will be moved up one-third of a letter grade.

EXAMS:

All exams will be in multiple-choice format. To each exam, you will need:

1. No. 2 pencils to complete your scantron sheet,
2. Your Penn State University student ID card,
3. A front and back of one 8.5"X11" sheet of handwritten notes (2 sheets for final)

Exam scoring (2 methods)

Method 1: 2 exams (each worth 10%) and Final Exam (worth 20%)

Method 2: Final Exam only (worth 40%)

Note: The method that gives you the higher score will be used. **You must take all the exams to pass the course.** You are heavily discouraged from ignoring the midterms and only working on the final. Students with that mindset almost always struggle in the course. Consistent effort and work is the best way to succeed in this class.

Projects:

There will be 1 mini-project. You are to complete these in groups of 2-4.

A comprehensive final project will be assigned. You are to complete it in groups of 2-4 students. You will be using Minitab to do many of the statistical analyses. It will be due the last day of class.

MAKE-UP POLICY: In general make-ups will not be given. *Specifically:*

- **Homework:** HWs will be due in class. No late HW will be accepted. If you know you are going to miss class when the HW is due, you are always free to turn in the HW early or email it to me as an attachment. **You get to drop 3 HWs.**
- **Lecture & Lab Quizzes:** **No late or make-up quizzes will be given for ANY reason. You get to drop 4 of each.**
- **Individual and Group Quizzes:** If you have University-related excuse or religious conflict, you must provide appropriate documentation **PRIOR** to the quiz. Arrangements will be made at that time; your grade will count towards both categories. Other circumstances will not be considered because of one being dropped. **Late-Make-ups will not be given under any circumstance.**
- **Exams:** If you have a University-related excuse or religious conflict, you must provide appropriate documentation **PRIOR** to the exam. Arrangements to take the exam will be made at that time. If you are ill or have a family emergency, you must contact me in good time, with documentation/proof explaining why you were not able to take the exam during the scheduled time.
- **You must take the final at the time scheduled by the university. DO NOT MAKE PLANS TO LEAVE EARLY.**

TABLE 4: OTHER IMPORTANT DATES

Date	Event
Sep 7	No Class - Labor day
Nov 23-27	No Class - Thanksgiving

Course tips:

- If you are unable to understand the concepts early on, it is highly unlikely you will be able to understand later concepts, since they generally build on earlier concepts. From my experience, many students find working in groups helpful. However, since statistics will be new to most of you, the best help you can get is to ask me or the TA during office hours. In fact, I expect to see most of you during office hours. Please do not feel shy or embarrassed to ask me for help. It is difficult for me to assist you in the course if you do not ask me for help.
- Like any science-related course, you have to put in some time outside of class to go over the material on your own. This is actually a 4 credit class, but we are meeting only 3 times a week. You are expected to spend a good amount of time outside of class to review the material and work on the problem sets and quizzes. Again, if you find yourself not knowing how to solve the problems, please seek help from me as soon as you can.
- The first few lectures are a bit different from the rest, since they will be less technical. Most students find these easier, so please do not get a false sense of security. Make sure you organize your time well and don't fall into bad study habits.