

**ARIZONA STATE UNIVERSITY**  
**Carey School of Business**

**ECN 221, SLN 77589**

**Business Statistics**

**Class Times: T/Th 10:30-11:45**

**TAs: Meredith Orseth & Ashley Reckers**

**Professor: Jay Koehler**

**Fall 2008**

**Room BAC 316**

## **Course Syllabus**

There are three materials for this class: (1) statistical software (SPSS 15.0 Student Version) (2) a textbook (*Statistics for Business and Economics (10e)* by McClave, Benson & Sincich) and (3) supplementary course readings. You'll need to purchase the first two items; you'll find PDF files of the supplementary readings on Blackboard.

### **Statistical Software**

SPSS statistical software is required for this class. (SPSS stands for Statistics Package for the Social Sciences.) You will need this software to access your grades, work out homework and practice problems, and become familiar with statistical output. If you don't learn to use SPSS, you will be at a disadvantage.

*If you have a Mac computer* rather than a PC, the SPSS version that comes with your ASU purchase will not work. You have several options: (1) use the public computers throughout the university (including in the basement of the b-school) that are already loaded with SPSS; (2) share SPSS with a fellow student who owns a PC; (3) purchase the software that allows your MAC to read software designed for PCs.

### **The Textbook**

The purpose of the textbook is to give you some background material to help you get a deeper understanding of the lectures and class notes. The early chapters are fairly simple. As the class progresses, you will find that the textbook material becomes increasingly challenging. Don't panic if you struggle to understand all of the assigned material. Statistics textbooks like ours always contain a lot of technical information. This book is best used as a general reference, not as a manual that needs to be memorized. The lectures, class notes, and practice problem sets will keep you focused on what you need to know.

### **Supplementary Readings**

Some weeks include a set of required supplementary readings. Some readings are applications of course material and some are pages from other textbooks or articles. The practice problems, homework, quizzes and Final Exam will often include questions about this material. My suggestion is to read the material carefully, highlighting and taking notes on the important points. Then study the notes that you've taken on these readings (rather than re-reading the material) before the quizzes and Final Exam.

## Website

We will use Blackboard in this class. This is where you will find announcements, supplementary readings, grades, links to relevant websites, and a few other things. Many of the websites that I'll provide link up to other websites that provide detailed explanations of statistical concepts. If you are looking for additional material, this is a great place to start.

You will also find a detailed set of FAQs on our class Blackboard account. These FAQs answer your questions about practice problems, homeworks, quizzes, grades, and miscellaneous issues. You are responsible for knowing these FAQs. When you have an administrative question, please check here first.

## Professor

The best way to contact me for relatively simple questions is by e-mail: [jay.koehler@asu.edu](mailto:jay.koehler@asu.edu). Please include the number 221 in the subject header of every e-mail that you send to me.

Example:

To: [jay.koehler@asu.edu](mailto:jay.koehler@asu.edu)  
From: [Sarah.Smith@asu.edu](mailto:Sarah.Smith@asu.edu)  
Subject: 221--Question about the normal distribution

My office hours are:

**Tuesdays 12-2 (BAC 578)**  
**Thursdays 8-10 (BAC 578).**

Feel free to just drop in during those hours. I am sometimes available to meet with you for 15 minute appointments later in the day and evening on Thursday. The best way to contact me for a Thursday appointment is by e-mail. Send me a rank-ordered set of times that you can meet. For example:

1. Thurs (9/18), 3:45
2. Thurs (9/18), 4:00
3. Thurs (9/18), 6:00
4. Thurs (9/25), 3:45

I'll send back a confirming e-mail and provide you with the first time slot on your list that's free for me.

*Note:* I am not available to meet with you anytime on Monday or on Tuesday mornings. I mention this because 5 of the 6 quizzes are on Tuesdays. If you need help right before a quiz, please see one of the TAs on Monday.

## TAs

Meredith Orseth & Ashley Reckers are the TAs for our class. Meredith and Ashley took this class last year and did great! They also have very good people skills. Meredith's e-mail address is [Meredith.Orseth@asu.edu](mailto:Meredith.Orseth@asu.edu) Ashley's e-mail address is [Ashley.Reckers@asu.edu](mailto:Ashley.Reckers@asu.edu).

Their office hours are:

**Mon: 12 -1:30 (Meredith)**

**Mon: 3:30-5:30 (Ashley)**

**Wed: 10-12 (Ashley)**

**Wed: 12-2:30 (Meredith)**

In addition, Meredith and Ashley will have extra office hours on the Mondays that precede the Tuesday quizzes. **Ashley's extra office hours on those Mondays are 3:15–5:15pm. ???** **Meredith's extra office hours on those Mondays are 8-10pm ??**. The location for these extra office hours will be posted on Blackboard soon. ?????

## Grades

Your grade for the course will be determined by your scores on 6 homework assignments, group member evaluations, 5 quizzes, and a Final Exam. The weights of these components on your course grade are as follows:

<b>Homework:</b>	<b>20% (~3% each)</b>
<b>Group Participation:</b>	<b>2%</b>
<b>Quizzes:</b>	<b>45% (9% each)</b>
<b>Final Exam:</b>	<b>33%</b>

*Homework:* The homework assignments will be posted on Blackboard. You will complete these assignments in small groups (see Blackboard for your assigned homework group) and turn in one hard copy of the completed assignment on the due date. As indicated on the Weekly Schedule below, the due dates for the homework assignments are: **9/4, 9/25, 10/9, 10/23, 11/13, and 11/25**.

Please write your group number and the names of everyone in the group on the first page. After the assignments have been posted, you should communicate promptly and courteously with your group members. You may work through the problems in person, on the phone, or via e-mail. Each assignment will be graded 0, 1 or 2, and the answer will be posted on Blackboard. All group members will receive the same grade on each homework assignment. These assignments will not be returned so be sure to keep a copy for yourself. Here are some rough grading guidelines:

- 0 Nearly all answers wrong, little work shown, multiple problems skipped, or too hard to read overall;
- 1 Most answers wrong, insufficient work shown, one problem skipped, or some parts hard to read;
- 2 Most answers right *and* sufficient work shown *and* all problems answered.

*Group Participation:* At the end of the semester, each of you will evaluate each member of your homework group (anonymously). This evaluation will count toward the course grade.

*Quizzes:* The quizzes will usually consist of 10 questions and take place during the first 20 minutes of the scheduled class. As indicated on the Weekly Schedule below, the quiz dates are: **9/9, 9/30, 10/14, 10/28, 11/13 (Thurs), and 11/25.**

Quiz scores will appear on Blackboard several days later. If you believe that the quiz score that appears for you on line is either missing or in error, you must let me know by e-mail within two weeks of the date that the scores are posted. After that, you may not protest a quiz grade.

*Final Exam:* The Final Exam will take place on **Tuesday December 16, 9:50-11:40am.**

### **Quiz and Final Exam Policies**

*You must bring your official ASU Sun Card to class on quiz and Final Exam days.* Failure to bring this card will result in a loss of points.

We will use Scantrons in this class. Be sure to write and bubble in your full name as well as your 10-digit ASU Affiliate ID number (the number that begins with a 1) on each quiz and on the final exam.

You must arrive in class on time for examinations. You will not be given extra time – and may not be able to take the quiz or Final Exam at all – if you arrive late.

You may use calculators during the quizzes and Final Exam to make calculations.

You may not use any notes, computers, or materials other than those I supply during the quizzes or Final Exam. You may not use calculators to store information including formulas or text. Likewise, you may not use any device (including cell phones) during the quizzes or Final Exam that permits you to transmit or receive exam-relevant information to or from another person or source. Failure to abide by these policies constitutes cheating. According to ASU policy, “All forms of student dishonesty, including cheating, fabrication, facilitating academic dishonesty and plagiarism are subject to disciplinary action.” In this course, **anyone involved in any form of academic dishonesty will fail the course.** Other disciplinary action will follow.

Because there are 6 scheduled quizzes of which 5 count towards your final grade, you may drop your lowest quiz score (or simply skip one of the quizzes). If you miss two quizzes, you will receive a score of 0 for the 2<sup>nd</sup> quiz. If a quiz date conflicts with a previous obligation, you should drop the class or plan to take the quiz **at 8:00 am on the Thursday prior to the scheduled quiz day. This is the only available alternative quiz date and time.** If you wish to avail yourself of the early quiz option, you *must* notify me by e-mail at least 10 full days prior to the scheduled quiz date. I will write back to confirm the early quiz and to tell you where you will take it. If you do not notify me 10 full days in advance of your inability to take the scheduled quiz, you will not be able to take it early. **There are no make-up quizzes (i.e., quizzes taken after the scheduled date and time) under ANY circumstances.**

If serious illness or emergencies prevent you from taking several quizzes, you should either drop the class or request an “incomplete” for the course. Incompletes will be granted when you provide compelling written documentation (e.g., medical letters and documents) that explains each absence. Incompletes will be made up in 2009 (ideally at the beginning of the spring semester). The University’s course withdrawal deadlines are **Nov. 2 (in person)???** and **Nov. 4 (online) ??????**

The Final Exam is cumulative (i.e., includes all material from the course). University policy requires that this exam be taken only at the scheduled time (?????????? **Dec. 7 @ 10:00 am**). If serious illness or emergency prevents you from taking the Final Exam, and if you provide compelling written documentation, you will receive an “incomplete” for the course. As noted above, incompletes will be made up in 2009.

### **What to Read**

Please complete the assigned readings *before* the Tuesday class each week.

The statistics links page on Blackboard contains numerous pages that will help you learn and apply the classroom concepts. I encourage you to play with these on a regular basis.

### **Practice Problem Sets**

I will post Practice Problems and answers to those problems on Blackboard. These Practice Problem sets are designed to help you learn the material, prepare for the homework and quizzes, and become comfortable conducting analyses using SPSS. Feel free to consult with your classmates when working on these. You will not turn in your work or answers.

### **Missed Classes**

I hope you organize your time in a way that allows you to attend every class. Unfortunately, many of you will miss a class – sometimes for good reason. But please bear in mind that ours is a class where a lot of learning happens in the classroom. Therefore, missing a class is potentially costly to you. *You may not transfer these costs onto the TAs or me by asking to meet with us privately so that we can tell you about the most important parts of the class(es) that you missed.* Instead, if you do miss a class, you should (a) do the assigned reading, (b) read the relevant section in the textbook, (c) review the relevant links on the statistics links page, (d) get copies of someone's notes, and (e) talk to your classmates about what was covered. If, after doing all of these things, you have a specific question, then please get in touch with the TAs or me.

### **FAQs**

Certain questions come up frequently about grading, quizzes, and other matters. In response, I have prepared a set of FAQs and placed them on Blackboard. Please read these as soon as possible.

## **Staying in Touch: Blackboard & E-mail**

We'll take advantage of the electronic age to stay in touch via e-mail and Blackboard. If you have problems getting into Blackboard, contact [wpcareybb@asu.edu](mailto:wpcareybb@asu.edu). Please note that neither you nor I can enroll you on Blackboard.

*Check our Blackboard website and your e-mail every day for announcements.* When I send messages to the class, I will use the Blackboard e-mail feature which sends messages to your ASU e-mail alias. If your account is not registered, you will not receive my messages. Although I won't send messages or post announcements every day, I will assume that e-mails are received by everyone within 24 hours. Likewise, I will post various class materials (e.g., reading assignments, practice problems, quizzes, etc.) on Blackboard.

Quiz and Final Exam grades will be posted on Blackboard in an SPSS data file. If you don't learn to use SPSS you will not be able to access your grades. To protect your privacy, grades will be posted using your 7-digit Posting ID. **Your Posting ID is the last 4 digits of your 10-digit ASU Affiliate ID (the number that starts with a 1) followed by the last 3 digits of your 9-digit ASU ID number.**

# Weekly Schedule

<b>Week 1:</b> 8/26, 8/28	<b><i>Chance &amp; Elementary Statistics</i></b> Chapter 1 (1.1-1.3, 1.5-1.7), Chapter 2 (2.4, 2.5) Reading Set: Week 1
<b>Week 2:</b> 9/2, 9/4 (HW #1)	<b><i>Graphs &amp; SPSS</i></b> Chapter 2 (2.1-2.3, 2.11) Reading Set: Week 2
<b>Week 3:</b> 9/9 (Quiz #1), 9/11	<b><i>Probability</i></b> Chapter 3 (3.1-3.6) Reading Set: Week 3
<b>Week 4:</b> 9/16, 9/18	<b><i>Bayes' Theorem</i></b> Chapter 3 (3.8) Reading Set: Week 4
<b>Week 5:</b> 9/23, 9/25 (HW #2)	<b><i>Bayesian Applications</i></b> Reading Set: Week 5
<b>Week 6:</b> 9/30 (Quiz #2), 10/2	<b><i>The Normal Distribution &amp; Z Scores</i></b> Chapter 4 (4.7), Chapter 2 (2.7)
<b>Week 7:</b> 10/7, 10/9 (HW #3)	<b><i>Sampling Distributions &amp; Confidence Intervals</i></b> Chapter 4 (4.10, 4.11), Chapter 5 (5.1-5.2) Reading Set: Week 7
<b>Week 8:</b> 10/14 (Quiz #3), 10/16	<b><i>Error Charts</i></b> Reading Set: Week 8
<b>Week 9:</b> 10/21, 10/23 (HW #4)	<b><i>1 Sample Comparisons</i></b> Chapter 5 (5.3-5.4), Chapter 6 (6.1-6.5) Reading Set: Week 9
<b>Week 10:</b> 10/28 (Quiz #4), 10/30	<b><i>2 Sample Comparisons</i></b> Chapter 7 (7.1-7.2)
<b>Week 11:</b> 11/4, 11/6	<b><i>2 Sample Comparisons (continued)</i></b> Chapter 7 (7.3-7.4)
<b>Week 12:</b> 11/13 (HW #5 & Quiz #5)	<b><i>Nonparametric Tests: Chi-Square</i></b> Chapter 9 (9.2-9.4) Reading Set: Week 12

**Week 13:**  
11/18, 11/20

**Correlation**  
Reading Set: Week 13

**Week 14:**  
11/25 (HW #6 & Quiz #6)

**Statistical Decision Making Biases: Part I**  
Reading Set: Week 14

**Week 15:**  
12/2, 12/4

**Statistical Decision Making Biases: Part II**  
Reading Set: Week 15

**Week 16:**  
12/9

**Review**

*Note:* No class on 11/11 (Tues) and 11/27 (Thurs)

## Summary of Key Dates and Times

**Homework Due Dates:** 9/4, 9/25, 10/9, 10/23, 11/13, and 11/25 (Tues).

**Quiz Dates:** 9/9, 9/30, 10/14, 10/28, 11/13 (Thurs), and 11/25.

**Final Exam Date:** Tuesday Dec. 16, 9:50-11:40am

**Office Hours:**  
Mon: 12 -1:30 (Meredith)  
Mon: 3:30-5:30 (Ashley)  
Tues: 12-2 (Prof. Koehler, BAC 578)  
Wed: 10-12 (Ashley)  
Wed: 12-2:30 (Meredith)  
Thurs: 8-10am (Prof. Koehler, BAC 578)