

STAT 2231 - Introduction to Statistics I – Sec B
Summer 2011

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Course URL: <http://math.georgiasouthern.edu/~asills/teach/sum11>

StatsPortal URL: <http://courses.bfwpub.com/bps5e.php>

Office: Math Phys 3305

Office Hours: by appointment

Course Objectives: Students successfully completing this course will be able to:

1. Create and interpret basic statistical graphs and charts for distributions and relationships.
2. Calculate descriptive measures for distributions and relationships.
3. Understand and use probability concepts appropriately.
4. Perform basic inference procedures for means and proportions and interpret results.
5. Use appropriate modern technology to solve problems and communicate results.

Required Text:

You are required to purchase access to **StatsPortal**. You may purchase online (<http://courses.bfwpub.com/bps5e.php>) with a credit card (\$70.95) or at the GSU bookstore (\$76). This will give you electronic access to the course text:

Moore, The Basic Practice of Statistics, 5th edition, W.H. Freeman, publisher.

There is no need to buy a printed copy of the book. (You may do so, but this will cost \$153.35 instead of \$70.95 or \$76.)

We will cover chapters 1-21 with some material omitted.

Required Calculator: The TI-83/84 graphing/statistical calculator is required for this course. You are responsible for learning to use the calculator. There will be NO “How-to-use-it” questions answered during tests.

Grades: Grades will be composed of the following:

Online homework via StatsPortal	15%
Tests (3)	60%
Cumulative Final Exam	25%

Final grades will be based on 90+% = A; 80-89% = B; 70-79% = C, 60-69% = D.

Incompletes:

The *only* way to obtain a given grade is to achieve the appropriate number of points in the course. There will be no “extra credit” to make up for prior poor performance. Do not ask the instructor to raise your grade.

A grade of Incomplete (I) will be assigned only if *both* of the following are true:

- 1: An unforeseen, compelling event precludes completion of the course and
- 2: The grade at the time of occurrence is a “C” or better.

Tests: Tentative test dates are announced below. These may be adjusted for the flow of the class. You will be allowed to use your calculator and one 8.5 x 11 sheet of paper for “reminders” and formulae. You may put whatever you wish on the paper, but as a word of advice, please make it relatively neat - you will want to be able to find what you’re looking for! It is *illegal* to shrink copy several sheets so that they fit onto one. “Cheat sheets” will be turned in with each test.

No make-up exams will be given. When a student misses an exam for a valid reason and can produce appropriate documentation, the score from the final exam will be substituted for the missing exam score.

Homework: All homework will be done using the companion web site, named above. **You must register at once.** Click on the link to either purchase or register an activation code.

If you use a pop-up blocker, you must enable pop-ups for this website.

Mac users: Use Firefox. StatsPortal does not work properly in Safari.

Homework is untimed, open book, open notes. You can keep track of all grades through this website as well.

Attendance: Students are expected to attend each class meeting and pay attention, but attendance will not be taken. A student who misses class is responsible to find out what was discussed and learn the material that was covered on the missed day. The instructor is **not** responsible for re-teaching material missed by a student who did not attend class.

Cheating is (obviously) not permitted. Note that you may work together on homework, but each student must prepare his or her own solution. Sharing of a calculator during any test will be considered an act of cheating. A grade of 0 for anyone caught cheating will be the minimum punishment. Acts of cheating will be reported to the proper authorities. For more information, see the Student Conduct Code.

Final Exam: Thursday, June 23 – regular class time.

Important Dates:

May 23-25	Drop/Add period
May 30 –	Memorial Day observed – no classes
June 9 –	Last day to drop without penalty

General Class Rules:

- Cell phones must be turned off and put away.
- Be courteous to your fellow students and instructor. This includes being on time to class, being prepared for class, and conducting yourself in a mature and respectful manner.

Class Schedule:

Date	Subject	Problems
5/23	Introduction to the course and StatsPortal, definitions, Variable types, Pie/Bar Charts, Stemplots, Shapes	Ch. 1: 1-5, 10, 23-32
5/24	Histograms, Timeplots, Bad Graphs	6, 8, 9, 33, 34, 37, 38, 41, 43, 44
5/25	Summary Statistics	Ch 2: 1-4, 10, 11, 23, 25, 28, 31, 40, 42
5/26	Boxplots, Density Curves, Normal Distributions	Ch 2: 5-8, 34, 35, 38, 44 Ch. 3: 1-9, 11, 12, 27-29, 32, 33, 46
5/27	More Normals, and Inverse Normals,	Ch. 3: 13, 14, 40-42, 46-50
5/31	Scatterplots, Regression	Ch. 4: 1-6, 22, 23 Ch. 5: 1, 2, 24, 26, 40, 41
6/1	Correlation, r^2	Ch. 4: 10, 11, 24, 27 Ch. 5: 4-6, 27, 32-34
6/2	Residuals, Cautions, Review	Ch. 5: 7-13, 35, 36, 37, 40, 44, 47-50
6/3	Two-way Tables, Sampling	Ch. 6: 1-4, 7, 8, 19-23, 25, 28, 30 Ch. 8: 1-10, 12-15, 27, 29-33, 45, 46, 50
6/6	Test 1 – Chapters 1 - 5	
6/7	Experiments and Ethics	Ch. 9: 1-4, 6, 8, 9, 11, 15, 27, 33, 39
6/8	Probability	Ch. 10: 1, 4-9, 12, 16, 30-32, 38 Ch. 12: 1, 4-6, 27, 29, 33, 43-45
6/9	Binomial Random Variables	Ch. 13: 1-10, 12, 22-24, 27, 28, 30, 35
6/10	The Distribution of \bar{x}	Chapter 11: 1-3, 5, 7-13, 25-27, 41
6/13	Test 2 – Chapters 6, 8-10, 12, 13	
6/14	Z-based intervals and tests	Ch. 14: 1, 2, 4, 6-10, 21-23, 24, 29, 30
6/15	Z-based tests and Cautions	Ch. 15: 1-10, 12-14, 40-44 Ch. 16: 1, 2, 6-13, 25, 29, 37, 43
6/16	Inference for 1 mean – σ unknown	Ch. 18: 1, 2, 6-13, 25, 29, 37, 42
6/17	Inference for 1 proportion, Review	Ch. 20: 1-11, 13-17
6/20	Test 3: chapters 11, 14, 15, 16, 18, 20	
6/21	Inference for 2 samples - means	Chapter 19: 1-4, 6, 7, 9, 40
6/22	Inference for 2 samples – proportions, review	Chapter 21: TBA
6/23	Cumulative Final Exam	

Note: If you are looking in the ebook or hard copy, exercises have the chapter number first, so, exercise 1 for Chapter 1 looks like 1.1. Low number problems are at the end of each section; higher numbers at the end of the chapter. This is the syllabus version of May 21, 2011. Please disregard earlier versions.