

**Math 5320**  
Butts, Spring 2005

**Probability/ Statistics -  
Brief Overview**

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Office hours: MW 3:00pm- 5:00pm ; 7:00p – 8:00pm [in CB]  
T 4:00pm - 6:00 pm and by appt. 1/11/05A

**Textbook:** The Practice of Statistics, TI-83/89 Graphing Calculator Enhanced, 2nd ed.,  
Yates, Moore and Starnes [YMS2] W.H. Freeman 2003; and various handouts  
web site: <http://bcs.whfreeman.com/yates2e/default.asp?uid=0&rau=0>

**Organization:** The course will be organized around four main themes:

- Exploring Data: Descriptive Statistics
- Anticipating Patterns: Probability and Simulation
- Planning a Study
- Statistical Inference: Confirming models

In the textbook we will cover selected portions of Chapters 1 – 12, 14.  
Several handouts will be distributed.

**Calculator:** You will be expected to have a TI-83/84+ or TI-89.

**Software:**

**Windows:** A freeware program, WINSTATS, is available

*"Winstats provides access to scatter plots, curve fitting, histograms, statistical data, and standard theoretical probability distributions. It also simulates dealing cards, sampling candy, tossing darts, needles and coins."* <http://math.exeter.edu/rparris/default.html>

**Mac:** Statistical software for data analysis on the Web: <http://www.statcrunch.com/>

**MS Excel** can also be useful

You can check for other online tools at some of the websites below with lists of links.

**Assessment**

- Two tests [mostly take-home] - Week 7 or 8, Week 13 or 14 [50%]
- A team project for the 'final exam'. Last day [20%]
- Homework: will be assigned; some of it will be collected. It will contain writing questions, short projects, and internet searches. Attendance and class participation [30%]

**Academic Honesty:** In this course students will conform to the University rules for academic honesty. For more information see <http://www.utdallas.edu/student/sliffe/dishonesty.html>.

**Students with disabilities:** Information from this course can be provided to students with disabilities through University services. For more information see <http://www.utdallas.edu/student/sliffe/hcsvc.html>.

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## **A Few Web sites:**

**AP Stat Resources for our text:** <http://www.ccds.charlotte.nc.us/mcgrail/apsres.htm>

### **Internet Resources for AP Statistics:**

[http://education.uncc.edu/rglamber/AP%20Materials/internet\\_resources\\_for\\_ap\\_statist.htm](http://education.uncc.edu/rglamber/AP%20Materials/internet_resources_for_ap_statist.htm)

**a few links related to Statistics education:** <http://noppa5.pc.helsinki.fi/links.html>  
[more than a few].

**ARTIST project** [Assessment resources for teaching first courses in Statistics]:

<http://data.gen.umn.edu/artist/index.html>

## **Ask Dr. Math - Questions and Answers about**

**MS Statistics:** [http://mathforum.org/library/drmath/sets/mid\\_statistics.html](http://mathforum.org/library/drmath/sets/mid_statistics.html)

**MS Probability:** [http://mathforum.org/library/drmath/sets/mid\\_probability.html](http://mathforum.org/library/drmath/sets/mid_probability.html)

**HS Statistics:** [http://mathforum.org/library/drmath/sets/high\\_statistics.html](http://mathforum.org/library/drmath/sets/high_statistics.html)

**HS Probability:** [http://mathforum.org/library/drmath/sets/high\\_probability.html](http://mathforum.org/library/drmath/sets/high_probability.html)

**College Statistics:** [http://mathforum.org/library/drmath/sets/college\\_statistics.html](http://mathforum.org/library/drmath/sets/college_statistics.html)

**College Probability:** [http://mathforum.org/library/drmath/sets/college\\_probability.html](http://mathforum.org/library/drmath/sets/college_probability.html)

**NCTM Illuminations:** <http://illuminations.nctm.org> Go to Lessons [esp. Data Analysis/Probability Standard]

## **Tools:**

**NCTM Illuminations:** <http://illuminations.nctm.org> Go to Tools [esp. Adjustable Spinner, Box Plotter, etc.]

**National Library of Virtual Manipulatives:** <http://matti.usu.edu/nlvm/nav/vlibrary.html>

**Adjustable Spinner:** <http://www.shodor.org/interactivate/activities/spinner/index.html>

**Adjustable Pie Chart:** <http://www.shodor.org/interactivate/activities/piechart/index.html>

## **More:**

- **CHANCE** database including Chance News: <http://www.dartmouth.edu/~chance/>
- **SurfStat:** <http://www.anu.edu.au/nceph/surfstat/surfstat-home/surfstat-main.html>
- **Exploring Data:** <http://exploringdata.cqu.edu.au/> [sometimes is slow to load.]
- **Rice Virtual Lab in Statistics:** <http://www.ruf.rice.edu/~lane/rvls.html>

[may need to use Internet Explorer]

- **DASL:** <http://lib.stat.cmu.edu/DASL/>