Math B22  Spring 2014
Elementary Probability and Statistics

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Supplies: TI-83/84 or TI-83/84 Plus graphing calculator. These calculators sell for approximately $100. If you already have one or can borrow one that’s great, otherwise I would recommend that you rent one for $10 from BC, or from [www.RentCalculators.org](http://www.RentCalculators.org)

There are many students on the waitlist for this class. For this reason, any student currently enrolled who is absent from class anytime during the first two weeks and does not contact the instructor will be dropped to make room for the students wanting to add from the waitlist.

Course Description: Graphical methods of description of data, finite probability; discrete and continuous random variables; sampling distributions; hypothesis testing for large and small samples, analysis of variance, nonparametric statistics; linear regression and correlation.

Student Learning Outcomes:

1. The student will be able to understand statistical terminology and symbols.
2. The student will be able to construct and interpret graphs to display and classify data.
3. The student will compute and interpret appropriate descriptive statistics.
4. Compute probabilities using the basic probability laws.
5. Compute probabilities based on the binomial or normal distribution.
6. Recognize the importance, limitations, and applications of the Central Limit Theorem.
7. Describe and utilize sampling distributions.
8. The student will be able to construct and interpret the appropriate confidence interval.
9. The student will be able to construct and interpret the appropriate hypothesis test.
10. Use regression analysis to construct appropriate models on dependent quantitative variables.
11. Choose and apply appropriate inferential analyses to real situations in order to draw conclusions about a population or about several populations.

Learning Experiences:

1. Bring each day to class – textbook, class pack of notes, graphing calculator, paper and pencils.

2. Mathematics is not a spectator sport. One learns by doing. We will spend considerable time in class working homework problems. *If you are not able to solve a particular problem, do not hesitate to ask!* Your classmates will be grateful.

3. **M-R students** with more than eight absences, and **TR students** with more than four absences will be automatically dropped from the class. Attendance may be taken at any time during the class period. A student not present at the time roll is taken will be given one full absence.
4. Five exams will be given on announced dates. Work in pen is not accepted. **EXAMS CAN BE MADE UP ONLY FOR A DOCUMENTED MEDICAL REASON FOR YOURSELF.** An exam can be taken early only for extreme circumstances. *No exam scores will be dropped.*

5. The final exam is cumulative. You must take the final exam. If you do not take the final exam, you will automatically receive an F as your grade for the course.

6. It is very important to maintain a positive and respectful learning environment. A student who does not support this type of learning environment will be asked to leave class, and will be marked absent for that day. Please be punctual because **CLASS WILL START ON TIME EVERY DAY.**

7. **PLEASE TURN OFF AND PUT AWAY ALL CELL PHONES AND LISTENING DEVICES BEFORE THE START OF EACH CLASS.**

**Point Distribution:**

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<table>
<thead>
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<tbody>
<tr>
<td>Exams</td>
<td>800</td>
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<tr>
<td>Final Exam</td>
<td>200</td>
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**1000 points total**

**KEEP ALL GRADED WORK UNTILL THE END OF THE SEMESTER**

**Grades:** Generally, the following percentage guidelines for grades will apply:

| 100 - 90 | A     |
| 69 - 60  | D     |
| 89 - 80  | B     |
| below 60 | F     |
| 79 - 70  | C     |

**Disability Services:** Students with disabilities who believe they may need accommodations in this class are encouraged to contact Disabled Student Programs & Services located at Student Services Building, 1st Floor, Counseling Center (395-4334), as soon as possible to better ensure such accommodations are implemented in a timely fashion.

**Academic Dishonesty:** Any form of academic dishonesty will not be tolerated and will result in a zero for that grade. This is the only warning you will receive. See the *Student Handbook* for possible disciplinary consequences of Student Misconduct at Bakersfield College.

**Habits of Mind:** How will you succeed at BC this semester? What determines success is not circumstance, but habit. **Habits of Mind, It's POSSIBLE at BC** has many free tools intended to help you accomplish your goals in school. Only you can overcome the challenges you face this semester and in life. Start out successfully with these steps:

- Download the app for Habits of Mind at Bakersfield College for power in your palm.
- Ask for help, do the work, and refuse to quit.