### MATH 1530 Elementary Statistics---

#### Course Description

Elementary Statistics is an introduction to elementary statistical methods. Topics covered include mean, standard deviation, standard scores, probability of events, binomial and normal distributions, linear correlations, sampling, hypothesis testing, goodness of fit, and analysis of variance.

#### Mathematics Learning Outcomes:

- Students are able to use mathematics to solve problems and determine if solutions are reasonable.
- Students are able to use mathematics to model real-world behaviors and apply mathematical concepts to the solution of real-life problems.
- Students are able to make meaningful connections between mathematics and other disciplines.
- Students are able to use technology for mathematical reasoning and problem solving.
- Students are able to apply mathematical and/or basic statistical reasoning to analyze data and graphs.

#### Course Objectives

After completion of this course, students should be able to:

- Construct and interpret charts and tables of data.
- Use binomial and frequency distributions.
- Recognize mutually exclusive, compound, and independent events and compute their probabilities.
- Interpret standard scores and use the normal distribution.
- Calculate correlation coefficients.
- Recognize appropriate sampling.
- Apply the central limit theorem.
- Use hypothesis testing and level of confidence.

These objectives will be evaluated by the student’s performance on tests, quizzes, homework, and a comprehensive final examination after explanation and examples.

#### Prerequisites and Co-requisites

Satisfactory ACT or placement test scores or MATH 0800

#### Specific Course Requirements

- Adobe Reader or Similar PDF reader
- MyLabsPlus ([www.columbiastate.mylabsplus.com](http://www.columbiastate.mylabsplus.com))
- Flash Player (Can be installed from the MyLabsPlus setup screen)

#### Required Textbooks:

1. MyLabsPlus access code ISBN 0558656706
2. TI 83/84 Plus Calculator

#### Recommended Textbooks:


#### How to Contact the Instructor:

Preferably use [borren@columbiastate.edu](mailto:borren@columbiastate.edu). Can be reached by phone at (931) 540-2697 or in office Warf 220, Columbia Campus. The STM division office can be reached at (931) 540-2710 these personnel will be able to provide information about faculty office hours and assist with contacting instructors. The number for Mrs. Stinnett is (931) 540-2750.

#### Instructor Response Time

The instructor will make every effort to respond to course email and voice mails within 24 hours during the work week though it may not be possible in all cases. You should expect a response within 48 hours on weekends and holidays.
If the instructor misses a class meeting email and/or Online Campus will be used to distribute information concerning assignments.

**Assessment and Grading**

1. Homework—Homework is assigned for each chapter and must be completed using MyLabsPlus at www.columbiastate.mylabsplus.com. Each homework assignment has a possible score of 25 points. If a student averages 90 and above percent on the complete chapter’s homework then they will receive 25 points. If a student averages less than 90% then the percentage score will be multiplied by 25 to obtain the student’s homework grade for that chapter. The student may drop 1 homework grade. Total points possible for homework 200.

2. Projects—Each student is required to complete three projects during the semester. The projects will reflect the material currently being covered for the next test. Each project will require mathematical computations and a summary report. The summary should be a type-written page of your findings and their implications. Each project is worth 100 points. In order to complete the projects data will be gathered using Online Campus or Survey Monkey. Each student is expected to participate.

2. Quizzes—Each unit will have a quiz. The quizzes should be completed using MyLabsPlus at www.columbiastate.mylabsplus.com. Each quiz is worth 50 points. You must earn a 90% or above on the quizzes to receive 50 points. Anything less than the above stated percentages will be multiplied by 50 to obtain the quiz grade. You will be given 5 attempts for each quiz in [http://columbiastate.mylabsplus.com](http://columbiastate.mylabsplus.com). You will be allowed to drop 1 quiz grades. Total points possible for quizzes 150.

4. Tests and Final Exam— During the semester there will be 3 announced tests and a comprehensive final exam. Each test is worth 200 points. **There are no makeup tests.** If you miss a test you will be given a zero. Your final exam score will replace your lowest test score. Unless your lowest test score is higher than your final exam score. The final exam score can only replace one test. **On test day, you must bring a pencil. DO NOT TAKE MY TEST WITH PEN. I will not give partial credit for any work completed with a pen.** You should only have your pencils, erasers, and calculator to your seat. Total possible points for tests and final are 800 points.

**Grading Procedure**

The course is designed so that students can earn up to 1450 points. Each student will receive a letter grade on where his or her cumulative point total falls in the following grade scale:

<table>
<thead>
<tr>
<th>Points</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>1305-1450</td>
<td>A</td>
</tr>
<tr>
<td>1160-1304</td>
<td>B</td>
</tr>
<tr>
<td>1015-1159</td>
<td>C</td>
</tr>
<tr>
<td>870-1014</td>
<td>D</td>
</tr>
<tr>
<td>0-869</td>
<td>F</td>
</tr>
</tbody>
</table>

**Late Policy**

*Electronic failure in submitting assignments is not an acceptable excuse for late work. Work may be turn in after the due date, but a 10 point penalty will be assessed.*

**Attendance**

Attendance is taken in each class meeting. You are allowed four absences without any penalty. Once you miss four classes, five points will be deducted for every additional class missed. Students are individually responsible for decisions regarding travel safety. In the case of inclement weather closings information will be posted on the college website at [http://www.columbiastate.edu](http://www.columbiastate.edu) and the weather information hotline 931.540.2515.

**Student Responsibilities and Conduct**

1. Each student is expected to read the textbook and complete all homework assignments.
2. A student needing additional help should talk to the instructor to set up an appointment for help. Do
not allow yourself to get behind. A student who needs additional help can:

a) make an appointment to work with a tutor
b) make an appointment to meet with the instructor

3. A student not completing the course will receive a grade of "F" if official withdrawal procedures are not followed. Please see the Columbia State Catalog for instructions. The last date to withdraw without a failing mark is March 29th see catalog at http://catalog.columbiastate.edu/.

4. If an error in grading is suspected, please email the instructor. Mistakes can occur and should be brought to the instructor’s attention.

5. Cheating and other forms of academic dishonesty are prohibited. The instructor has the authority to assign a zero for the exercise or examination. Please see the Columbia State Catalog.

6. Each student is responsible for his/her own conduct. Students are expected to be respectful of the instructor and classmates at all times.

7. Columbia State Emergency Procedures are posted in each classroom. In emergency situations follow instructions provided by faculty. Do not stop to collect belongings if told to evacuate the building or classroom. Should the building be evacuated, proceed immediately to the designated area. Faculty are responsible for checking attendance following an evacuation to determine that all students are accounted for.

8. Grades are not mailed to students. You must access grades through ChargerNet www.columbiastate.edu) five working days after grades are required in Admissions. Students needing official copies of grades must request it in writing from the Office of Admissions and Records. Call the transcript information line at (931) 540-2550 for detailed instructions. Students may print a copy of their grades from ChargerNet.

9. In compliance with ADA, students are encouraged to register with the Office of Disability Services for possible assistance with accommodations at the beginning of the semester. It is the student’s responsibility to voluntarily and confidentially provide appropriate documentation regarding the nature and extent of a disability. Contact Information for Disability Services: by phone 931.540.2857, office location JSC 160 and Fax at 931.540.2793.

10. Recording of learning activities is allowed only with faculty permission and is to be used for educational purposes by individual students. When recording is permitted, all students should be aware that voices/images may be captured during the process. No portion of instructional recordings may be reproduced or published by students. We do have the capabilities in our classroom for Panapto.

11. Columbia State students are expected to be able to produce a valid student ID upon request by faculty/staff/employees.

12. Program/institutional expectations for professionalism, confidentiality, and mutual respect extend to Internet and social networking settings. Discipline and grade consequences may be applicable to inappropriate “virtual” behavior.

**Syllabus Changes**

Necessary changes to the course syllabus will be sent to the student by e-mail and posted on the bulletin board.