



STATISTICS 0200 BASIC APPLIED STATISTICS (4 CREDITS)



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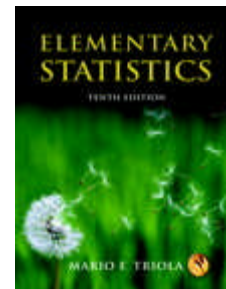
TOPICS TO BE COVERED:

1. Summarizing and Graphing Data
2. Descriptive Statistics
3. Correlation and Regression
4. Probability & Probability Distributions
5. Estimates and Sample Sizes
6. Measures of Central Tendency
7. Confidence Intervals
8. Hypothesis Testing
9. Analysis of Variance

TEXT USED: *Elementary Statistics 10th Edition* by Mario F. Triola.

COMPUTER PROGRAMS: We will make use of STATDISK Statistical software as well as Excel. The students will also be instructed on how to perform statistical calculations on the TI-83 Plus calculator.

PREREQUISITES: Must be a Junior, Senior, or Sophomore who is currently taking Weighted Algebra 2.



GRADING: Grades on this course will be determined on a 90-80-70-60 basis. The overall grade will be determined by the following.

| | |
|---------------------|--------|
| CHAPTER EXAMS | -- 25% |
| MIDTERM EXAM | -- 15% |
| FINAL EXAM | -- 20% |
| STATDISK PROJECTS | -- 15% |
| STATISTICAL STUDIES | -- 15% |
| SCHOOL GRADE | -- 10% |

FURTHER INFORMATION ABOUT COLLEGE IN HIGH SCHOOL COURSES CAN BE FOUND AT:

<http://www.as.pitt.edu/undergraduate/offices/chsp/coursesbrief.html>

PROBLEMS:

[Note: The first section of each chapter is an overview and has no assignments.]

CHAPTER 1 INTRODUCTION TO STATISTICS

| | | |
|------------------|-------|---------------------|
| 1-2 | p. 10 | #1 - 26 |
| 1-3 | p. 18 | #1- 19 odd, 21 - 26 |
| 1-4 | p. 31 | #1 - 30 |
| Review Exercises | p. 34 | #1 - 8 |

CHAPTER 2 SUMMARIZING & GRAPHING DATA

| | | |
|------------------|-------|----------------------------------|
| 2-2 | p. 48 | #1 - 14, 17 - 18, 19 - 20 |
| 2-3 | p. 54 | #1 - 10, 11 - 12 , 18 |
| 2-4 | p. 66 | #1 - 13, 16, 21 - 26 |
| Review Exercises | p. 69 | #1 - 5 |

CHAPTER 3 STATISTICS FOR DESCRIBING, EXPLORING & COMPARING DATA

| | | |
|------------------|--------|----------------------|
| 3-2 | p. 86 | #1 - 3, 5 - 27 odd |
| 3-3 | p. 105 | #3 - 27 odd |
| 3-4 | p. 116 | #1 - 13 odd, 15 - 26 |
| 3-5 | p. 126 | #1 - 6 |
| Review Exercises | p. 131 | #1 - 7 |

CHAPTER 4 PROBABILITY

| | | |
|------------------|--------|--|
| 4-2 | p. 146 | #1 - 3, 5 - 14, 17, 20, 23, 25 - 28, 29 - 33 |
| 4-3 | p. 156 | #5 - 22 |
| 4-4 | p. 165 | #2 - 9, 11 - 15 odd, 17 - 20 |
| 4-5 | p. 174 | #5 - 8, 11 - 19 odd, 21 - 24 |
| 4-6 | SKIP | |
| 4-7 | p. 186 | #5 - 12, 13 - 37 odd |
| Review Exercises | p. 131 | #1 - 16 |

Review worksheets will also be given in this section to explore other related areas.

CHAPTER 5 DISCRETE PROBABILITY DISTRIBUTIONS

| | | |
|------------------|--------|-----------------------------|
| 5-2 | p. 209 | #1 - 6, 7 - 19 odd, 21 - 22 |
| 5-3 | p. 221 | #5 - 28, 31 - 35 odd |
| 5-4 | p. 227 | #1 - 3, 5 - 19 odd |
| Review Exercises | p. 237 | #1 - 3 |

CHAPTER 6 NORMAL PROBABILITY DISTRIBUTIONS

| | | |
|------------------|--------|-------------------------------|
| 6-2 | p. 257 | #1 - 28, 33 - 40 |
| 6-3 | p. 266 | #1, 4, 5 - 16, 17 - 23 odd |
| 6-4 | SKIP | |
| 6-5 | p. 287 | #1 - 3, 5 - 19 odd |
| 6-6 | SKIP | |
| 6-7 | p. 307 | #1 - 3, 5 - 18, 9 - 12 |
| Review Exercises | p. 311 | #1 - 6 |

MIDTERM EXAM

CHAPTER 7 PROBABILITY

| | | |
|------------------|--------|---------------------------------|
| 7-2 | p. 332 | #1 - 3, 5 - 24, 17, 25 - 43 odd |
| 7-3 | p. 345 | #1, 3, 9 - 29 odd, 33 - 36 |
| 7-4 | p. 359 | #1, 3, 5 - 25 odd |
| 7-5 | p. 372 | #1, 5 - 8, 9 - 23 odd |
| Review Exercises | p. 377 | #1 - 8 |

CHAPTER 8 HYPOTHESIS TESTING

| | | |
|------------------|--------|--------------------|
| 8-2 | p. 403 | #1 - 4, 9 - 39 odd |
| 8-3 | p. 414 | #5 - 8, 9 - 21 odd |
| 8-4 | p. 423 | #6 - 18 every 3rd |
| 8-5 | p. 432 | #6 - 27 every 3rd |
| 8-6 | p. 441 | #5 - 19 odd |
| Review Exercises | p. 445 | #2 - 9, 11 - 12 |

CHAPTER 9 INFERENCES FROM TWO SAMPLES

| | | |
|------------------|--------|-----------------------|
| 9-2 | p. 463 | #2, 5 - 8, 9 - 27 odd |
| 9-3 | p. 478 | #5 - 8, 9 - 25 odd |
| 9-5 | p. 502 | #5 - 17 odd |
| 9-4 | p. 489 | #1 - 19 odd |
| Review Exercises | p. 507 | #1 - 8 |

CHAPTER 10 CORRELATION & REGRESSION

| | | |
|------|--------|-------------------|
| 10-2 | p. 532 | #1, 4, 5 - 27 odd |
| 10-3 | p. 553 | #5 - 27 odd |

Additional Section: Inference For Regression
Review worksheet will be provided for this section.

CHAPTER 11 MULTINOMIAL EXPERIMENTS & CONTINGENCY TABLES

| | | |
|------------------|--------|--------------------|
| 11-2 | p. 600 | #1 - 3, 5 - 23 odd |
| 11-3 | p. 616 | #1 - 3, 5 - 21 odd |
| Review Exercises | p. 629 | #1 - 3 |

CHAPTER 12 ANALYSIS OF VARIANCE

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|------|--------|---------|
| 12-2 | p. 650 | #1 - 14 |
| 12-3 | p. 663 | #5 - 14 |

FINAL EXAM

Time permitting, we will study Chapter 13 as an extra topic
AFTER the final exam.

ALONG WITH THESE TEXTBOOK PROBLEMS, THERE WILL BE STATDISK ASSIGNMENTS TO COMPLETE AS WELL.