# Elementary Statistics: V55.0105 

Instructor: Dr. Frank E. Curtis
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Textbook: J. E. Freund and B. M. Perles, Modern Elementary Statistics, Twelfth Edition Lecture: Mondays and Wednesdays at 2:00pm to $3: 15 \mathrm{pm}$ in Silver 101A
Office Hours: Thursdays 10:00am-11:00am and Fridays 10:00am-11:00am
Summary: The purpose of the course is to understand and use statistical methods. Mathematical theory is minimized. Actual survey and experimental data are analyzed. Computations are done with desk or pocket calculators. Topics: description of data, elementary probability, random sampling, mean, variance, standard deviation, statistical tests, and estimation.

Grading: The course grade will consist of homework (10\%), three quizzes ( $20 \%$ each), and a final (30\%). Homework will be assigned every Monday and will be due at the beginning of the following Monday's class. Homework will not be accepted after class begins. Homework can be worked on with a partner, but must be written up individually. Quizzes will be given during class hours. The location of the final will be announced later in the semester.

Tutoring: Free help is available through the College Learning Center (Weinstein Hall, www.nyu.edu/cas/clc/index.html) and through the Mathematics department (hours will be posted on the 7th floor of Warren Weaver Hall).

Calculators: Calculators are allowed.
Class Attendance: You are responsible for knowing the material as we cover it. Class attendance is highly recommended, as is reading the chapters before class.

| Week | Lecture Dates | Reading | Chapters: Topics |
| :---: | :---: | :---: | :---: |
| 1 | Wed. 9/5 | Chap. 1-4 | 1-2: Summarizing data, listing, grouping <br> 3-4: Location, variation |
| 2 | $\begin{aligned} & \hline \text { Mon. } 9 / 10 \\ & \text { Wed. } 9 / 12 \end{aligned}$ | Chap. 5.1-5.4 | 5.1-5.2: Counting, permutations <br> 5.3-5.4: Combinations, probabilities |
| 3 | $\begin{aligned} & \text { Mon. } 9 / 17 \\ & \text { Wed. } 9 / 19 \end{aligned}$ | Chap. 6.1-6.4 | 6.1-6.4: Probability rules |
| 4 | Mon. 9/24 <br> Wed. 9/26 | Chap. 6.5-6.7 | 9/24: Quiz 1 <br> 6.5-6.7: Conditional probability |
| 5 | Mon. 10/1 <br> Wed. 10/3 | Chap. 7.1 | 7.1: Expectation |
| 6 | Mon. 10/8 <br> Wed. 10/10 | Chap. 7.2 | 10/8: No class <br> 7.2: Decision making |
| 7 | $\begin{aligned} & \hline \text { Mon. 10/15 } \\ & \text { Wed. } 10 / 17 \end{aligned}$ | Chap. 7.3 | 7.3: Decision problems |
| 8 | Mon. 10/22 <br> Wed. 10/24 | Chap. 8.1-8.2 | 10/22: Quiz 2 <br> 8.1-8.2: Probability distributions |
| 9 | Mon. 10/29 <br> Wed. 10/31 | Chap. 8.3-8.5 | 8.3-8.5: Binomial, hypergeometric, and Poisson distributions |
| 10 | Mon. 11/5 <br> Wed. 11/7 | Chap. 8.7-8.8, 9.1 | 8.7-8.8: Mean, standard deviation <br> 9.1: Continuous distributions |
| 11 | Mon. 11/12 Wed. $11 / 14$ | Chap. 9.2, 9.4-9.5, 10.1 | 9.2, 9.4-9.5: Normal distribution 10.1: Random sampling |
| 12 | Mon. 11/19 Wed. $11 / 21$ | Chap. 10.6-10.8 | 11/19: Quiz 3 <br> 10.6-10.8: Central Limit Theorem |
| 13 | Mon. 11/26 <br> Wed. 11/28 | Chap. 11.1-11.3 | 11.1-11.2: Mean estimation 11.3: Deviation estimation |
| 14 | Mon. 12/3 <br> Wed. 12/5 | Chap. 12-13 | 12-13: Hypotheses Tests |
| 15 | Mon. $12 / 10$ Wed. $12 / 12$ |  | Review |
| 16 | Mon. 12/17 |  | 12/17: Final Exam (12:00pm - 1:50pm) |

