Course Website: Information will be posted on Carmen.

Instructor: Kristi Lekies, Ph.D.
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Office hours: By appointment

Teaching Assistant: Olivia Smith
Room 376 Kottman Hall
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Office hours: Tuesdays 10-11 and Thursdays 3-4 or by appointment

Class Meeting Times: Tuesday & Thursday 8:00-8:55 102 Kottman Hall (lecture)
Wednesday 9:00-11:00 382 and 231 Kottman Hall (computer lab 1)
Friday 9:00-11:00 382 and 231 Kottman Hall (computer lab 2)

Course Overview: This is an introductory data analysis course which will focus on understanding and applying basic statistical concepts, problem solving, and interpreting the results of statistical analysis. Topics include descriptive statistics, variability, correlation, regression, probability, the normal distribution, samples, sampling distributions, confidence intervals, hypothesis testing, analysis of variance, Chi-square tests, and interpretation of findings. We will also cover the presentation of findings and use a statistical software program. The overall goal is to obtain an appreciation and working knowledge of statistics and data analysis procedures that will be useful in understanding academic and other literature, preparing for advanced statistics courses, and involvement in research.

Objectives: Through this course, students will:
- understand basic statistical concepts and terminology
- be able to solve problems applying the appropriate statistical concepts and methods
- be able to interpret and communicate the results of statistical analyses
- learn statistical software programs for data analysis (SPSS)
- gain a greater appreciation for statistics and data analysis
This course meets a General Education requirement in Data Analysis. According to the OSU guidelines: “Courses in Data Analysis develop students’ understanding of basic concepts of statistics and probability, comprehension of methods needed to analyze and critically evaluate statistical arguments, and recognition of the importance of statistical ideas. Students will develop skills in drawing conclusions and critically evaluating results based on data.”


(Recommended) Urdan, Timothy C. Statistics in Plain English, 2nd or 3rd Edition. This book can be purchased at campus bookstores or online. A copy will be on reserve at the Food, Agricultural, and Environmental Sciences Library in 322 Howlett Hall.

Other Materials: Basic calculator. Note: Calculators on phones are not permitted.

Method of Instruction: The course meets three times per week, with two lectures and a computer lab session. Lectures will be used to present material; the computer lab will provide an opportunity to learn and use statistical software, review key concepts, and participate in small group activities. Daily attendance is expected, in order to best learn the material and get the most from this course. If you are aware of a time in which you will not be able to attend class, please talk with the instructor in advance. In case of illness or emergency, contact the instructor as soon as possible.

Grading: Your grade will be based on the following:
1. First exam – 200 points
2. Second exam – 200 points
3. Final exam – 200 points
4. Weekly homework assignments (12) – 240 points
5. Computer lab activities (12) – 120 points
6. Assignment #1 Interview – 20 points
7. Assignment #2 Journal article analysis – 20 points
Total 1000 points

More information about the assignments and activities will be presented in class. All assignments are due at the start of class unless otherwise stated.
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**Policies:**

1. No cell phones, surfing the Internet, checking e-mail or Facebook, or text messaging allowed in class or lab. This policy will be strictly enforced.

2. Assignments are to be turned in during class on the day they are due. Late assignments will result in a loss of 10% of points for each day the assignment is late.

3. All computer lab activities will be turned in the day of the lab. Therefore, if you miss lab, you will not earn points for the day unless excused or special arrangements are made with the instructor.

4. You are expected to attend the computer lab section that you signed up for. Only in limited situations and with prior permission of the instructor, will you be allowed to change lab sections.

5. Exams will take place on the specified dates and times. Only in rare, extenuating circumstances can they be taken early or late, and this will require documentation by university authorities.

6. If you have concerns about the course, please schedule a time to meet with the instructor or teaching assistant to discuss them. Any questions regarding grades must be received within one week of receiving the grade.
Accommodation of students with disabilities:
Any student with a documented disability who may require special accommodations should let the instructor know as early in the quarter as possible to receive effective and timely accommodations. The office for Disability Services (150 Pomerene Hall; 292-3307; 292-0901 TDD) verifies the need for accommodations and assists in the development of accommodation strategies.

Academic Misconduct: Academic misconduct of any kind will not be tolerated. Examples of academic misconduct include, but are not limited to, cases of plagiarism and dishonest practices in connection with examinations. If you have a question about approaches and procedures and what constitutes academic misconduct, ask the instructor. Faculty Rule 3335-5-487 will be followed in cases of academic misconduct – “Instructors shall report instances of alleged academic misconduct to the committee (on academic misconduct).”

Class schedule and important dates:

**Week of August 27:** Introduction to data analysis (Chapter 1)
- No computer lab

**Week of Sept. 1:** Frequency distributions and graphs; measures of central tendency (Chapters 2-3)

**Week of Sept. 8:** Measures of variability; other descriptive statistics (Chapters 4-5)
- Homework #1: Due Thursday, Sept. 11

**Week of Sept. 15:** Other descriptive statistics; correlation and regression (Chapters 5-6)
- Homework #2: Due Thursday, Sept. 18

**Week of Sept. 22:** Correlation and regression (Chapters 6-7)
- Homework #3: Due Thursday, Sept. 25

**Week of Sept. 29:** Theoretical distributions (Chapter 7)
- Assignment #1: Due Tuesday, September 30
- Homework #4: Due Thursday, October 2

**Week of Oct. 6:** Samples, sampling distributions, and confidence intervals (Chapter 8)
- Exam 1: Tuesday, October 7
- Homework #5: Due Thursday, October 9
Week of Oct. 13: Samples, sampling distributions and confidence intervals (Chapter 8)
    Homework #6: Due Thursday, October 16

Week of Oct. 20: Hypothesis testing: One sample designs (Chapter 9)
    Homework #7: Due Thursday, October 23

Week of Oct. 27: Hypothesis testing: Two sample designs (Chapter 10)
    Homework #8: Due Thursday, October 30

Week of Nov. 3: Hypothesis testing: Two sample designs (Chapter 10)
    Exam 2: Thursday, November 6
    Homework #9: Due Thursday, November 6

Week of Nov. 10: Analysis of variance: One way classification (Chapter 11)
    Tuesday, November 11 Veterans Day (no class)

Week of Nov. 17: Analysis of variance: One way classification (Chapter 11)
    Homework #10: Due Tuesday, November 18

Week of Nov. 24: Analysis of variance: One factor repeated measures (Chapter 12)
    Homework #11: Due Tuesday, November 25
    No class on Thursday, November 27 (Thanksgiving)
    No computer lab

Week of Dec. 1: Analysis of variance, Chi-square tests (Chapters 12-14)
    Assignment #2: Due Thursday, December 4
    Review lab

Week of Dec. 8: Chi-square tests (Chapter 14)
    Homework #12: Due Tuesday, December 9
    No computer lab
    Last day of class is December 9

Final Exam: December 15 (Monday), 8:00-9:45 a.m.