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JTC 270: Analyzing Data for Journalism and Media
Fall 2023
Lectures: T, R 12.30 -1.45 pm, Location: Animal Science 131

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Instructor: Dr. Gayathri (Gaya) Sivakumar
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Office Hours: W 12 – 2 pm and by appointment

Course Description

This course is designed to provide you with an understanding of the fundamental concepts of basic statistics. By the end of this course, you should gain a good understanding of how to interpret and present statistics and data to better communicate with one's audience. In this class, you will develop skills for data description, visualization, estimation, and testing of differences and associations.

Class Format

This class is designated as a face-to-face class. Most of the instruction will be provided in form of lectures. There will also be some components of videos, group discussions, and group work to complement the lectures. I will upload PowerPoint slides before each lecture and the students are expected to complete the assigned reading before they turn up for the class.

Textbook/Course Readings

Krieg, E.J. 2019. Statistics and Data Analysis for Social Science. 2nd ed. Thousand Oaks, CA: SAGE Publications, Inc. ISBN: **978-1544352657**

Course Materials & Equipment

This course requires Microsoft Excel for statistical computing and graphics.

Requirements

Attendance. You are expected to attend all class lectures. Attendance will be taken in lectures and will impact your participation grade. There will be no penalty for the first two unexcused absences. Every unexcused absence after that will cost you the participation points for the class you missed**.**

Excuses will be provided for absences only if the absences are due to medical emergencies (doctor note is needed for all medical excuses), because you are traveling with a university-affiliated team or group, or because some unavoidable circumstances arise. Please note that holiday travel arrangements, which are under your control, are not considered unavoidable

circumstances! If any due date falls on the religious holiday that you observe, you should come and see me as early as you can for a workable arrangement.

If you know you will be absent from class on a specific day (especially on exam or assignment due days), you should speak to me at the beginning of the semester or as soon as you can make appropriate arrangements.

Participation. You are expected and encouraged to participate in class discussions actively. Asking questions, making observations, introducing issues for debate, and even engaging in a little self-disclosure are all good ways to start. Your participation grade, worth 10% of the total grade, will be assigned based on your attendance record along with the amount and quality of your class participation. You may lose points on your participation grade for more than one unexcused absence, regular tardiness, and disrespect of others in the class. **Also, if you never speak up in class, you cannot expect to receive a full participation score.**

Grade Reviews. After tests and assignments have been returned, you will have **five school days** to make an appointment with me to discuss any concerns you have about how your grade was calculated. After that time, grades are final

Class Rules. I expect all students to pay attention to the lectures and make contributions to the class discussions. Disruptive behaviors like talking during lectures, texting in class, surfing the web, reading newspapers, etc. will not be tolerated. Students engaging in such behaviors will be asked to leave the class.

Grading

Final grades in this course will be based on the +/- grading system.

Note: A = excellent, B = good, C = average, D = poor, and F = failing.

Assignment Type	% of Total Grade	Total Points	Notes
1. **Exams**	**37.5%**	**75**	***In Class Submission**
1.1. Exam 1	12.5%	25	
1.2. Exam 2	12.5%	25	
1.3. Exam 3	12.5%	25	
2. **Individual Assignments**	**47.5%**	**95**	***Turn in the assignments on Canvas**
2.1. Assignment 1	5%	10	
2.2. Assignment 2	5%	10	
2.3. Assignment 3	10%	20	
2.4. Assignment 4	5%	10	
2.5. Assignment 5	5%	10	
2.6. Assignment 6	5%	10	

2.7.	Assignment 7	12.5%	25	
3.	**Creative Project**	**7.5%**	**15**	*Attendance will be taken before every class
4.	**Participation**	**7.5%**	**15**	*Based on the judgment of the Instructor
5.	**Bonus Points**	Can earn a maximum of 2.5% of total points	Can earn up to 5 points	***Extra credit Opportunities are available through SONA**

Assignments

This class requires you to take exams and complete individual assignments. Detailed descriptions of all assignments are available on the assignments page of Canvas.

Assignment Submissions

The deadlines for turning in assignments are provided in the syllabus. All assignments must be turned in through Canvas. I will **NOT** accept any late submission. If an emergency keeps you from turning in your work before the deadline, email me as soon as you can. If you have trouble turning in your assignments on Canvas due to unexpected technical difficulties, you can email the assignment to me **BEFORE** the deadline expires.

Exams

There will be three exams during the semester. The exams are not cumulative. In other words, in the second exam, you will not be tested directly on any material already covered in the previous test. You will, however, be expected to apply the fundamental skills and understanding acquired earlier in the course. All exams will be administered in the classroom only. This class has not been set up for online proctoring so online tests will not be administered.

Extra Credit Opportunities

You will have opportunities to earn up to 2.5% of the total grade through extra credit opportunities provided via SONA.

Special Needs

If you have a disability and need special assistance during class sessions or tests, you must register with the Resources for Disabled Students Office. I will be happy to work with this office to ensure that your needs are met.

Academic misconduct

You are heartily encouraged to work with other students during the semester if it helps you master the materials in this course, but I will not tolerate any act of deception, including cheating, plagiarism, making up or falsifying information, or buying a paper and representing that paper as if you did the work. Evidence of academic dishonesty may result in failure of the assignment, and, possibly, this course. Acts of academic dishonesty will be dealt with according to the Academic Integrity Policy of the CSU General Catalog and the Student Conduct Code. At a minimum, a grading penalty will be assessed, and a report will be sent to the Office of Conflict Resolution and Student Conduct Services. You may grieve this action through the appropriate channels.

Course Schedule and Readings (subject to change)

Week 1

Tuesday, Aug 22: Course introduction: Syllabus, Assignments, & Class Rules

Thursday, Aug 24: **Lecture:** Introduction to statistics and the research process
         Reading: Chapter 1- Concepts, Variables and Measurement

Week 2

Tuesday, Aug 29: **Lecture:** Levels of measurement and research design
         Reading: Chapter 1- Concepts, Variables and Measurement

Thursday, Aug 31: **Lecture:** Data representation and checking validity and reliability of data
         Reading: Chapter 1- Concepts, Variables and Measurement

Week 3

Tuesday, Sep 5: **No Class**: Work on Assignment 1

Thursday, Sep 7: **Lecture:** Frequencies, Proportions, Percentages and Cumulative Percentages
         Reading: Chapter 2- Frequency Tables

Week 4

Tuesday, Sep 12: **Lecture:** Frequency Table for Ordinal and Interval/Ratio variables
         Reading: Chapter 2- Frequency Tables

Thursday, Sep 14: **No Class**: Work on Assignment 2

Week 5

Tuesday, Sep 19: **Lecture:** Calculating Mean, Mode and Median
           Reading: Chapter 3 – Measures of Central Tendency

Thursday, Sep 21: **Lecture:** Calculating Measure of Central Tendency using Grouped Data
           Reading: Chapter 3 – Measures of Central Tendency
Week 6

Tuesday, Sep 26: **No Class:** Work on Assignment 3

Thursday, Sep 28: **Exam 1**

Week 7

Tuesday, Oct 3: **Lecture**: Range, Interquartile Range, Variance
           Reading: Chapter 4 – Measures of Dispersion

Thursday, Oct 5: **Lecture-** Standard Deviation
           Readings: Chapter 4 – Measures of Dispersion

Week 8

Tuesday, Oct 10: **No Class:** Work on Assignment 4

Thursday, Oct 12: **Lecture:** Using Excel for Data Analysis

Week 9

Tuesday, Oct 17: **No Class:** Watch the Assigned Video Playlist

Thursday, Oct 19: **No Class:** Work on Assignment 5

Week 10

Tuesday, Oct 24:   **Lecture:** Understanding Probability
             Readings: Chapter 5 – Probability and the Normal Curve

Thursday, Oct 26: **Lecture:** Understanding normal curve and z Scores
           Readings: Chapter 5 – Probability and the Normal Curve

Week 11

Tuesday, Oct 31: No Class: Work on Assignment 6

Thursday, Nov 2: **Lecture:** Sampling and different types of sampling

Readings: Chapter 6 – Probability – From Samples to Statistics

Week 12

Tuesday, Nov 7: **Lecture:** Hypothesis Testing and Standard Errors
   Readings: Chapter 6 – Probability – From Samples to Statistics

Thursday, Nov 9: **Lecture:** t Distribution, Difference between Means
   Readings: Chapter 6 – Probability – From Samples to Statistics
Week 13

Tuesday, Nov 14: **No Class:** Work on Assignment 7

Thursday, Nov 16: Exam 2

Week 14

Tuesday, Nov 21: Fall Recess

Thursday, Nov 23: Fall Recess

Week 15

Tuesday, Nov 28: **Lecture:** Reading Cross Tabulation Tables and Chi - Square
   Reading: Cross Tabulation and Chi Square
   Group Work: Introduction to Creative Project

Thursday, Nov 30: **Lecture:** Correlations
   Readings: Chapter 10 – Correlation and Regression

Week 16

Tuesday, Dec 5: Exam 3

Thursday, Dec 7: **Creative Project Presentation**