**DAVIS UNIVERSITY**

**COURSE SYLLABUS**

**MGT230: STATISTICS**

**SUMMER QUARTER 2024**

**QUARTER:**  SUMMER QUARTER 2024

**COURSE SYLLABUS FOR:**  MGT230 STATISTICS

**CREDIT HOURS:**  4 CREDITS

**CONTACT HOURS:**  60

**INSTRUCTOR:**

**INSTRUCTOR EMAIL:**

**INSTRUCTOR OFFICE HOURS:**

**COURSE DESCRIPTION:**  An introduction to the following is covered in this course:   methods of collection, tabulation, presentation, and analysis of numerical data including frequency distribution, measures of central tendency and dispersion, construction of tables and drafts, probability, sampling, decision-making under uncertainty, study of indexes, simple regression, and correlation.

**TEXT:**   Triola, Elementary Statistics, Pearson Publishing, 13th Edition

**PREREQUISITES:**  MTH102 Introductory Algebra I

**COURSE LEARNER OUTCOMES**

Upon completion of this course the student will be able to:

1.  Understand the basics of Statistics as it relates to methods of data collection, tabulation, analysis and presentation.

2. Recognize and apply various probability distributions and assess assumptions.

3. Perform basic statistical calculations and analyze graphs.

4. Analyze research questions utilizing statistical data to draw conclusions with an understanding of the limitations of statistical methods.

**LATE WORK POLICY:** All students are expected to submit homework assignments electronically on the date specified on the syllabus No late homework will be accepted and the student will receive a "0" (zero) for the homework assignment. Should the student refuse to complete the assigned work for the class, it could result in the student failing the class. All work assigned is expected to be completed on the date assigned. The instructor reserves the right to alter the schedule as necessary. Please be sure to check your email/Moodle for any changes to the schedule.

**PLAGIARISM AND COPYRIGHT INFRINGEMENT POLICY:** Work that is found to be plagiarized receives a grade of zero and often causes a student to fail a class. Documentation of plagiarism is added to the student's academic file as a violation of accepted student conduct and is subject to disciplinary action. Plagiarism is the use of another person's exact words, or their ideas written in the student's words without giving the original author credit.

Plagiarism can result from any of the following:

- Quote material directly without using quotation marks.
- Paraphrase the original so that many of the phrases are the same as the original. A good rule is no more than 3 or 4 words in a row should be the same as the original.
- Copy the original sentence pattern, substitution synonyms for key words.
- Neglect to indicate the source of the original material.

**ASSESSMENTS:**

| Content | |
| --- | --- |
| Midterm exam | 30% |
| Homework | 15% |
| Quizzes | 25% |
| Final exam | 30% |
| Total | 100% |

**COURSE GRADE:**   **A = 93%-100%**

                        **B = 85%-92%**

**C = 77%-84%**

**D = 70%-76%**

**F = below 70%**

**TENTATIVE CLASS SCHEDULE:**

**(Subject to change)**

| Week:<br>Date | Content Covered | Assignments &<br>Assessment Due |
|---|---|---|
| **Week 1:** | 1.1: Statistical & Critical Thinking<br>1.2: Types of Data<br>1.3: Collecting Sample Data<br>2.1: Frequency Distributions for Organizing and Summarizing Data<br>2.2: Histograms<br>2.3: Graphs that Enlighten & Graphs that Deceive | |
| **Week 2:** | 2.4: Scatterplots, Correlation, and Regression<br>3.1: Measures of Center<br>3.2: Measures of Variation<br>3.3: Measures of Relative Standing and Boxplots<br>4.1: Basic Concepts of Probability<br>4.2: Addition Rule & Multiplication Rule | |
| **Week 3:** | 4.3: Complements, Conditional Probability, and Bayes' Theorem<br>4.4: Counting<br>5.1: Probability Distributions<br>5.2: Binomial Probability Distribution<br>5.3: Poisson Probability Distributions<br>6.1: The Standard Normal Distribution<br>6.2: Real Applications of the Normal Distribution | Midterm Exam-Friday |
| **Week 4:** | 6.3: Sampling Distributions & Estimators<br>6.4: The Central Limit Theorem<br>7.1: Estimating a Population Proportion<br>7.2: Estimating a Population Mean<br>8.1: Basics of Hypothesis Testing<br>8.2: Testing a Claim About a Proportion | |

| Week 5: | 8.3: Testing a Claim About a Mean<br>9.1: Two Proportions<br>9.2: Two Means: Independent Samples<br>9.3: Two Dependent Samples (Matched Pairs)<br>10.1: Correlation<br>10.2: Regression | Final Exam-Friday |
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