Course Title: ECO 201 Introduction To Business Statistics
Term: Fall 2022
Instructor: TBA
Course Credit: 3
Mode of Instruction: Online

Course Description:

This course introduces the basic business statistics including a review of descriptive measures, selected discrete probability distributions, selected continuous probability distributions, and statistical inference; statistical decision making, correlation, and regression. Understanding statistical techniques can help any manager responsible for marketing, management, accounting, sales, or other business functions. This course will also cover graphical representations of data that stakeholders may expect when reviewing the results of any statistical analysis.

Course Prerequisites:

MAT 121 Finite Mathematics With Calculus

Learning Outcomes:

By the end of the course, the student should be able to:

A. Differentiate between descriptive and inferential statistics;

B. Distinguish between the four different scales of measurement: nominal, ordinal, interval, and ratio;

C. Identify the appropriate graphical or tabular method for presenting your data;

D. Create meaningful presentations and graphs including frequency polygons, bar graphs, pie charts, line graphs, histograms;

E. Calculate probability and explain its practical application.

Course Material:

Ronald M.(Ronald M. Weiers) Weiers, *Introduction to Business Statistics*, 7th, South-Western College Pub, 2016.

Evaluation:

- Homework [20%]

- Quizzes [20%]

- Mid-term Exam [25%]

- Final Exam [35%]

Description of the Evaluation tasks:

Assignment/ Essay/ ... : During the term, students will be required to finish several evaluation tasks within due date. All the tasks are linked with specific course topics/outcomes and will adequately assess students' competence and learning outcomes. Students are encouraged to meet with instructor about these tasks at any point.

Mid-term/ Final Exams/ Quiz/... : There may be periodic quizzes given at the beginning of lecture sessions; the feedback from these quizzes will monitor the progress of the learners and help to set learning priorities. There will be mid-term exam/ final exam for the course. They are the basic criteria for the evaluation of students' learning outcomes and final grade.

Grading Policy:

Students are supposed to finish each online lecture. Prior to each class, students should finish the required readings. During the class time, students are encouraged to make use of all relevant online course resources and communicate with the instructor. Students' grades are accumulated based on the cumulative evaluations.

Students' letter grade will be assigned according to the following scale:

A+ 90-100	A 85-89	A- 80-84
B+ 77-79	B 73-76	B- 70-72
C+ 67-69	C 63-66	C- 60-62
D+ 57-59	D 53-56	D- 50-52
F <50		

Academic Integrity:

Students must strictly adhere to the university's academic integrity rule; and all essays, exams and any other form of academic assignments must adhere to these rules. Any form of plagiarism, cheating, or misappropriation of materials will be considered a violation of academic integrity and will be punishable by the university.

Withdrawal from the Course(s):

Students will be able to apply for a transfer or withdrawal within 3 days of the starting date of the course. If a withdrawal is applied for within 3 working days, the tuition fee will be fully refunded. After 3 days, the tuition fee will not be refunded. If a withdrawal is applied for in the first two weeks, it will be recorded as W (Withdraw) on the course transcript. After this initial two-week period, the class will be recorded as F (Fail).

Tentative Schedule:

Week 1

1	Visual Description
2	Statistical Description
3	Standardizing the Data
4	Sampling

5	Discrete Probability Distributions **Homework#1**

Week 2

6	Sampling Distributions
7	Confidence Intervals
8	Hypothesis Test
9	Analysis of Variance **Quiz#1**
10	Chi-Square Applications

Week 3

11	Nonparametric Methods
12	Simple Linear Regression
13	**Mid-term Exam**
14	Residual Analysis
15	Multiple Regression **Homework#2**

Week 4

16	Model Building
17	Fitting a Polynomial Regression
18	Multiple Regression With Qualitative Predictor Variables
19	The Correlation Matrix
20	Stepwise Regression **Quiz#2**

Week 5

21	Models for Time Series and Forecasting
22	Fitting a Linear or Quadratic Trend Equation
23	Centered Moving Average For Smoothing a Time Series
24	Autoregressive Forecasting
25	**Final Exam**