

MA 1230 - STATISTICS

Credits: 3

This is an introductory course in the fundamentals of modern statistical methods. The goal of this course is to provide students with the basic knowledge and skills for working with statistics. Topics include descriptive statistics, probability, random sampling, tests of hypotheses, estimation, simple linear regression, and correlation. Upon successful completion of the course, students have increased their understanding of statistics and have improved their capacity for working with statistics.

Prerequisites: none

Course Learning Outcomes:	Exceeding	Meeting	Developing	Not meeting	Program Outcomes	Institutional Outcomes
Understand how data is collected, analyzed, and illustrated	Analyzes collected data	Explains how to identify and collect data	Identifies data to collect, but not how to collect it	Does not understand how data is collected, analyzed, or illustrated	LA1, LA6	Critical Thinking
Understand how to create graphs and charts using Excel.	Create unique graphs and charts in Excel	Reproduces accurate graphs and charts in Excel	Recognizes the correct graphs and charts, but not able to create them	Does not create graphs and charts using Excel	LA1, LA6	Critical Thinking
Understands descriptive statistics for sets of quantitative data	Interprets descriptive statistics for sets of quantitative data	Calculates descriptive statistics for sets of quantitative data	Recognizes descriptive statistics for sets of quantitative data	Does not understand descriptive statistics for sets of quantitative data	LA1, LA6	Critical Thinking
Understands fundamental inferential statistics for a set of data	Intreprets fundamental inferential statistics for a set of data	Calculates fundamental inferential statistics for a set of data	Recognizes fundamental inferential statistics for a set of data	Does not understand fundamental inferential statistics for a set of data	LA1, LA6	Critical Thinking
Understands a variety of statistical analyses	Evaluates stastical analyses	Explains a variety of statistical analyses	Recognizes a variety of statistical analyses	Does not understands a variety of statistical analyses	LA1, LA6	Critical Thinking