

Business Department Course Outline

CISQ 2013-Business Statistics (On Demand)

Catalog Description: This course is an introduction to probability and statistics. Topics include collecting, presenting, and describing data; probability; probability distribution including normal sampling student –T and F distributions, decision-making through hypothesis testing; and simple linear regression.

Prerequisites:

MATH 1204 (CISQ 1103 recommended.)

Credit hours/Contact hours/Load hours:

3/3/3

Target Audience/Transferability: This course WILL NOT transfer to the UA Walton College of Business (WCOB) and may not transfer to other 4-year institutions.

Student Learning Outcomes:

The student will:

- Use statistical vocabulary
- Construct various frequency distributions of grouped and ungrouped data.
- Calculate and interpret descriptive statistics of samples and populations. (Measures of central tendency, measures of dispersion).
- Calculate probabilities
- Use the Central Limit Theorem to calculate the probabilities of the mean for any distribution
- Understand and identify key principles of statistical reasoning and statistical methods.
- Apply concepts of data and data representation in a real-world context.
- Calculate variation and central tendency and recognize patterns in distributions.
- Apply concepts of probability and risk in real life scenarios.
- Determine correlation and causation and distinguish between them in context.
- Apply concepts of hypothesis testing and utilize t-tests, z-tests, and ANOVA in real world situations.

Topics:

- Probability Theory
- Estimation of population characteristics
- Research design and hypothesis testing
- Measuring and predicting relationships
- Understand and interpret basic data analysis techniques

Forms of Assessment:

Homework module completion