COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: ITSE 2370

Course Title: Descriptive Analytics

Course Description: *An introduction to principles and techniques in data analysis for problem solving and decision making used in business and industry.*

Course Credit Hours: 3
Lecture Hours: 3
Lab Hours: 1

Prerequisite: ITSE 2309, ITSW 1304, and MATH 1342

Student Learning Outcomes:

- **Collin Outcomes:** Upon successful completion of this course, students will:
  1. Explain difference between data and information.
  2. Explain metrics, measurement, and measures.
  3. Describe the groups of data classification.
  4. Explain the concept of a model and the ways a model can be characterized.
  5. Build a simple mathematical model.
  6. Determine the appropriate chart to visualize different types of data.
  7. Apply the Pareto Principle to analyze data.
  8. Construct a frequency distribution for both discrete and continuous data.
  9. Construct a relative frequency distribution and histogram.
  10. Compute cumulative relative frequencies.
  11. Find percentiles and quartiles for a data set.
  12. Describe the different measures of location.
  13. Compute the mean, median, mode, and midrange of a data set.
  14. Use measures of location to make a practical business decision.
  15. Describe the different measures of dispersion.
  16. Compute the range, interquartile range, variance, and standard deviation of a data set.
  17. Use measures of dispersion to make a practical business decision.
  18. Explain the concept of probability and how it is applied in a business context.
  19. Use expected values to support simple business decisions.
  20. Apply Statistical Thinking to a business application.

Secretary's Commission on the Acquisition of Necessary Skills (SCANS) - SCANS skills are a group of foundational skills and workplace competencies that the Secretary's Commission on the Acquisition of Necessary Skills established as vitally important for workplace success in the 21st century. In Collin's workforce programs, the SCANS skills are developed and reinforced throughout the curriculum to provide students with an opportunity to hone these skills/competencies in the context of their education. Over the course of an entire degree program, the successful student is expected to demonstrate all of the SCANS skills and competencies as part of their education. The SCANS Foundation Skills and Workplace Competencies are described at:
http://www.collin.edu/academics/programs/Workforce_SCANS_Skills_Syllabi_Code_Key.pdf

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook.*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-D140 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.