

Department: Mathematics

Course Title: Dual Enrollment Probability and Statistics

Course #: 461D

DESCRIPTION OF COURSE: Dual Enrollment Probability and Statistics is for the student seeking college credit in Probability and Statistics. Topics include the following: tabulation of data, measurements of central tendency and dispersion, sampling, types of distributions, probability, hypothesis testing and elementary aspects of correlation. Assessments will include quizzes, exams, practice exercises, cases studies, individual and groups projects, and a cumulative final exam. A graphing calculator is required.

| REQUIRED TOPICS OF STUDY | SUGGESTED INSTRUCTIONAL TIME | STANDARDS/ ASSESSMENT ANCHORS |
|------------------------------------|------------------------------|-------------------------------|
| Introduction and Organizing Data | 1.5 weeks | 2.6.11.B |
| Averages and Variation | 1 week | 2.6.11.B |
| Elementary Probability Theory | 1 week | 2.7.11 |
| Discrete Probability Distributions | 2.5 weeks | 2.7.11.D |
| The Normal Distribution | 2.5 weeks | 2.6.11.A,I 2.7.11.D |
| Sampling Distributions | 2 weeks | 2.6.11.A,G |
| Estimation | 2 week s | 2.6.11.D |
| Hypothesis Testing | 2.5 weeks | 2.6.11.H |
| Correlation and Regressions | 2 weeks | 2.6.11.C |
| Chi-Square Distributions | 1 week | 2.7.11.D |

INSTRUCTIONAL RESOURCES:

Textbook: Brase and Brase, *Understandable Statistics, 8th Edition*, Houghton Mifflin, 2006

Outside Reading: Huff, *How to Lie with Statistics*, W. W. Norton, 1954