

MATH1207 - Elementary Statistics

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| Credits: | 3 (3/0/0) |
| Description: | Meets MnTC Goal Areas 2 and 4. This course will investigate descriptive and inferential statistical concepts including measures of central tendency, measures of variation, measures of position, frequency tables, statistical graphs, probability distributions, hypothesis tests, confidence intervals, regression and correlation. TI calculators, MINITAB or EXCEL may be used for data analysis. |
| Prerequisites: | <ul style="list-style-type: none"> • MATH1114 OR • MATH1118 OR • by placement |
| Corequisites: | |
| Pre/Corequisites*: | |
| Competencies: | <ol style="list-style-type: none"> 1. Demonstrate knowledge of statistical terms and concepts. 2. Organize and represent data using frequency distributions. 3. Organize and represent data using graphs. 4. Summarize data using measures of central tendency, variation, and position. 5. Use probability properties and counting techniques to find the probability of events. 6. Analyze the characteristics of discrete probability distributions including Binomial, Multinomial, Poisson, and Hypergeometric. 7. Analyze the characteristics of the normal distributions including the central limit theorem. 8. Identify the confidence intervals for the mean, proportion, variance, and standard deviation. 9. Demonstrate the process of hypothesis testing for specific values of the mean, proportion, variance, and standard deviation. 10. Perform a linear correlation and regression analysis. |
| MnTC goal areas: | <ol style="list-style-type: none"> 2. Critical Thinking 4. Mathematics/Logical Reasoning |

*Can be taking as a Prerequisite or Corequisite.