

## MATH1112 - Applied Statistics

Credits:	3 (3/0/0)
Description:	Meets MnTC Goal Areas 2 and 4. This course focuses on the principles and applications of statistics and data analysis with an emphasis on inference. Students acquire a solid foundation in the basics of statistics and its application in solving practical problems. This course uses examples from various disciplines to illustrate the relevancy of statistics in real-world situations. Topics include frequency distributions, introduction to probability, normal distribution, central limit theorem, design of experiments, estimation, simple linear regression and hypothesis testing.
Prerequisites:	<ul style="list-style-type: none"> <li>• MATH1020</li> <li>OR</li> <li>• Placement Exam</li> </ul>
Corequisites:	<ul style="list-style-type: none"> <li>• MATH0097</li> </ul>
Pre/Corequisites*:	
Competencies:	<ol style="list-style-type: none"> <li>1. Classify data by level of measurement.</li> <li>2. Demonstrate knowledge of sampling techniques.</li> <li>3. Organize and represent data using frequency distributions.</li> <li>4. Organize and represent data using graphs.</li> <li>5. Compute measures of central tendency and variation.</li> <li>6. Perform a linear correlation and regression analysis.</li> <li>7. Analyze the characteristics of a normal distribution, including the central limit theorem.</li> <li>8. Find the probability of an event using probability properties and counting techniques.</li> <li>9. Estimate population parameters using confidence intervals.</li> <li>10. Perform hypothesis testing and interpret the results.</li> </ol>
MnTC goal areas:	<ol style="list-style-type: none"> <li>2. Critical Thinking</li> <li>4. Mathematics/Logical Reasoning</li> </ol>

\*Can be taking as a Prerequisite or Corequisite.