

Course Title	Statistics for Management
Course code	STAT 103
Pre-required courses	STAT 101
Course Level	Third
Credit Hours	3 hours
Teaching Language	Arabic
<b>Course Description:</b>	
<p>Applied Statistics contains basic and selected topics that deepen the students' abilities to solve some economic problems statistically by learning the concept of probability theory and related topics to this theory such as probability distributions, sampling distribution, confidence intervals types and test hypotheses. The course focuses on using the software of SPSS as to acquire a fast skill to analyze data accurately.</p>	
<b>Course Aims:</b>	
<p>The course aims to:</p> <ul style="list-style-type: none"> <li>• Introduce some general statistical methods to the students and how to use them without going into the details, and develop the skills of thinking and analysis by solving various issues.</li> <li>• Define the concept of probability theory for students in a simple way and using the laws of probability to invest them in several life applications.</li> <li>• Introduce the meaning of probability distributions in general for the students, with focusing on the most important discrete and continuous probability.</li> <li>• Introduce the meaning of Sampling distributions and the methods of selected them.</li> <li>• Be familiar with the ways of using statistical estimation in two different ways.</li> <li>• Test hypotheses for several parameters are introduced.</li> <li>• Acquire the skill of scientific accuracy, simplicity and logical sequence in solving examples and exercises using SPSS software through a series of multiple regression issues.</li> </ul>	
<b>Course Contents:</b>	
<ul style="list-style-type: none"> <li>• Probability theory:                  Sets, Random Experiment, Sample Space and Events                  Counting Rules - Definition of Probability                  Axiom's of Probability - Conditional Probability                  Bayes' Theorem and Independence</li> <li>• Random Variables:                  Discrete and Continuous Random Variables</li> <li>• Probability Distributions:                  Discrete and Continuous Probability Distributions                  Mathematical Expectation</li> <li>• Estimation:                  Point estimation and interval estimation for the mean, variance, and Proportion                  Difference between two Means                  Difference between two Proportions                  Ratio of Variances</li> </ul>	

- Test of Statistical Hypotheses:
  - On mean, Variance, and Proportion
  - On equality of two means
  - On equality of two variances
  - On equality of two proportions
- One-way analysis of variance.