

Module Code	MA3011	Title	Applied Statistics			
Credits	02	Hours/Week	Lectures	02	Pre-requisites	MA 1022
			Lab/Tutorials	-		
<u>Learning Objectives</u>						
<ul style="list-style-type: none"> • To provide students with skills necessary to analyze data • To draw meaningful conclusions from the analysis in both written and oral form • To provide an understanding of the statistical techniques that are used. • To ensure that students are familiar with a use of a statistical package 						
<u>Learning Outcomes</u>						
<ul style="list-style-type: none"> • Identify the role of probability and statistics in their discipline area • Perform a range of statistical procedures related to the manipulation and interpretation of data. • Distinguish between types of statistical tests that may be used to analyze data • Demonstrate basic knowledge of assessing the appropriateness of statistical models. • Demonstrate practical expertise associated with the use of statistical package in performing basic statistical procedure 						
<u>Outline Syllabus</u>						
<u>Discrete and continuous random variables:</u> Expectation, mean and variance of Bernoulli, Geometric, Binomial, Poisson, Uniform, Exponential and Normal Distributions.						
<u>Statistical Inference:</u> Sampling distributions, central limit theorem, confidence intervals for mean and variance. Hypothesis tests for mean. Difference between means, proportions and variance. Goodness-of-fit tests and contingency table. Regression, correlation, least square estimation and hypothesis tests in simple linear regression. Introduction to Quality Control, O.C Curve. Control charts, attribute type sampling schemes. Variable type sampling schemes						
<u>Practical Work:</u> Use of MINITAB for statistical testing and regression analysis..						