

11. Details of subject	Contents	Hours
Week 1	<p>Topic 1: Basic Arithmetic</p> <ul style="list-style-type: none"> • Define what is arithmetic. • Identify the four basic rule of Arithmetic • Apply the rules to fractions • Apply the rules Decimals • Apply the rules to Negative Numbers • Calculate the terms involving powers and roots. • Evaluate terms involving powers and roots • Evaluate terms involving a sequence of operations and the use of brackets. • Approximate data using founding, significant figures. <p>By the end of this topic, students are expected to be able to:</p> <ul style="list-style-type: none"> • solve the calculations involving whole numbers, involving fractions, decimals and also calculate the terms involving powers and roots. <p>Further reading for this lesson: Croucher, J. S.- <i>Mathematics and statistics for business</i> (2nd) , MgGraw - Hill Book Company, Sydney (1994), Jon Curwin & Roger Slater – <i>Quantitative Methods for Business Decisions</i> (2002).</p>	4
Week 2	<p>Topic 2: Introduction to Statistics</p> <ul style="list-style-type: none"> • Descriptive statistics, Inferential statistics, Population and samples, Quantitative and qualitative data. <p>By the end of this topic, students are expected to be able to:</p> <ul style="list-style-type: none"> • Define terms commonly used in statistics. • Differences between descriptive and inferential statistics, population and samples, and quantitative and qualitative data are explained with examples. <p>Further reading for this lesson: Kullandavelu,S.- <i>Busiess Statistics</i>, Stamford Collage Group (1996). Jon Curwin & Roger Slater – <i>Quantitative Methods for Business Decisions</i> (2002).</p>	4
Week 3 - 5	<p>Topic 3: Tabulation and Presentation of Data</p> <ul style="list-style-type: none"> • Discrete and continuous data, Tabulation of data, Presentation of data. <p>By the end of this topic, students are expected to be able to:</p> <ul style="list-style-type: none"> • Define discrete and continuous data, and illustrate them with examples. • Represent data in various ways, such as frequency distribution table for grouped and ungrouped data, histogram, bar-chart and pie-chart. • Construct histograms. 	12

	<p>Further reading for this lesson: Kullandavelu, S.- <i>Business Statistics</i>, Stamford Collage Group (1996). Jon Curwin & Roger Slater – <i>Quantitative Methods for Business Decisions</i> (2002).</p>	
Week 6 - 9	<p>Topic 4: Measures of Central Tendency and Measures Of Dispersion</p> <ul style="list-style-type: none"> Measures of location, Measures of dispersion, Cumulative frequency curve/Ogive. <p>By the end of this topic, students are expected to be able to:</p> <ul style="list-style-type: none"> Measure mean, median and mode. Use examples of ungrouped and grouped data. Estimate mode graphically using histogram. Measure the dispersion: range, mean deviation, variance and standard deviation. Draw ogive, the cumulative frequency curve and obtain the estimated value of median (second quartile), first quartile (25%) and third quartile (75%) and percentiles. <p>Activity: Test 1</p> <p>Further reading for this lesson: Owen, F. & Jones R.- <i>Statistics</i>, (3rd edition), UK : Pitman Publishing 1990. Jon Curwin & Roger Slater – <i>Quantitative Methods for Business Decisions</i> (2002).</p>	16
Week 10 & 11	<p>Topic 5: Basic Probability</p> <ul style="list-style-type: none"> Definition and terminology of probability, The possibility space and the Venn diagram, Mutually exclusive events, Exhaustive events, Conditional probability, Bayes' Theorem, Independent events. <p>By the end of this topic, students are expected to be able to:</p> <ul style="list-style-type: none"> Define probability. Represent the possible outcomes of a sample space in possibility space diagram. Use Venn diagrams to solve some of the probability questions. Give examples to explain: <ol style="list-style-type: none"> Mutually exclusive events where $P(A \cup B) = P(A) + P(B)$ $\therefore P(A \cap B) = 0$ Exhaustive events $P(S) = P(A) + P(B) = 1$ Conditional probability, A given B: $P(A/B) = \frac{P(A \cap B)}{P(B)}$ Independent events $P(A \cap B) = P(A)P(B)$ 	8

	Further reading for this lesson: Friend, D. - <i>How to Pass Business Statistics</i> , Systematic Education Group Berhad (1997). Jon Curwin & Roger Slater – <i>Quantitative Methods for Business Decisions</i> (2002).	
Week 12 & 13	<p>Topic 6: Variables and Probability Distributions</p> <ul style="list-style-type: none"> • Random variables, Discrete random variables, Probability distribution, Expectation of any function of X, $E[g(X)]$, Variance of X, $Var(X)$, Variance of any function of x, $Var[g(x)]$. <p>By the end of this topic, students are expected to be able to:</p> <ul style="list-style-type: none"> - Define the meaning of scarce resources and the methods of linear programming. - Interpret the solutions. <p>Activity: Test 2</p> <p>Further reading for this lesson: Burton, G., Carrol, G., Wall, S. <i>Quantitative Methods for Business and Economics</i>, Addison Wesley Longman Singapore (1999). Jon Curwin & Roger Slater – <i>Quantitative Methods for Business Decisions</i> (2002).</p>	8
Week 14	<p>Revision</p> <p>By the end of this topic, students are expected to be able to: Ask questions and to have discussions.</p> <p>Activity: Exercise and Q & A</p>	4
Text	<p>Compulsory</p> <p>Kullandavelu, S. <i>Business Statistics</i>, Stamford College Group (1996). Friend, D. – <i>How to pass Business Statistics</i>, Systematic Education Group Berhad (1997).</p>	