

<b>Semester</b>	Semester Two		
<b>Course Code</b>	SOST 12315		
<b>Course Name</b>	Basic Statistics		
<b>Credit Value</b>	5		
<b>Core/Optional</b>	Compulsory		
<b>Hourly Breakdown</b>	Theory	Practical	Independent Learning
	75	-	175
<b>Intended Learning Outcomes:</b>			
At the completion of this course student will be able to			
<ul style="list-style-type: none"> <li>➤ Identify the scale and type of the data and basic concepts of the statistics</li> <li>➤ Define the process of a research and select appropriate data collection method in a given situation</li> <li>➤ Identify the method of organize and present the data</li> <li>➤ Recognize and interpret measures of central tendency, dispersion, skewness, and kurtosis</li> <li>➤ Describe indices theory and methods</li> </ul>			
<b>Course Content:</b>			
01.	Introduction	Meaning and Definition of Statistics, Importance and Scope of Statistics, Nature of Statistics problem and examples, Introduction to descriptive and inferential statistics	
02.	Population and Sample	Population and Census, Finite and infinite population, Sample and selecting a random sample, Difference between parameters and statistics.	
03.	Classification of Data	Purpose of classification of data, Advantages of classification of data, Types of classification: Primary	

		Data and Secondary Data, Internal and External Data, Qualitative and Quantitative Data, Continuous and Discrete Data and etc.
04.	Scales of Measurement	Nominal, Ordinal, Interval, Ratio
05.	Survey and Experiment	Deference between survey and experiment. Steps to be taken to conduct a research
06.	Data Collection Methods	Primary Data Collection Methods, Secondary Data Collection Methods, Advantages and disadvantages of each data collections methods, Define suitable data collection method in a given scenario, Distinguish the procedure of each data collection methods.
07.	Organization of Data	Concept of classification and tabulation, Construct the frequency distribution, Basic principles of tabulation.
08.	Presentation of Data	Use of different types of data presentation methods (bar charts, pie charts, line graphs and etc.)
09.	Frequency Distribution	Introduction, Cumulative and Relative frequency distribution, Grouped and Ungrouped frequency distribution, Graphical representation of frequency distribution : histogram, frequency polygon, Less than ogive or More Ogive, Lawrence Curve
10.	Measures of Central Tendency	Uses of Central Tendency Measures, Find and interpret the various measures of central tendency (Mean, Median, Mode), Merits and demerits of each type of measures
11.	Measures of Relative Location	Find and interpret the various measures of relative location (Quartiles, Deciles, Percentiles)
12.	Measures of Dispersion	Importance of measuring dispersion, Measures of dispersion (Range, Mean deviation, Quartile Range, Variance, Standard deviation), Distinguish absolute

		and relative measures of dispersion, Merits and demerits of each type of measures		
13.	Measures of Skewness and Kurtosis	Symmetric and asymmetric distributions, Skewness of distributions and interpret the nature of skewness, Kurtosis of distributions, Evaluate and interpret the types of kurtosis, Calculate Skewness and Kurtosis		
14.	Indices	Construct price, quantity, and value indices (Simple Relative Indices, Simple Aggregate Indices, Aggregate Indices, Laspeyre's Index, Paaschey's Index, Marshall Addedge Index, Fisher's Index), Practically use of indices		
<b>Teaching/ Learning Methods</b>		Interactive Lectures, Directed Self Studies, Cooperative Learning, LMS		
<b>Assessment Strategy:</b>				
Continuous Assignment 20%		Final Assignment 80%		
Assignments 15%	Attendance 5%	Theory 80%	Practical -	Other -
<b>Recommended Reading:</b>				
<ul style="list-style-type: none"> <li>➤ ජයතිස්ස, ඩබ්. ඒ. (1987). මූලික සංඛ්‍යාන විද්‍යාව 1 - විස්තරාත්මක සංඛ්‍යානය. කර්තෘ ප්‍රකාශන:නුගේගොඩ</li> <li>➤ Arora, P.N., Arora, S., Arora, S. &amp; Arora, A. (2007). <i>Comprehensive Statistical Methods</i>. S. Chand &amp; Company Ltd: India</li> <li>➤ Pillai, R.S.N. &amp; Bagavathi. (2018). <i>Statistics: Theory and Practice</i>. S. Chand &amp; Company Ltd, India</li> </ul>				