



**UNIVERSITI TEKNOLOGI MARA**

**EDU705: INTRODUCTION TO STATISTICS 1**

<b>Course Name (English)</b>	INTRODUCTION TO STATISTICS 1 <b>APPROVED</b>
<b>Course Code</b>	EDU705
<b>MQF Credit</b>	3
<b>Course Description</b>	The purpose of this course is to provide educators with basic knowledge of statistics and to assist them in acquiring skills and techniques for using, understanding and interpreting statistical procedures appropriate in a given situation. Major areas to be covered include Descriptive and Inferential Statistics and applications of SPSS as a tool in assisting data analysis and interpretation. Students will be given an opportunity to exercise their acquired skills through research projects agreed upon by the course instructor. The focus of the course will be on developing conceptual understanding of statistics and the application and interpretation of statistics in meaningful ways using examples from educational settings. Greater emphasis will be placed on interpretation and understanding of concepts rather than computation.
<b>Transferable Skills</b>	Resourceful and Responsible, Analytical skill
<b>Teaching Methodologies</b>	Lectures, Lab Work, Discussion
<b>CLO</b>	CLO1 Demonstrate basic statistical concepts and procedures CLO2 Apply appropriate statistical procedures in analyzing a body of data CLO3 Correlate research questions with appropriate choices of statistical analysis.
<b>Pre-Requisite Courses</b>	No course recommendations
<b>Topics</b>	
<b>1. Introduction to Statistics</b> 1.1) Discussion will be on elementary statistical concepts that provide the necessary foundations for more specialized expertise in any area of statistical data analysis. The selected topics illustrate the basic assumptions of most statistical methods and/ or have been demonstrated in research to be necessary components of one's general understanding of the 'quantitative nature' of reality. It includes what is statistics, role of statistics, development of statistics, variables, scales and measurement, descriptive and inferential statistics, population and sample.	
<b>2. Descriptive Statistics</b> 2.1) Define the term of descriptive statistics; differentiate between descriptive and inferential statistics in terms of purpose. Graphical and numerical descriptive methods, concept of central tendency, variation and its characteristics ; type of research questions and its appropriateness using descriptive analyses. 2.2) Introduction to Basic Data Analysis Using SPSS: Descriptive statistics	
<b>3. Inferential Statistics</b> 3.1) Purpose of inferential statistics ; differentiate sampling error from measurement error ; null hypothesis and describe its role in inferential statistics ; level of significance and describe its use in inferential statistics ; Type I and Type II errors, the meaning of the term statistically significant. Among the analysis of tests and measures to be discussed are T-test, Analysis of variance (ANOVA) Regression, correlation and Chi-Square ; type of research questions and its appropriateness using inferential analyses. 3.2) Introduction to Basic Data Analysis Using SPSS: Inferential statistics	

Assessment Breakdown		%		
Continuous Assessment		100.00%		
Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Final Test	Test	40%	CLO1
	Group Project	Project Report	40%	CLO3
	Practical	Practical: using SPSS	20%	CLO2
Reading List	Reference Book Resources	<ul style="list-style-type: none"> <li>• Parmjit, S 2015, <i>Data Analysis for Novice Researchers</i>, Primera Publication, Kuala Lumpur</li> <li>• Bain, L.J &amp; Englehardt, M. 1992, <i>to Probability and Mathematical Statistics</i>, Ed., , Duxbury Press [ISBN: ]</li> <li>• H. Halilah, I. Mohd. Said &amp; Y. Fatimah 2002, <i>Business Statistics</i>, Ed., , Shah Alam : UiTM Document Services Sdn. Bhd. [ISBN: ]</li> <li>• Kirk, R.E. 1990, <i>Statistics : An Introduction</i>, 3 Ed., , , Holt, reinhart and Winston, Inc [ISBN: ]</li> <li>• Mendenhall, W. &amp; Sincich, T. 1995, <i>Statistics for Engineering and the Sciences</i>, 4 Ed., , , New Jersey : Prentice Hall, Inc.</li> </ul>		
Article/Paper List	This Course does not have any article/paper resources			
Other References	This Course does not have any other resources			