

COURSE INFORMATION

School /Faculty:	Kolej SPACE	Page:	1 of 4
Program name	Diploma in Railway Transport Management		
Course code:	DIB 2313	Academic Session/Semester:	2020/21/2
Course name:	Statistics For Business	Pre/co requisite (course name and code, if applicable):	NA
Credit hours:	3		

Course synopsis	This course is design to expose the student the basic knowledge of statistics in the field of business. Besides that, it provides a rich depth of practical examples and application approach by using statistical techniques. This course will also emphasize topics on introduction and data collection, presenting data in tables and charts, numerical descriptive measures, basic probability, normal distribution, sampling distributions, fundamental of hypothesis testing : one-sample tests; two-samples tests with numerical data, analysis of variance, tests for two or more samples with categorical data, simple regression and correlation and index numbers.			
Course coordinator (if applicable)	Siti Syaheera bt Aminudin			
Course lecturer(s)	Name	Office	Contact no.	E-mail
	Siti Syaheera bt Aminudin		014-2393239	syaheera@kolejspace.edu.my

Mapping of the Course Learning Outcomes (CLO) to the Programme Learning Outcomes (PLO), Teaching & Learning (T&L) methods and Assessment methods:

No.	CLO	PLO (CODE)	*Taxonomies and **generic skills	T&L methods	***Assessment methods
CLO1	Explain the data collection methods and categorization of data.	PLO1	C3	Lecture, Discussion	T, Asg, F
CLO2	Identify the mean, median, mode and variance for a set of data.	PLO3	P2	Lecture, Discussion	T, Asg, F
CLO3	Determine the types of processes that are presented by discrete probability distributions.	PLO2	C3	Lecture, Discussion	T, Asg, F
CLO4	State the important properties of normal distribution, the use of test statistics, critical value and p-value approach to test the null hypothesis.	PLO2 PLO7	C3	Project	T, Asg, F PR, Pr

Prepared by: Name: Siti Syaheera bt Aminudin Signature: Date: 23/11/2020	Certified by: Name: Signature: Date:
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Refer *Taxonomies of Learning and **Kolej SPACE's Graduate Attributes, where applicable for measurement of outcomes achievement

***T – Test; Q – Quiz; HW – Homework; PR – Project; Pr – Presentation; Asg – Assignment; F – Final Exam etc.

Details on Innovative T&L practices:

No.	Type	Implementation
1.	Active Learning	Conducted through in class activities, presentation and problem based learning.
2.	Project	Conducted through mini project. Students in a group is given a problem to test the result and perform in the form of written report. Then present a report in a class.

Weekly Schedule:

Week 1	Topic 1 : Introduction and Data Collection 1.1 Types of data 1.2 Fundamentals elements of a statistical analysis
Week 2	1.3 Types of sampling methods 1.4 Collecting data, why data is needed, source of data
Week 3	Topic 2 : Presenting Data in Tables and Charts 2.1 Organizing numerical data 2.2 Tables and charts for numerical data 2.3 Graphing bivarite numerical data
Week 4	2.4 Tables and charts for categorical data 2.5 Tabulating and graphing bivarite categorical data
Week 5	Topic 3 : Numerical Descriptive Measures 3.1 Measures of central tendency, variation and shape 3.2 Exploratory data analysis 3.3 Obtaining descriptive summary measures from a population 3.4 The coefficient of variation
Week 6	Topic 4 :Basic Probability 4.1 Basic probability 4.2 Concepts of conditional probability 4.3 Bayes' Theorem
Week 7	Topic 5 : The Normal Distribution and Other Continuous Distributions 5.1 The normal distribution 5.2 The normal approximation to the Binomial Distribution
Week 8	Semester Break
Week 9	Topic 6 : Sampling Distributions 6.1 The unbiased property of the sample mean 6.2 Standard error of the mean 6.3 Sampling from normally and non normally distributed populations 6.4 Sampling distribution of the proportion
Week 10	Topic 7 : Fundamentals of Hypothesis Testing : One-sample Tests 7.1 Hypothesis testing methodology 7.2 Z test of the hypothesis for the mean and proportion 7.3 T test of hypothesis
Week 11	Topic 8 : Two-sample Hypothesis Tests 8.1 Comparing two independent samples

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	8.2 Comparing two related samples
Week 12	Topic 9 : Analysis of Variance (ANOVA) and Chi-square Tests 9.1 One-way analysis 9.2 Chi-square test for the differences in more than two proportions
Week 13	Topic 10 : Index Numbers 10.1 Explain the concept of index numbers 10.2 Compute the price index 10.3 Compute the aggregate price indexes and weighted aggregate price indexes
Week 14	Topic 11 : Simple Regression 11.1 Describe the types of regression model 11.2 Compute the simple linear regression
Week 15	Presentation
Week 16	Study Leave

Transferable skills (generic skills learned in course of study which can be useful and utilised in other settings):

Communication Skills, Numeracy Skills

Student learning time (SLT) details:

Distribution of student Learning Time (SLT) by CLO	Teaching and learning Activities						SLT
	Guided Learning (Face to Face) L: Lecture, T: Tutorial, P: Practical, O: Others				Guided Learning Non Face to Face	Independent Learning Non Face to face	
CLO	L	T	P	O			
CLO 1	4h	2h				2h	8h
CLO 2	2h	1h				1h	4h
CLO 3	6h	3h				3h	12h
CLO 4	16h	8h				7h	31h
Total SLT	28h	14h				13h	55h
No.	Continuous Assessment				PLO (Code)	Percentage	Total SLT
1	Test 1				PLO1,PLO3	10%	1.5h
2	Test 2				PLO2	10%	1.5h
3	Assignment 1				PLO1	5%	10h
4	Assignment 2				PLO3	5%	10h
5	Assignment 3				PLO2	5%	10h
6	Assignment 4				PLO2	5%	10h
7	Assignment 5				PLO2	5%	10h
8	Project Report				PLO7	10%	9h
9	Presentation				PLO7	5%	0.5h
Final Assessment						Percentage	Total SLT
1	Final Examination				PLO1,PLO2,PLO3	40%	2.5h
Total SLT					100		120h

h: hours, m: minutes

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Special requirement to deliver the course (e.g: software, nursery, computer lab, simulation room):

None

Learning resources:

Text book (if applicable)

None

Main references

1. David R. Anderson, Dennis J. Sweeney, Thomas A. Williams, Jeffrey D. Camm, James J. Cochran, (2017). Essentials of Modern Business Statistics with Microsoft Office Excel. Boston: Cengage Learning.
2. Thomas J. Quirk, (2016). Excel 2016 for Business Statistics: A Guide to Solving Practical Problems. Switzerland: Springer.

Additional references

None

Online

e-book

Academic honesty and plagiarism:

Copying of work (texts, simulation results etc.) from other students/groups or from other sources is not allowed. Brief quotations are allowed and then only if indicated as such. Existing texts should be reformulated with your own words used to explain what you have read. It is not acceptable to retype existing texts and just acknowledge the source as a reference. Be warned: students who submit copied work will obtain a mark of **zero** for the assignment and disciplinary steps may be taken by the Faculty. It is also unacceptable to do somebody else's work, to lend your work to them or to make your work available to them to copy.

Other additional information (Course policy, any specific instruction etc.):

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