1.	Name of Course/Module/Subject	DPS5018
2.	Course /Subject Code	Introduction to Probability and Statistics
3.	Status of Subject	Major Subject
4.	MQF Level/Stage	MQF Level 4
5.	Version (state the date of the last Senate approval)	Senate 162 May 2013
6.	Pre-Requisite/Requirement for Registration	None
7.	Name(s) of academic/teaching staff	Ikha Fadzila Md Idris, Tan Sin Yin, Nurainiah Abu Hassan, Suraya Md Suyod, Mar Syazana Maslin
8.	Semester and Year offered	Trimester 2, Year 1
9.	Objective of the course/module/subject in the programme :	
	To provide students with sound understanding of the probability and statistics concepts.	
10.	Justification for including the subject in the program : This subject will expose students to basic concepts of probability and statistics. Students will be able to understanding the fundamental concepts of statistics which might help them in decision making.	

11. Subject Learning Outcomes :

	Domain	Level
LO 1: Define the concept of probability and statistics, also population and sampling distribution.	Cognitive	3
LO 2: Describe distribution using graphs and numerical descriptors.	Cognitive	2
LO 3: Demonstrate an understanding of basic principles of probability, conditional probability, Bayes Rule, Binomial, Poisson, and Normal distribution.	Cognitive	5
LO 4: Carry out a regression analysis and perform hypothesis test about a population mean with large sample using the p-value approach.	Cognitive	3

12. Mapping of Learning Outcomes to Programme Outcomes :

Learning Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
LO1	√		√		√			
LO2	√	√	√		√			
LO3	√	√	√		√			
LO4	√	√	√					

13. Assessment Methods and Types :

Method and Type	Description/Details	Percentage
Tutorials	4	5%
Assignments	3	15%
Quizzes	2	10%
Midterm Tests	2	20%
Final Exam	1	50%

14. Details of Subject

Topics	Mode of Delivery		
Lecture/Tutorial	Lecture Hour	Tutorial Hour	SLT
Topic 1: Introduction to Statistics What is statistics; Types of statistics; Population vs. Sample; Basic Terms; Simple Random Sampling; Other Sampling Designs; Experimental Designs	2	1	3
Topic 2: Organizing Data Variables and Data; Grouping Data; Graphs and Charts; Distributions Shapes	2	1	3

	Topic 3: Numerical Descriptive Measures Measures of Central Tendency; Measures of Variation; Five-Number Summary; Boxplots	4	2	6
	Topic 4: Probability and Random Variables Probability Basics; Sample Space; Events; Sets; Properties of Probability; Tree Diagram; Venn Diagram; Conditional Probability and Bayes Theorem	3	1	4
	Topic 5: Discrete Probability Distribution Binomial Distribution and Poisson Distribution; Application of the Binomial and Poisson Distribution	3	1	4
	Topic 6: Continuous Distribution (Normal Distribution) The Standard Normal Distribution; The Normal Distribution; Application of the Normal Distribution	2	1	3
15.	**Topic 7: Hypothesis Testing** Introduction of Hypothesis Tests about a Population Mean; Hypothesis Tests using the p-value Approach; Inferences for Two Population Means; Inferences for Population Proportions	8	4	12
16.	**Topic 8: Simple Linear Regression Analysis** Simple Linear Regression Model; Simple Linear Regression Analysis; Linear correlation	2	1	3

17.	Total Student Learning Time (SLT)	Face to Face	Total Guided and Independent Learning
	Lecture	26	26
	Tutorials	12	12
	Quizzes	2	2
	Assignment	-	12
	Midterm Tests	3	6
	Final Exam	2	20
	Sub Total	45	78
	Total SLT	123	
18.	Credit Value	3.075 ≈ 3	
19.	Reading Materials :		
	Textbook	Reference Materials	
	1. Aminah A., Yuzi M., Siti N.H.H., Loh Y.F., Siti M.N., and Afizan A***., Introduction to Statistics***, 1st edition, Prentice Hall, 2010. 2. New Cambridge Statistical tables by D.V Lindley & W.F Scot.	1. Neil A. Weiss, ***Introductory Statistics***, 9th edition, Pearson, 2012 2. Richard A.Johnson, ***Probability and Statistics for Engineers***, 6th Edition, Prentice Hall 3. Karl E. Case & Ray C. Fair (2007), ***Principles of Economics***, Pearson International Edition.	