Sixteen Week Plan
Faculty of Computing & Information Technology
Department of Computer Science
Hafiz Hayat Campus, University of Gujrat

	Title	Probability and Statistics
	Code	STST-205
	Credit hours	3 Credit Hours
	Course Coordinator	Hifza Zulfiqar
	Course Description	Introduction of Statistics with real life examples, Organization of the Data; Frequency Distribution for Discrete and Continuous Data, Presentation of the Data; Chartsand Graph for Discrete &Continuous Data respectively,Representation of Data; Measure of Central Tendencies, Measure of Dispersion; Standard Deviation& its Relative Measure, Measure of Shape; Skewness and Kurtosis.Basic Probability Theory, Random Variable, Introduction of Probability distributions, Discrete Probability Distribution: Binomial, Hyper Geometric and Poisson Distribution. Continuous Probability Distribution: Normal Distribution. Regression and Correlation Analysis.
	Objectives	Main objective of this course is that the Student will be able 1. To understand the basic concepts of statistics 2. To use the statistics in their field of study at basic level 3. To understand the basic concepts of Probability & Statistics

	Grading Policy	The course will be evaluated on the basis of the following percentage:
		Mid Term 25%
		• Sessional work 25%
		    • Presentation/Practical 10%
		    • Assignment/Practical 10%
		    • Quizzes 05%
		Final term 50%

	Grading System	

Class Attendance	**A minimum of 70% attendance is required for a student to be eligible to take the final examination.** The students with less than 70% of the attendance in a course shall be given the grade SA (Short Attendance) in such a course and shall not be allowed to take its End Term Exams and will have to reappear in the course to get the required attendance to be eligible to sit in the exam when the course is offered the next time.	
Text Book	1. Walpole, R.E. (1997) Introduction to Statistics, Prentice Hall International 2. McClane, J. T. (2000). A first course in statistics (7th ed.). New York: Prentice-Hall Moore, D. S., & McCabe, G. P. (1998). Introduction other practice of statistics. (3rd ed.). New York: Longmans.	
Reference Books	1. Johanson, J.L. (2003). Probability and Statistics for Computer Science. John Wiley & Sons. 2. Stockburger, D.(2001)Introductory Statistics: Concepts, Methods and Application,Atomic Dog Pub	
Pre-requisites:	Basic knowledge of mathematics	
Plagiarism Policy:		
Quiz/Assignments Policy	• Four Assignments will be taken according to given Schedule • Four Quizzes will be taken according to given schedule	

Week#	Lecture #	TOPICS	Source (Book-Chapter No)	Recommendations for Learning Activities
01	<u>**1&2**</u>	Introduction of Statistics, Importance of Statistics. Important Statistical Terms, Variable & Data & data collection	Chapter No 1 from text Book	Book Reading
02	**3&4**	Organization of Data: Frequency distribution, its construction and other related concepts. **Assignment 1**	**Chapter No 1 from text Book**	Book Reading and Practice Exercise
03	**5&6**	Presentation of Data: Charts for Discrete Data; Simple Bar Chart, Component Multiple Bar chart, Simple Pie Chart.	Chapter No 2 from text Book	Practice Exercise
04	**7&8**	Graphs for Continuous Data; Histogram, Frequency Polygon and Ogive. **Quiz 1**	Chapter No 2 from text Book	Practice Exercise
05	**9&10**	Measures of Central Tendencies; Mean, Median & Mode for Ungrouped Data.	Chapter No 3 from text Book	Practice Exercise

06	11&12	Mean, Median & Mode for Grouped Data Quantiles; Quartiles, deciles and percentiles for Ungrouped Data, **Assignment 2**	Chapter No 3 from text Book	Practice Exercise
07	13&14	Quantiles for Grouped Data. **Quiz 2**	Chapter No 3 from text Book	Practice Exercise
08	15&16	Measure of Dispersion; Absolute & Relative Measure of Dispersion for ungrouped & grouped Data.	Chapter No 4 from text Book	Practice Exercise
Mid Term Exam				
09	17&18	Moments about Mean, Coefficient of Skewness and Kurtosis using Pearson's, Bowley's and Moments-ratios bases Formulae.	Chapter No 4 from text Book	Practice Exercise
10	19&20	Introduction of Probability Theory, Types of Events, Functions of Classical Probability with real world problems,	Chapter No 6 from text Book	Practice Exercise
11	21&22	Exercise based on Probability.	Chapter No 6 from text Book	Practice Exercise
12	23&24	Binomial probability distribution & numerical examples related to it.	Chapter No 8 from text Book	Practice Exercise
13	25&26	Hyper Geometric Probability Distribution & numerical examples related to it.	Chapter No 8 from text Book	Practice Exercise
14	27&28	Poisson Probability Distribution & numerical examples related to it.	Chapter No 8 from text Book	Practice Exercise
15	29&30	Continuous Probability distribution; Normal distribution	Chapter No 9 from text Book	Practice Exercise
16	31&32	**Presentations of students & Discussion on Syllubus.**		
Final Term Exam				