



## **Course Outlines**

### **Course Details:**

Course Code : STA 235                      Credit hours: 3.0  
 Course Title : Statistics  
 Program : CSE / CSIT  
 Semester : Fall- 2016  
 Course Teacher :Anamika Dey  
    Lecturer, Dept. of CSE

### **Course Assessment:**

The assessment components for evaluation of students are as follows:

<b>Item/Activity</b>	<b>Marks (%)</b>
Work Sheet (including class attendance and class tests)	25%
Assignment/ Presentation (2)	10%
Mid-Term Test	25%
Final Examination	40%
<b>Total</b>	<b>100%</b>

### **Course Contents:**

<b>Lectures</b>	<b>Contents (Each lecture will be 1.5 hours duration)</b>
Lecture-1	Introduction to Statistics, Exploring Data with Graphs
Lecture-2	Measures of Center and Spread; Exploring the Relationship Between Two Variables
Lecture -3	Frequency Distribution, Histogram, Bar graph
Lecture -4	Mean, Median, Mode
Lecture -5	Probability Rules, Compound Events
	<b>Assignment/Presentation</b>
Lecture -6	Normal Distribution
Lecture -7	Kurtosis, Curve and Related topics
Lecture -8	Arithmetic Mean, Geometric Mean, Harmonic Mean
Lecture -9	Standard Deviation, Variance
	<b>Class Test</b>
Lecture -10	Probability Density Function and its implementation
Lecture -11	Probability Density Function and its implementation
Lecture -12	Mathematical examples of A.M, G.M, H.M, SD,PDF
	<b>Class Test</b>

	<b>Mid-Term</b>
Lecture -13	Dispersion/ Deviation
Lecture -14	Moments, Skewness and Kurtosis
Lecture -15	Sample Space and Related math
Lecture -16	Estimating $\mu$
	<b>Assignment/Presentation</b>
Lecture -17	Learning about Probability Distributions; Review
Lecture -18	Sampling Distribution
	<b>Class Test</b>
Lecture -19	Tests Involving Paired Differences
Lecture -20	Testing a Single Variance or Standard Deviation
Lecture -21	Sampling Distribution of the Sample Mean; More about Sampling Distributions
Lecture -22	Hypothesis Testing Using A Single Sample
Lecture -23	In Depth Application
	<b>Class Test</b>
Lecture -24	Overview
	<b>Final Examination</b>

<b>Textbooks:</b>	<ol style="list-style-type: none"> <li>1. 'Probability &amp; Statistics for Engineers &amp; Scientists' by Walpole, Myers, Ye.</li> <li>2. 'Theory and Problems of Statistics' by Murray R. Spiegel, Larry J. Stephens.</li> </ol>
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