

**Curriculum Plan: B. Sc. (H) I (Semester I) Probability and statistics**

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Marks Distribution	Theory 2L per week	90 Marks
	Internal Assessment	Total 30 Marks
		Assignments 12 Marks
		Home Ex 12 Marks
		Attendance 6 Marks
	Continuous Assessment	40 Marks

Reference	[1]	Devore, Jay L. (2016). Probability and Statistics for Engineering and the Sciences (9th ed.). Cengage Learning India Private Limited. Delhi. Indian Reprint 2020.
	[2]	
	[3]	

Section	Week	Topics
	1 <sup>st</sup> week Aug, 29 <sup>th</sup> – Sep 5 <sup>th</sup> , 2024	
	1 <sup>st</sup> week Aug, 29 <sup>th</sup> – Sep 5 <sup>th</sup> , 2024	Continuous random variables, Probability density functions, Uniform distribution,
	2 <sup>nd</sup> week Sep, 6 <sup>th</sup> – 13 <sup>th</sup> , 2024	Continuous random variables, Probability density functions, Uniform distribution,
	3 <sup>rd</sup> week Sep, 14 <sup>th</sup> – 21 <sup>th</sup> , 2024	Continuous random variables, Probability density functions, Uniform distribution,
	4 <sup>th</sup> week Sep, 23 <sup>th</sup> – 30 <sup>th</sup> , 2024	
	5 <sup>th</sup> week Oct, 1 <sup>st</sup> - 8 <sup>th</sup> , 2024	Cumulative distribution functions and expected values,
	6 <sup>th</sup> week, Oct, 9 <sup>th</sup> - 16 <sup>th</sup> , 2024	Bounded above and bounded below sets, Suprema and infima, The completeness axiom and the Archimedean property of $\mathbb{R}$
	7 <sup>th</sup> week Oct, 17 <sup>th</sup> – 25 <sup>th</sup> , 2024	The normal, exponential and lognormal distributions.
	8 <sup>th</sup> week Nov, 4 <sup>th</sup> - Nov 11 <sup>th</sup> , 2024	The normal, exponential and lognormal distributions.
	9 <sup>th</sup> week Nov, 12 <sup>th</sup> - 19 <sup>th</sup> , 2024	Sampling distribution and standard error of the sample mean,
	10 <sup>th</sup> week Nov, 20 <sup>th</sup> - 27 <sup>th</sup> , 2024	Central Limit Theorem and applications;
	11 <sup>th</sup> week Nov, 28 <sup>th</sup> - Dec, 5 <sup>th</sup> , 2024	Scatterplot of bivariate data, Regression line using principle of least squares,
	12 <sup>th</sup> week Dec, 6 <sup>th</sup> – 13 <sup>th</sup> , 2024	Scatterplot of bivariate data, Regression line using principle of least squares,
	13 <sup>th</sup> week Dec, 14 <sup>th</sup> - 21 <sup>th</sup> , 2024	Estimation using the regression lines; Sample correlation coefficient and properties.
	14 <sup>th</sup> week Dec, 23 <sup>th</sup> - 28 <sup>th</sup> , 2024	Estimation using the regression lines; Sample correlation coefficient and properties.