

**Curriculum Delivery for 2nd Semester
Four-Year Undergraduate Program (FYUP)**

Mathematics

Session: 2025-2026

B.Sc. Statistics (Minor Course)

SEMESTER-II

Course Code: ST-MI-T-2

Course title: Basic Probability and Probability Distributions

Session- 2025- 2026

<u>Semester – II</u>			
Name of the teacher	Unit	Subject	Classes
Md. Meezanur Rahaman	2	Conditional probability, Laws of addition multiplication, independent events, theorem of total probabilities, Baye's theorem and its application.	7
Dr. Sarifuddin	1	Probability: Introduction, random experiments, sample space, events and algebra of events. Definitions of probability- classical, statistical, and axiomatic. Related problems.	7
Babulal Tudu	3	Random variables (RV): Discrete and continuous RV, p.m.f., p.d.f., c.d.f., statement and properties, illustration of RV. Mathematical Expectation, Probability generating function. Moments, Moment generating function. Probability inequalities: Markov & Chebyshev.	7
Bilkish Khatun	5	Two-dimensional RV: discrete type, joint, marginal and conditional p.m.f. and c.d.f., statement of properties of c.d.f., independence of variables, correlation of coefficient and variance. Trinomial distribution.	8
Gaurab Mitra	4	4. Standard probability distribution: Binomial, Poisson, Geometric, Negative binomial, Hypergeometric, Uniform, Normal, Beta and Gamma.	7