

B.Tech. Computer Science and Engineering (CSE)

KURUKSHETRA UNIVERSITY, KURUKSHETRA MODIFIED SCHEME OF EXAMS W.E.F THE SESSION 2026-2027 SEMESTER-III

S. No.	Course No./ Code	Subject	L:T:P	Hours/ Week	Credits	Examination Schedule(Marks)				Duration of exam (Hours)
						End Semester Exam	Internal assessment	Practical Exam	Total	
1	B23-CSE-201	Data Structures and Algorithms	4:0:0	4	4	70	30	0	100	3
2	B23-CSE-203	Computer Organization & Architecture	3:0:0	3	3	70	30	0	100	3
3	B23-CSE-205	Object Oriented Programming	4:0:0	4	4	70	30	0	100	3
4	B23-CSE-207	IT Workshop (Python)	3:0:0	3	3	70	30	0	100	3
5	B23-BSC-207	Probability and Statistics	3:0:0	3	3	70	30	0	100	3
6	B23-HSM-201	Organizational Behaviour	3:0:0	3	3	70	30	0	100	3
7	B23-CSE-209	Data Structures and Algorithms Lab	0:0:3	3	1.5	0	40	60	100	3
8	B23-CSE-211	Object Oriented Programming Lab	0:0:3	3	1.5	0	40	60	100	3
9	B23-CSE-213	IT Workshop (Python) Lab	0:0:2	2	1	0	40	60	100	3
10	B23-MAC-202	Essence of Indian Traditional Knowledge	2:0:0	2	1	--	100	--	100	3
TOTAL				30	25	420	400	180	1000	

Note: NCC/NSS/Sports/Yoga/Technical/cultural club/society activities may also be joined by students in second year and will be evaluated in 7 th semester by the institute based upon continuous evaluation model as per guidelines.

B23-BSC-207		PROBABILITY AND STATISTICS					
L	T	P	Credit	End Semester Exam	Internal assessment	Total	Time
3	0	-	3	70	30	100	3 Hrs.
Purpose	To familiarize the prospective students with the fundamentals of probability & statistics and how to apply the principles to model and analyze various phenomena in fields like finance, economics, and engineering, aiding in making informed decisions and predicting outcomes.						
Course Outcomes							
CO1	To introduce the fundamental concepts of probability to analyze and predict outcomes in real-life situations.						
CO 2	Probability theory provides models of probability distributions (theoretical models of the observable reality involving chance effects) to be tested by statistical methods which has various engineering applications.						
CO 3	To make the students familiar about basic statistics to analyze data sets using various measures of central tendency and dispersion						
CO 4	Upon completion of Unit IV, students will proficiently apply correlation and regression techniques, including calculating coefficients and determining lines of regression, to analyze relationships between variables in datasets.						

UNIT-I (10 Hrs)

Basic Probability: Introduction, additive law of probability, Conditional Probability, Independent Events, Bayes' Theorem.

Random Variables: Discrete random variables, probability distribution, Probability mass function and distribution function, Expectation, Moments, Variance and standard deviation of discrete random variables.

UNIT-II (12hrs)

Continuous Probability distribution:

Continuous random variables, probability distribution, Probability density function and distribution function, Expectation, Moments, Variance and standard deviation of Continuous random variables.

Probability distributions: Binomial, Poisson and Normal - evaluation of statistical parameters for these three distributions.

UNIT-III (10hrs)

Basic Statistics:

Measures of Central tendency: Mean, median, quartiles, mode, Geometric mean, Harmonic mean, Measures of dispersion: Range, Quartile deviation, mean deviation, standard deviation, coefficient of variation, Moments, Skewness and Kurtosis.

UNIT-IV (08hrs)

Correlation & Regression:

Introduction, Correlation, Coefficient of correlation, methods of calculations, Lines of regression, Rank correlation.

Suggested Books:

1. Erwin Kreyszig, Advanced Engineering Mathematics, 9th Edition, John Wiley & Sons, 2006.
2. P. G. Hoel, S. C. Port and C. J. Stone, Introduction to Probability Theory, Universal Book Stall, 2003 (Reprint).
3. S. Ross, A First Course in Probability, 6th Ed., Pearson Education India, 2002.
4. W. Feller, An Introduction to Probability Theory and its Applications, Vol. 1, 3rd Ed., Wiley, 1968.
5. N.P. Bali and Manish Goyal, A text book of Engineering Mathematics, Laxmi Publications, Reprint, 2010.
6. Ramana B.V., Higher Engineering Mathematics, Tata McGraw Hill New Delhi, 11th Reprint, 2010.
7. B.S. Grewal, Higher Engineering Mathematics, Khanna Publishers, 36th Edition, 2010.
8. Veerarajan T., Engineering Mathematics (for semester III), Tata McGraw-Hill, New Delhi, 2010.

Note: The paper setter will set the paper as per the question paper templates provided.