Program	BACHELOR OF VOCATION (B.Voc.)	Semester - 1
Type of Course	-	
Prerequisite		
Rationale	-	
Effective From A.Y.	2025-26	

Teaching Scheme (Contact Hours)				Examination Scheme				
Lecture	Tutorial	Lab	Credit	Theory Marks		Practical Marks		Total Marks
				SEE T	IAT	SEE P	CCE	
3	1	-	4	50	-	-	20	70

SEE - Semester End Examination, *IAT* - Internal Assessment Test, *CCE* - Continues & Comprehensive Evaluation

Course Content

T - Teaching Hours | **W** - Weightage

Sr.	Topics	T	W
1	**STATISTICS**	9	20
	Measure of central tendency: Mean, Median, Mode, Mean Deviation Standard Deviation, skewness, Linear Correlation, correlation coefficient, rank correlation coefficient, Regression.		
2	**DETERMINANT AND MATRICES**	10	25
	Basics of determinants, Matrices of order m×n, Matrices operation – Addition, Subtraction, Multiplication, Transpose, Elementary operations, Inverse.		
3	**VECTOR**	10	25
	Vector, Addition, Subtraction, Magnitude and direction, Scalar and Vector Product and its properties, Angle between two Vectors, Applications of Scalar and Vector Product (Work Done and Moment of Force).		
4	**DIFFERENTIATION & INTEGRATION**	8	15
	Basic Differentiation Formulae, u v Rule, u/v Rule, Chain Rule Basic Integration Formulae, Properties of Definite Integrals		
5	**FIRST ORDER ODE**	8	15
	Order and Degree, Formation of a differential equations, Method of solving First order ordinary differential equations: Separable variable, linear differential equations		
	Total	45	100

Course Outcomes

At the end of this course, students will be able to:

CO1	Apply the concept and methods of central tendency, correlation, correlation coefficient and regression in engineering.
CO2	Perform Determinant and matrix computations in a comprehensive manner.
CO3	Solve engineering related problems based on concepts of vectors.
CO4	Find differentiation & integration of basic functions.
CO5	Form and solve first order ordinary differential equations