PROGRAMME OUTCOMES (POs)

Students after successful completion of the program will be able:

PO1: To produce graduates who excel in the competencies and values required for leadership to serve a rapidly evolving global community.

PO2: To motivate the students to pursue PG courses in reputed institutes.

PO3: To learn the fundamental principles and scientific theorems related to basic sciences and their relevance in daily life

PO4: To kindle the interest for research in students.

PO5: To acquire placement in educational institutions, engineering and Industrial firms.

PO6: To endow the students with creative and analytical skills; this will equip them to become Entrepreneurs.

PROGRAMME SPECIFIC OUTCOMES (PSOs)

At the end of the Programme the student will be able to

PSO1: Interpret the principles, classifications, concepts, theories and mechanisms.

PSO2: Analyze hypothesis, procedures, properties, experimental facts and draw conclusions.

PSO3: Apply techniques in solving problems, results, sample analysis and production.

PSO4: Discuss the latest trends and applications pertinent to higher studies and employability.

PSO5: Exhibit communicative competence and apply skills in computers, creative and critical thinking, interpersonal relationships and managing emotions in real life situations.

DIFFERENTIAL EQUATIONS

Course Outcomes:

Upon successful completion of this course, students should be able to:

CO 1. Solve linear differential equations

CO 2. Convert non exact homogeneous equations to exact differential equations by using integrating factors.

CO 3. Know the methods of finding solutions of differential equations of the first order but not of the first degree.

CO 4. Solve higher-order linear differential equations, both homogeneous and non homogeneous, with constant coefficients.

CO 5. Understand the concept and apply appropriate methods for solving differential equations.

Course Outcomes with Program Outcomes and Program Specific Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO 1	-	3	3	-	-	-	3	-	3	-	3
CO 2	-	3	3	-	-	-	3	3	3	-	3
CO 3	-	2	-	-	-	-	3	3	3	-	3
CO 4	-	3	-	-	-	-	3	3	3	-	3
CO 5	3	3	3	4	-	-	3	3	3	4	3
Avg.	3	2.8	3	4	-	-	3	3	3	4	3

1 – POOR, 2 – AVERAGE, 3 – GOOD, 4 – EXCELLENT

THREE DIMENSIONAL ANALYTICAL SOLID GEOMETRY

Course Outcomes:

Upon successful completion of this course, students should be able to:

CO 1. Distinguish the geometry of planes, lines, spheres, cones and cylinders and describe their properties.

CO 2. Explain properties and concepts in 3D solid geometry and use them in real life situations

CO 3. Solve problems on planes, lines, spheres, cones, cylinders and coincides by the acquired knowledge

CO 4. Apply vector methods to solve certain problems on planes and lines

CO 5. Analyze methods of solving problems on planes, lines and spheres and apply related method to solve them

Course Outcomes with Program Outcomes and Program Specific Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO 1	**3**	**-**	**3**	**-**	**-**	**2**	**3**	**3**	**3**	**2**	**2**
CO 2	**-**	**-**	**3**	**3**	**-**	**3**	**3**	**3**	**-**	**-**	**-**
CO 3	**3**	**-**	**2**	**-**	**-**	**-**	**3**	**3**	**4**	**2**	**-**
CO 4	**3**	**-**	**2**	**-**	**-**	**-**	**3**	**3**	**4**	**2**	**-**
CO 5	**3**	**-**	**2**	**-**	**-**	**-**	**3**	**3**	**4**	**2**	**-**
Avg.	**3**	**-**	**2.4**	**3**	**-**	**2.5**	**3**	**3**	**3.7**	**2**	**2**

1 – POOR, 2 – AVERAGE, 3 – GOOD, 4 – EXCELLENT

ABSTRACT ALGEBRA

Course Outcomes:

Upon successful completion of this course, students should be able to:

CO 1. Acquire the basic knowledge and structure of groups, subgroups and cyclic groups.

CO 2. Get the significance of the notation of normal subgroups.

CO 3. Get the behavior of permutations and operations on them.

CO 4. Study the homomorphisms and isomorphisms with applications.

CO 5. Understand the ring theory concepts with the help of knowledge in group theory and to prove the theorems.

CO 6. Understand the applications of ring theory in various fields.

Course Outcomes with Program Outcomes and Program Specific Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO 1	-	3	3	4	-	-	3	4	3	-	-
CO 2	-	-	3	2	-	-	3	3	3	-	-
CO 3	-	3	3	3	-	-	3	3	3	-	-
CO 4	-	-	3	3	-	-	3	4	3	-	-
CO 5	-	-	3	2	-	-	3	-	3	-	-
CO 6	3	3	3	3	-	2	3	-	-	3	-
Avg.	3	3	3	2.8	-	2	3	3.5	3	3	-

1 – POOR, 2 – AVERAGE, 3 – GOOD, 4 – EXCELLENT

REAL ANALYSIS

Course Outcomes:

Upon successful completion of this course, students should be able to:

CO 1. Get clear idea about the real numbers and real valued functions.

CO 2. Obtain the skills of analyzing the concepts and applying appropriate methods for testing convergence of a sequence/ series.

CO 3. Test the continuity and differentiability and Riemann integration of a function.

CO 4. Know the geometrical interpretation of mean value theorems.

Course Outcomes with Program Outcomes and Program Specific Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO 1	-	3	3	1	-	-	3	-	-	-	3
CO 2	2	3	3	-	-	-	3	4	4	-	3
CO 3	-	3	3	2	-	-	3	2	4	-	3
CO 4	-	4	3	3	-	-	3	2	4	-	3
Avg.	2	3.2	3	2	-	-	3	2.6	4	-	3

1 – POOR, 2 – AVERAGE, 3 – GOOD, 4 – EXCELLENT

LINEAR ALGEBRA

Course Outcomes:

Upon successful completion of this course, students should be able to:

CO 1. Understand the concepts of vector spaces, subspaces, basis, dimension and their properties

CO 2. Understand the concepts of linear transformations and their properties

CO 3. Apply Cayley- Hamilton theorem to problems for finding the inverse of a matrix and higher powers of matrices without using routine methods

CO 4. Learn the properties of inner product spaces and determine orthogonality in inner product spaces.

Course Outcomes with Program Outcomes and Program Specific Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO 1	-	2	3	-	-	-	2	-	2	-	-
CO 2	-	-	-	-	-	2	2	-	2	-	2
CO 3	3	2	3	3	-	-	2	-	4	-	3
CO 4	-	2	-	3	-	-	2	-	2	2	2
Avg.	3	2	3	3	-	2	2	-	2.5	2	2.3

1 – POOR, 2 – AVERAGE, 3 – GOOD, 4 – EXCELLENT

MULTIPLE INTEGRALS AND ALLICATIONS OF VECTOR CALCULUS

Course Outcomes:

Upon successful completion of this course, students should be able to:

CO 1. Learn multiple integrals as a natural extension of definite integral to a function of two variables in the case of double integral / three variables in the case of triple integral.

CO 2. Learn applications in terms of finding surface area by double integral and volume by triple integral.

CO 3. Determine the gradient, divergence and curl of a vector and vector identities.

CO 4. Evaluate line, surface and volume integrals.

CO 5. Understand relation between surface and volume integrals (Gauss divergence theorem), relation between line integral and volume integral (Green's theorem), relation between line and surface integral (Stokes theorem)

Course Outcomes with Program Outcomes and Program Specific Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO 1	**2**	**2**	**2**	**2**	**-**	**-**	**3**	**2**	**3**	**-**	**2**
CO 2	**2**	**2**	**-**	**-**	**-**	**-**	**1**	**1**	**3**	**-**	**3**
CO 3	**-**	**-**	**-**	**-**	**-**	**-**	**1**	**-**	**3**	**-**	**2**
CO 4	**-**	**-**	**2**	**-**	**-**	**-**	**1**	**-**	**3**	**-**	**2**
CO 5	**2**	**-**	**-**	**-**	**-**	**-**	**1**	**2**	**3**	**-**	**3**
Avg.	**2**	**2**	**2**	**-**	**-**	**-**	**1.4**	**1.6**	**3**	**-**	**2.4**

1 – POOR, 2 – AVERAGE, 3 – GOOD, 4 – EXCELLENT

INTEGRAL TRASFORMS WITH APPLICATIONS

Course Outcomes:

Upon successful completion of this course, students should be able to:

CO 1. Evaluate Laplace transforms of certain functions, find Laplace transforms of derivatives and of integrals.

CO 2. Determine properties of Laplace transform which may be solved by application of special functions namely Dirac delta function, error function, Bessel function and periodic function.

CO 3. Understand properties of inverse Laplace transforms, find inverse Laplace transforms of derivatives and of integrals.

CO 4. Solve ordinary differential equations with constant/ variable coefficients by using Laplace transform method.

CO 5. Comprehend the properties of Fourier transforms and solve problems related to finite Fourier transforms.

Course Outcomes with Program Outcomes and Program Specific Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO 1	**1**	**-**	**3**	**3**	**-**	**-**	**2**	**3**	**3**	**-**	**-**
CO 2	**2**	**-**	**2**	**3**	**-**	**-**	**2**	**1**	**3**	**-**	**-**
CO 3	**1**	**2**	**2**	**-**	**-**	**-**	**2**	**1**	**3**	**-**	**-**
CO 4	**2**	**-**	**2**	**-**	**-**	**-**	**1**	**2**	**3**	**-**	**-**
CO 5	**1**	**2**	**2**	**2**	**-**	**-**	**2**	**1**	**3**	**-**	**-**
Avg.	**1.4**	**2**	**2.2**	**2.6**	**-**	**-**	**1.8**	**1.6**	**3**	**-**	**-**

1 – POOR, 2 – AVERAGE, 3 – GOOD, 4 – EXCELLENT