

SIR C R REDDY COLLEGE FOR WOMEN

Affiliated to Adikavi Nannaya University, Rajamahendravaram



B.Sc

DEPARTMENT OF MATHEMATICS

COURSE OUTCOMES

B.Sc	Semester-I	Credits:4
Course:1	DIFFERENTIAL EQUATIONS	Hrs:75

COURSE OUTCOMES:

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.

B.Sc	Semester-II	Credits:4
Course:2	THREE DIMENSIONAL ANALYTICAL SOLID GEOMETRY	Hrs:75

COURSE OUTCOMES:

CO 1:

Get the knowledge of planes.

CO 2:

Basic idea of lines, sphere and cones.

CO 3:

Understand the properties of planes, lines, spheres and cones.

CO 4:

Express the problems geometrically and then to get the solution.

CO 5:

To study how to trace the curve.

B.Sc	Semester-III	Credits:4
Course:3	ABSTRACT ALGEBRA	Hrs:75

COURSE OUTCOMES:

CO 1:

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

CO 2:

Get the significance of the notation of a normal subgroup.

CO 3:

Get the behavior of permutations and operations on them.

CO 4:

Study the homomorphism's and isomorphism's 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.

B.Sc	Semester-IV	Credits:4
Course:4	MATHEMATICS REAL ANALYSIS	Hrs:75

COURSE OUTCOMES:

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 functions.

CO 4:

Know the geometrical interpretation of mean value theorems.

CO 5:

To study mean – value theorems.

B.Sc	Semester-IV	Credits:4
Course:5	LINEAR ALGEBRA	Hrs:75

COURSE OUTCOMES:

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:

Find the eigen values and eigen vectors.

CO 4:

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

CO 5:

Learn the properties of inner product spaces and determine orthogonally in inner product spaces.

B.Sc	Semester–V(Skill Enhancement Course-Elective)	Credits:4
Course:6A	NUMERICAL METHODS	Hrs:75

COURSE OUTCOMES:

CO 1:

Understand the subject of various numerical methods that are used to obtain approximate solutions.

CO 2:

Understand various finite different concepts and interpolation methods.

CO 3:

Work out numerical differentiation and integration whenever and were Ever routine methods are not applicable.

CO 4:

Find numerical solutions of ordinary differential equations by using various numerical methods.

CO 5:

Analyze and evaluate the accuracy of numerical methods.

B .Sc	Semester–V(Skill Enhancement Course-Elective)	Credits:4
Course:7A	MATHEMATICAL SPECIAL FUNCTIONS	Hrs:75

COURSE OUTCOMES:

CO 1:

Understand the Beta and Gamma functions, their properties and relation between these two functions, understand the orthogonal properties of chebyshev polynomials and recurrence relations.

CO 2:

Find power series solutions of ordinary differential equations.

CO 3:

Solve Hermit equation and write the Hermit polynomial of order (degree) n , also find the generating function for Hermit polynomials, study the orthogonal properties of Hermit polynomials and recurrence relations.

CO 4:

Solve Legendre equations and write the Legendre equation of first kind, find the generating function for Legendre polynomials, understand the orthogonal properties of Legendre polynomials.

CO 5:

Solve Bessel's equations and write the Bessel's equation of first kind of order n , also find the generating function for Bessel's functions understand the orthogonal properties of Bessel's functions.

B .Sc	Semester–III (LIFE SKILL COURSE)	Credits:2
Course	ANALYTICAL SKILL’S	Hrs:30

COURSE OUTCOMES:

CO 1:

Understand the basic concepts of arithmetic ability, quantitative Ability, logical reasoning, business computations and data interpretation
And obtain the associated skills.

CO 2:

Acquire competency in the use of verbal reasoning.

CO 3:

Apply the skills and competencies acquired in the related areas.