SVD Government Degree College (W), Nidadavole

Department of Mathematics

Course Outcomes

CBCS / Semester System (w.e.f. 2020-21 Admitted Batch)

of

I Semester: Mathematics - I
Differential Equations

II Semester Mathematics-II
Three Dimensional Analytical Solid Geometry

III Semester: Mathematics –III
Abstract Algebra

IV Semester: Mathematics – IV (A)
Mathematics Real Analysis

IV Semester:– Mathematics - IV (B)
Linear Algebra

I Semester:Mathematics –I

Differential Equations

(Total Hrs of teaching -60@4hrs/wk)

Aim and objectives of Course:

- This course introduces fundamental knowledge in mathematics that is applicable in the engineering aspects.

Learning outcomes of Course:

- Solving Linear Differential Equations.
- Understand the concept and apply appropriate methods for solving Differential Equations.
- Convert non Exact Homogeneous Equations to Exact Differential Equations by using Integrating Factors.
- Solve Higher order Linear Differential Equations, both Homogeneous and non Homogeneous, with constant coefficients.

II Semester -Mathematics -II

Three Dimensional Analytical Solid Geometry

(Total Hrs of teaching -60@4Hrs/wk)

Aim and objectives of Course:

- In this course students will learn the higher mathematics topics to enable to learn and solve problems in different fields.

Learning outcomes of Course:

- Get the knowledge of Planes
- Basic idea of Lines.
- Understand the properties of Planes, Lines, Spheres and Cones.
- Express the problems geometrically and then get the solution.

III Semester: Mathematics -III

Abstract Algebra

(Total Hrs of teaching -60@4Hrs/wk)

Aim and objectives of Course:

In this course students will learn the higher mathematics topics to enable to learn and solve problems in different fields. Algebra is applicable to all mathematical domains.

Learning outcomes of Course:

- Acquire the basic knowledge and structure of groups, subgroups.
- Get the significance of the notation of a normal subgroups
- Get the behavior of permutations and operations on them.
- Study the homomorphisms and isomorphisms with applications
- Understand the ring theory concepts with the help of knowledge in group theory and to prove the theorems.
- Understand the applications of ring theory in various fields.

IV Semester: Mathematics – IV (A)

Mathematics Real Analysis

(Total Hrs of teaching -60@4Hrs/wk)

Aim and objectives of Course:

- This course covers Riemann- Integral, Sequences and Series of Functions, Mean value theorem, Properties of integral functions.

Learning outcomes of Course:

- Get clear idea about the real numbers and real valued functions
- Obtain the skills of analyzing the concepts and applying appropriatemethods for testing convergence of a sequence/ series.
- Test the continuity and differentiability and Riemann Integration of a function.
- Know the geometrical interpretation of mean value theorems

IV Semester: Mathematics – IV (B)

Linear Algebra

(Total Hrs of teaching -60@4Hrs/wk)

Aim and objectives of Course:

- This course introduces fundamental knowledge in mathematics that is applicable in the engineering aspects.

Learning outcomes of Course:

Upon successful completion of the course, a student will be able to:

- Understand the concepts of vector spaces, subspaces, basises, dimension and their properties.
- Understand the concepts of Linear Transformations and their properties.
- Apply Cayley- Hamilton theorem to problems for finding the inverse of a matrix and higher powers of matrices without using routine methods
- Learn the properties of inner product spaces and determine orthogonally in inner product spaces.