|  |  |  |  |
| --- | --- | --- | --- |
| **SEMESTER** | **Core Course(04)** | **Skill Enhancement**  **Course (SEC) (02)** | **Discipline Specific**  **Elective (DSE) (02)** |
| 1 | Differential Calculus  Credit-06 |  |  |
| 2 | Differential Equations  Credit-06 |  |  |
| 3 | Real Analysis  Credit-06 | SEC1 Credit-02 |  |
| 4 | Algebra  Credit-06 | SEC2 Credit-02 |  |
| 5 |  | SEC3 Credit-02 | DSE1A Credit-06 |
| 6 |  | SEC4 Credit-02 | DSE1B Credit-06 |

**Department of Mathematics**

**B. Sc. Mathematics Course Structure**

Under graduate (B. Sc.) and post graduate (M.Sc. / M.A.) course in mathematics are being run in the department which follow the CBCS system.

**Discipline Specific Electives (DSE)**

DSE 1A (choose one)

1. Matrices

2. Mechanics

3. Linear Algebra

**DSE 1B (choose one)**

1. Numerical Methods

2. Complex Analysis

3. Linear Programming

**Skill Enhancement Course (SEC)**

SEC 1 (choose one)

1. Logic and Sets

2. Analytical Geometry

3. Integral Calculus

**SEC 2 (choose one)**

1. Vector Calculus

2. Theory of Equations

3. Number Theory

**SEC 3 (choose one)**

1. Probability and Statistics

2. Mathematical Finance

3. Mathematical Modelling

**SEC 4 (choose one)**

1. Boolean Algebra

2. Transportation and Game Theory

3. Graph Theory

**M.A/M.Sc. Mathematics Course Structure**

**Semester – I**

**Core Course**

Paper I – Discrete Structures SOS/Math/ C001

Paper II – Abstract Algebra SOS/Math/C002

Paper III – Mechanics SOS/Math/C003

Paper IV – Complex – Analysis SOS/Math/C004

Paper V – Operations Research SOS/Math/C005

Paper VI- Practical SOS/Math/C006

**Semester II**

**Core Course**

Paper VII Abstract Algebra II SOS/Math/C007

Paper VIII Fluid Dynamics (Remove Vth Unit) SOS/Math/C008

Paper IX Operations Research II SOS/Math/C009

Paper X Graph Theory SOS/Math/C0010

Paper XI Topology I SOS/Math/C0011

Paper XII Practical SOS/Math/C0012

**Semester III**

**Core Course**

Paper XIII Topology II SOS/Math/C0010

Paper XIV Measure Theory I SOS/Math/C0014

Paper XV Differential Geometry SOS/Math/C0015

**Elective Course**

Paper XVI Fluid Mechanics SOS/Math/E001

Paper XVII Calculus of Variation SOS/Math/E002

Paper XVIII Computer fundamentals and data structures SOS/Math/E003

Paper XIX Algebraic Coding theory SOS/Math/E004

**Self- Study Course -**

Paper XX From the other Departments (Any one of the following) SOS/Math/E005

(a) Mathematical Techniques

(b) Tensor Analysis and Special Theory of Relativity

(c) Financial Mathematics

**Core Course** Paper XXI Viva-voce SOS/Math/C0016

**Semester IV**

**Core Course**

Paper XXII Measure Theory II SOS/Math/C0017

Paper XXIII Integral Equations and boundary value problems SOS/Math/C0018

Paper XXIV Functional Analysis SOS/Math/C0019

**Elective Course**

Paper XXV Biomechanics SOS/Math/E006

Paper XXVI Fuzzy set theory SOS/Math/E007

Paper XXVII Mathematical modeling SOS/Math/E008

**Core Course**

Paper XXIX Viva-voce SOS/Math/C0020