

## **Department of Mathematics**

### **Certificate Course in Data Analytics for M.Sc. Programme**

#### **Objective**

The primary objective of this certificate course is to equip students with the knowledge and skills necessary to analyze and interpret complex data sets, allowing them to make informed decisions and contribute to the advancement of their respective fields.

**Eligibility:** This certificate course in Data Analytics (additional 9 credits) will be given to those students who are pursuing M.Sc in Mathematics, Physics, Economics, Microbiology and Environmental Biotechnology from IIIT.

**Prerequisite:** Proficiency in mathematics, including calculus, linear algebra, and probability/statistics, is essential. Some special lectures may be provided before 3<sup>rd</sup> semester to those students who don't have exposure of linear algebra and calculus, so that they can understand the subjects required for certificate course.

#### **Curriculum Structure**

| S. N. | Course Code | Course Title                                        | Semester | Contact Hours |   |   |          | Credit   |
|-------|-------------|-----------------------------------------------------|----------|---------------|---|---|----------|----------|
|       |             |                                                     |          | L             | T | P | Total    |          |
| 1     | 24M22MA112  | Techniques of Data Handling and Visualization       | 2nd      | 3             | - | - | 3        | 3        |
| 2     | 24M22MA212  | Regression Models for Data Inference and Prediction | 3rd      | 3             | - | - | 3        | 3        |
| 3     | 24C11MA211  | Pattern Recognition Models for Learning from Data   | 4th      | 3             | - | - | 3        | 3        |
|       |             | <b>Total</b>                                        |          | <b>9</b>      | - | - | <b>9</b> | <b>9</b> |