BCA (Data Science)

SEMESTER I
Cultural Education I
Communicative English
Mathematical Foundations for Data Science
Environmental Science and Sustainability
Computer Essentials for Data science
Problem solving and Programming
Problem solving and Programming Lab
Computer Essentials for Data science Lab

SEMESTER II
Cultural Education II
Professional Communication
Language II
Statistics and Probability
Object Oriented Programming using Java
Operating Systems
Object Oriented Programming Using Java Lab
Database Management System Lab

SEMESTER III
Amrita Value Programme I
Life Skills I
Linear Algebra for Data Science
Exploratory Data Analysis using Python
Data Structures and Algorithms
Computer Networks
Inferential Statistics
Data Structures and Algorithms Lab
Data Science using Spread Sheet Modelling Lab

SEMESTER IV
Amrita Value Programme II
Life Skills II
Data mining
R Programming for Data Sciences
Software Engineering
Web Technologies
Elective A
Live in Labs / Open Elective A
Data Mining Lab
Case Study-Based Seminar

SEMESTER V

Life skills III
Artificial Intelligence
Machine Learning
Elective B
Cloud Computing
Elective C
Cloud computing Lab
Machine Learning Lab
Minor Project

SEMESTER VI

Big Data Analytics and Visualization
Data Governance
Elective D
Big Data Analytics and Visualization Lab
Major Project

ELECTIVES A, B, C

Time-series Analysis
Introduction to IoT
Embedded Systems
Non-relational Databases
Pattern Recognition
Image Processing
Wireless Networks and Communications
Multimedia and Graphics
Bio Informatics
Soft Computing
Advanced operating system and Distributed Computing
Natural Language Processing
Text Mining and Analytics
Secure Data Analytics
Business Intelligence
Quantum Computing
Visual Programming using C#
Design Patterns
Block Chain Technologies