

Goa Institute of Management

BIG DATA ANALYTICS

Course Structure 2020-22

Induction (Preparatory Course)

1. Introduction to R and Python (12 Sessions)
2. Introduction to Advanced Excel, Power BI & Tableau (12 Sessions)
3. Introduction to Data and DBMS (12 Sessions)

Term 1

Credit (16.0)

1. Statistics for Analytics (3.0)
2. Managerial Economics (2.5)
3. Managerial Accounting (3.0)
4. Data Preparation, Integration and Querying (SQL&ETL) (2.0)
5. Strategic Analytics (3.0)
6. Programming Lab (2.5)

Term II

Credit (16.0)

1. Predictive & Prescriptive Analytics {R} (3.0)
2. Introduction to Big Data Ecosystem (1.0)
3. Marketing Management (3.0)
4. Finance for Managers (3.0)
5. Mathematical Models for Management Decision (3.0)
6. Design Thinking (1.0)
7. Big Data Lab (2.0)

Term III

Credit (16.0)

1. AI & Machine Learning (Python) (3.0)
2. Story Telling Using Data & Visualization using Power BI & Tableau (2.0)
3. Operations Management (3.0)
4. Analytics Project Management (1.5)
5. Behavioural Economics (1.5)
6. HR Analytics (3.0)
7. Programming Lab (SAS) (2.0)

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Term IV

Credit (20)

Internship (5 Months)

Term V

Credit (16)

1. Ethics and Governance Issue in Big Data (2.0)
2. Advance Machine Learning (2.5)
3. Robotic Process Automation (1.5)
4. Capstone Business Simulation (2.5)
5. Blockchain (1.5)
6. Elective 1
7. Elective 2
8. Elective 3

Term VI

Credit (16)

1. IOT Analytics (2.5)
2. Cloud Computing & Cyber Security (3.0)
3. Social Media Analytics (2.5)
4. Elective 1
5. Elective 2
6. Elective 3
7. Elective 4

Total Credit: (100)

Term 1 -- 16.0 Credits

Term 2 – 16.0 Credits

Term 3 -- 16.0 Credits

Term 4 – 20.0 Credits

Term 5 – 16.0 Credits

Term 6 – 16.0 Credits

Other necessary tools and software will be covered in workshop mode

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List of Electives in Term V

Financial Analytics (2)
Financial Derivatives (2)
Analytics for Pricing & Revenue (2)
Marketing Analytics (2)
Public Policy Analytics (2)
Healthcare Analytics (2)
Customer Analytics (2)

List of Electives in Term VI

Credit Risk Analytics (2)
Valuation Analytics (2)
Fraud Detection in Banking and Insurance (2)
Financial Econometrics (2)
Supply Chain Analytics (2)
Energy Analytics (2)
Manufacturing Analytics (2)
Transportation Analytics (2)