Goa Institute of Management
BIG DATA ANALYTICS
Course Structure 2019-21

1. Introduction to Data, Databases & Data Mining (10 Sessions)
2. Introduction to Excel (15 Sessions)
3. Basics of Management (10 Sessions)

Term 1
Credit (16.5)
1. Statistics for Analytics (3)
2. Business Economics- Micro (2.5)
3. Managerial Accounting (3)
4. Programming for Analytics – I (R & Python Programming) (2.5)
5. Data Preparation, Integration and Querying (2.5)
6. Managing People (2)
7. Design Thinking (1)

Term II
Credit (16)
1. Predictive & Prescriptive Analytics {R} (3)
2. Big Data Ecosystem and Technology {Big Data Tools} (3)
3. Marketing Management (3)
4. Finance for Managers (3)
5. Mathematical Models for Management Decision (2)
6. Understanding Organization (2)

Term III
Credit (16.5)
1. Machine Learning {Python} (3)
2. Programming for Analytics – II (SAS Programming) (1.5)
3. Story Telling Using Data (2)
4. Production and Operations Management (3)
5. Strategic Management(3)
6. Business Economics- Macro (2)
7. Analytics Project Management (2)
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Term IV  
Credit (20)  
Internship (5 Months)

Term V  
Credit (15 to 17)  
1. Ethics and Governance Issue in Big Data (2)  
2. Advance Machine Learning {Python} (3)  
3. Capstone Business Simulation (2.5)  
4. Elective 1 to 5 (Credit 7.5 – 9.5)

Term VI  
Credit (15 to 17)  
1. IOT Analytics (2.5)  
2. Cloud Computing & Cyber Security (3)  
3. Elective 1 to 5 (Credit 9.5 -11.5)

Total Credit: (101)

Term 1 - 16.5 Credits  
Term 2 - 16 Credits  
Term 3 - 16.5 Credits  
Term 4 - 20 Credits  
Term 5 & 6 - 32 Credits

Other necessary tools and software will be covered in workshop mode
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Course Structure 2019-21

List of Electives in Term V

<table>
<thead>
<tr>
<th>Electives for Term V</th>
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<tbody>
<tr>
<td><strong>Finance, Banking and Insurance</strong></td>
<td><strong>Marketing-E-Com</strong></td>
<td><strong>Public Systems</strong></td>
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<tr>
<td>Financial Analytics (3)</td>
<td>Analytics for Pricing and Revenue (2)</td>
<td>Public Policy Analytics (2)</td>
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<tr>
<td>Valuation Analytics (3)</td>
<td>Marketing Analytics (3)</td>
<td>Healthcare Analytics (2)</td>
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<tr>
<td>Financial Derivatives (3)</td>
<td>Platform Business (2)</td>
<td>Transportation analytics (2.5)</td>
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**Common Electives for Each Bucket**

1. Deep Learning (2 Credit)
2. Blockchain (2)

List of Electives in Term VI

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<tr>
<td>Credit Risk Analytics (2)</td>
<td>Supply Chain Analytics (3)</td>
<td>Energy Analytics (2)</td>
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<tr>
<td>Fraud Detection in Banking and Insurance (2)</td>
<td>Retail analytics (3)</td>
<td>HR Analytics (2)</td>
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<tr>
<td>Insurance analytics (2)</td>
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<tr>
<td>Financial Econometrics (2)</td>
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**Common Electives for Each Bucket**

1. Web & Social Media Analytics (2 Credit)
2. Robotic Process Automation (2)
3. Gamification (2)
4. Digital Transformation (2)