



Department of Computer Science & Engineering (Data- Science)

**COURSE MODULE OF THE SUBJECT TAUGHT FOR THE SESSION 2025-26**  
**(ODD SEM)**

## **Course Syllabus with CO's**



## Department of Computer Science & Engineering (Data- Science)

access in the calculated field.

- v) Create a butterfly chart by reversing the bar chart to compare female & male revenue based on product category.
- vi) Create a calculated field to show the average revenue per state & display profitable & non-profitable state.
- vii) Build a dashboard.

### 10. Analysis of GDP dataset:

- i) Visualize the countries data given in the dataset with respect to latitude and longitude along with country name using symbol maps.
- ii) Create a bar graph to compare GDP of Belgium between 2006 – 2026.
- iii) Using pie chart, visualize the GDP of India, Nepal, Romania, South Asia, Singapore by the year 2010.
- iv) Visualize the countries Bhutan & Costa Rica competing in terms of GDP.
- v) Create a scatter plot or circle views of GDP of Mexico, Algeria, Fiji, Estonia from 2004 to 2006.
- vi) Build an interactive dashboard.

### 11. Analysis of HR Dataset:

- i) Create KPI to show employee count, attrition count, attrition rate, attrition count, active employees, and average age.
- ii) Create a Lollipop Chart to show the attrition rate based on gender category.
- iii) Create a pie chart to show the attrition percentage based on Department Category- Drag department into colours and change automatic to pie. Entire view, Drag attrition count to angle. Label attrition count, change to percent, add total also, edit label.
- iv) Create a bar chart to display the number of employees by Age group,
- v) Create a highlight table to show the Job Satisfaction Rating for each job role based on employee count.
- vi) Create a horizontal bar chart to show the attrition count for each Education field Education field wise attrition – drag education field to rows, sum attrition count to col,
- vii) Create multiple donut chart to show the Attrition Rate by Gender for different Age group.

### 12. Analysis of Amazon Prime Dataset:

- i) Create a Donut chart to show the percentage of movie and tv shows
- ii) Create a area chart to shows by release year and type
- iii) Create a horizontal bar chart to show Top 10 genre
- iv) Create a map to display total shows by country
- v) Create a text sheet to show the description of any movie/movies.
- vi) Build an interactive Dashboard.

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<b>Laboratory Outcome</b>	<p><b>After studying this course, students will be able to</b>  <b>At the end of the course the student will be able to:</b></p> <ol style="list-style-type: none"> <li>1. Design the experiment to create basic charts and graphs using Tableau and Power BI.</li> <li>2. Develop the solution for the given real-world problem.</li> <li>3. Analyze the results and produce substantial written documentation.</li> </ol>
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### **Conduct of Practical Examination:**

The weightage of Continuous Internal Evaluation (CIE) is 50% and for Semester End Exam (SEE) is 50%. The minimum passing mark for the CIE is 40% of the maximum marks (20 marks out of 50) and for the SEE minimum passing mark is 35% of the maximum marks (18 out of 50 marks). A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to each subject/course if the student secures a minimum of 40% (40 marks out of 100) in the sum total of the CIE (Continuous Internal Evaluation) and SEE (Semester End Examination) taken together.

#### **Continuous Internal Evaluation (CIE):**

CIE marks for the practical course are 50 Marks.

The split-up of CIE marks for record/ journal and test are in the ratio 60:40.

- Each experiment is to be evaluated for conduction with an observation sheet and record write-up.

Rubrics for the evaluation of the journal/write-up for hardware/software experiments are designed by the faculty who is handling the laboratory session and are made known to students at the beginning of the practical session.

- Record should contain all the specified experiments in the syllabus and each experiment write-up will be evaluated for 10 marks.

- Total marks scored by the students are scaled down to 30 marks (60% of maximum marks).

- Weightage to be given for neatness and submission of record/write-up on time.

- Department shall conduct a test of 100 marks after the completion of all the experiments listed in the syllabus.

• In a test, test write-up, conduction of experiment, acceptable result, and procedural knowledge will carry a weightage of 60% and the rest 40% for viva-voce.

- The suitable rubrics can be designed to evaluate each student's performance and learning ability.

- The marks scored shall be scaled down to 20 marks (40% of the maximum marks).

The Sum of scaled-down marks scored in the report write-up/journal and marks of a test is the total CIE marks scored by the student.

### **The Correlation of Course Outcomes (CO's) and Program Outcomes (PO's)**

Subject Code:	BCDL504		Title: Data Visualisation Lab						Faculty Name: Mrs. Pallavi A R			
List of Course Outcomes	Program Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO-1	3	2	1	2	-	-	-	-	-	-	-	2
CO-2	3	2	1	2	-	-	-	-	-	-	-	2
CO-3	3	2	1	2	-	-	-	-	-	-	-	2
CO-4	3	2	1	2	-	-	-	-	-	-	-	2
CO-5	3	2	1	2								2
<b>Total</b>	<b>15</b>	<b>10</b>	<b>5</b>	<b>10</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>10</b>

Note: 3 = Strong Contribution    2 = Average Contribution    1 = Weak Contribution    - = No Contribution

### **The Correlation of Course Outcomes (CO's) and Program Specific Outcomes (PSO's)**



**Department of Computer Science & Engineering (Data- Science)**

Subject Code:	BCDL504	TITLE: Data Visualization Lab		Faculty Name: Mrs. Pallavi A R
List of Course Outcomes	Program Specific Outcomes			
	PSO1	PSO2	Total	
<b>CO-1</b>	3	-		3
<b>CO-2</b>	3	-		3
<b>CO-3</b>	3	-		3
<b>CO-4</b>	3	-		3
<b>CO-5</b>	3	-		3