COURSE TITLE	**BUSINESS INTELLIGENCE TOOLS**
COURSE CODE	**05FN0505**
COURSE CREDITS	**2**

Objective:

1 Apply Business Intelligence (BI) tools to perform data analysis and reporting tasks in real-world scenarios.
2 Assess the quality and impact of data visualizations and dashboards on decision-making.
3 Apply BI tools to extract meaningful insights from structured and unstructured datasets.
4 Justify data-driven decisions using BI applications in practical business contexts.

Course Outcomes: After completion of this course, student will be able to:

1 Apply procedures to install and configure various Business Intelligence (BI) tools in practical environments.
2 Examine dashboards and reports to identify patterns, trends, and inconsistencies in data.
3 Apply techniques to connect BI tools with diverse data sources for data extraction and transformation.
4 Interpret datasets using visualizations and data models to uncover meaningful insights.
5 Justify the use of BI tools and techniques in solving real-world business problems.

Pre-requisite of course: Basic knowledge of data analysis and MS Excel; familiarity with databases and SQL is recommended.

Teaching and Examination Scheme

Theory Hours	Tutorial Hours	Practical Hours	ESE	IA	CSE	Viva	Term Work
0	0	4	0	30	20	0	50

Contents : Unit	Topics	Contact Hours
Total Hours		

Suggested List of Experiments:

Contents : Unit	Topics	Contact Hours
1	**UNIT-1** Install Power BI and load a dataset,Import and connect Excel data,Sort and filter the dataset,Use Data Profiling in Power Query,Connect to an online dataset (web source).	15

DR. SUNIL LALCHAND BAJEJA
Digitally signed by (Name of HOD)

DR. RIJWAN KHAN
Digitally signed by (Name of Dean/ Principal)

Suggested List of Experiments:

Contents : Unit	Topics	Contact Hours
2	**UNIT-2** Remove duplicates and handle nulls,Apply conditional formatting and filters,Reshape tables using pivot/unpivot,Merge and append queries,Create calculated columns and measures.	15
3	**UNIT-3** Create bar and line charts from a dataset,Add slicers and filters,Use drill-through features,Design a KPI dashboard,Build an interactive sales dashboard.	15
4	**UNIT-4** Combine Excel and SQL datasets,Write basic DAX expressions (SUM, AVERAGE),Use time intelligence functions in DAX,Publish a report to Power BI Service,Share a dashboard link and collaborate.	15
Total Hours		**60**

Textbook :

1 Applied Microsoft Power BI: Bring Your Data to Life!, Teo Lachev, Prologika Press, 2022

2 Business Intelligence Guidebook, Rick Sherman, Elsevier, 2015

References:

1 Power BI Cookbook, Power BI Cookbook, Brett Powell, Packt Publishing, 2017

Suggested Theory Distribution:

The suggested theory distribution as per Bloom's taxonomy is as follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery					
Remember / Knowledge	**Understand**	**Apply**	**Analyze**	**Evaluate**	**Higher order Thinking / Creative**
10.00	15.00	25.00	25.00	25.00	0.00

Instructional Method:

1 Practical

Supplementary Resources:

1 https://learn.microsoft.com/en-us/power-bi/

2 https://www.kaggle.com/datasets

3 https://enterprisedna.co/

DR. SUNIL LALCHAND BAJEJA
Digitally signed by (Name of HOD)

DR. RIJWAN KHAN
Digitally signed by (Name of Dean/ Principal)