Topical Outline (subject to change):

Week	Topics	Readings/Materials	Weekly Learning Outcome(s)	Instructional Strategies	Evaluation Name	Evaluation Date
1	Course Overview Introduction to data warehousing	Chapter 1 Supplementary Reading	Explain the basic concepts and importance of data warehousing Differentiate transactional database and data warehousing Explain the importance of integration across the organization through Data.Discuss Data Warehousing Design.	Lecture & Lab	N/A	N/A
2	OLAP Multidimensional	Chapter 2 supplementary Materials	Explain and discuss the concepts of OLAP, dimensions,axes, stars, and snowflakes. Design and build your first cube	Lecture & Lab	Term Assignment 1 Defined	N/A
3	OLAP Tabular	Chapters 3	Learn OLAP In-memory engine concepts. Develop a tabular project.	Lecture & lab	Term Assignment work in progress	N/A
4	Advanced OLAP	Chapter 3 Supplementary Materials	Discuss Key performance indicators (KPIs). Explain the main differences between Multidimensional and Tabular OLAP. Key Performance	Lecture and Lab	Term Assignment 1 is due Quiz #1	Week 4
5	ETL and integration services	Chapter 4	Understand, explain and discuss ETL Create the first SSIS project.	Lecture and Lab	Term Assignment # 1 Feedback Term Assignment # 2 defined	N/A
6	Reporting services	Chapter 9	Discuss Microsoft reporting services architecture. Create reports using Microsoft SSRS.	Lecture & Lab	Term Assignment # 2 in Progress	N/A
7	Review and Test # 1 worth 30 marks	Chapters 1,2,3,4,9	Review and test # 1	Test # 1	Test # 1	Week 7
8	Data quality and data cleansing	Chapter 6 & Microsoft tutorials	Understand data quality services in Microsoft SQL server. Install Data quality services (DSQ). Perform a data quality exercise on sample data.	Lecture & Lab	Term Assignment # 2 worth 10 marks due	Week 8
9	Introduction to Data Mining	Chapter 7 & Microsoft tutorials	Explain and discuss the concepts of data-mining. Explain and discuss the concepts of training versus testing data-sets.Explain and	Lecture & Lab	Term Assignment # 3 defined	N/A

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			discuss descriptive models in SSAS. Create a descriptive data-mining solution using the Microsoft decision tree algorithm.			
10	Introduction to Data Mining	Chapter 7 plus Microsoft tutorials	Create a descriptive data mining solution using Microsoft association rules.	Lecture & Lab	Term Assignment # 3 in progress	N/A
11	Predictive models in SQL Server Analytics Services (SSAS)	Chapter 8	Explain and discuss predictive models and their business values to organizations.Identify data patterns using predictive models in (SSAS).	Lecture and Lab	Term Assignment # 3 due Term Assignment # 4 defined. Quiz # 2	Week 11
12	Predictive models in SQL Server Analytics Services (SSAS)	Chapter 8	Understand DMX concepts. Apply DMX to a data mining model.	Lecture and Lab	Term Assignment # 4 in Progress	N/A
13	Predictive models in SQL Server Analytics Services (SSAS)	Chapter 8	Explain and discuss the concept of time series mining models. Perform a project to predict future sales using Microsoft time series.	Lecture and Lab	Term Assignment # 4 in progress	N/A
14	Test # 2 worth 30 marks & Final Term Assignment # 4	Chapters 6,7,8 Plus Microsoft Tutorials	Test # 2	Test # 2	Test # 2 & Final Assignment due	Week 14