
Syllabus and Policies
ITSS 4351 Foundations of Business Intelligence

Course Information

Course Prefix, Number, Section	ITSS 4351.002
Course Title	Foundations of Business Intelligence
Term	Spring 2022
Days & Times	Wednesdays 10:00am -12:45pm

Professor Contact Information

Professor	Juveria Baig
Email Address	Juveria.Baig@UTDallas.edu
Contact Method:	Please reach out to me on email as a primary mode of communication. If a meeting is needed, it will be via Microsoft Teams first.
Office Hours	By appointment JSOM 3.604
Teaching Assistant	aditirajesh.deshpande@utdallas.edu

Course Pre-requisites, Co-requisites, and/or Other Restrictions

ITSS 3300 and ITSS 4300 and (MATH 1326 or MATH 2414 or MATH 2419 or OPRE 3340) and (CS 2305 or MATH 2418 or MATH 2333 or OPRE 3333)

Course Description

This course introduces the principles and concepts of business intelligence and data warehouses. Students will learn about data discovery, requirements gathering for analytical needs, development of data pipelines and visualizations that produce intelligent insights and actions.

Student Learning Objectives/Outcomes

1. Students will be able to describe architecture and methods for storage and provision of enterprise data.
2. Students will be able to apply the ETL process to transform data into an enterprise data warehouse.
3. Students will develop a competency for building business intelligence reporting.
4. Students will demonstrate competency for data mining analysis.
5. Students will understand upcoming trends in the BI landscape such as cloud technologies.

Required Textbooks and Materials

Required Texts

All course materials (handouts, example spreadsheets, etc.) are provided electronically (through eLearning or UTD Box). Students are required to have a laptop computer for use in class. Students encouraged to install covered software on their own computer

Required Materials

A laptop/computer to access eLearning, UTD Email, MS Teams
Tableau Desktop, SQL Server, Alteryx (this will be covered first day of class)

Suggested Course Materials

Suggested Readings/Texts

Foundations of Business Intelligence – Grossmann, Wilfried, RinderleMa, Stefanie

Assignments & Academic Calendar

Topics, Reading Assignments, Due Dates, Exam Dates

Class Date	Topic	Due Date
1/19/2022	Course Overview and Introduction to BI	
1/26/2022	Data Warehouse Concepts 1	Assignment 1
2/2/2022	Data Warehouse Concepts 2	
2/9/2022	Data Warehouse Concepts 3	Assignment 2
2/16/2022	Exam 1	
2/23/2022	Design Thinking and Introduction to Visualization	
3/2/2022	Creating Visualization in Tableau	
3/9/2022	Group Project 1 Presentations	Group Project 1
3/16/2022	Statistical Analysis 1	
3/23/2022	Statistical Analysis 2	Assignment 3
3/30/2022	Open Topic	Group Project 2 Milestone
4/6/2022	Exam 2	
4/13/2022	Business Process Improvement Using BI	
4/20/2022	BI Trends and Careers	Assignment 4
4/27/2022	Group Project 2 Presentations	Group Project 2
5/4/2022	Exam Prep & In-Class Study	
5/11/2022	Final Exam	

Assignments will consist of practical examples, assigned reading or essays.

There are two projects in this class and more details will be discussed in class.

Group Project 1 – Creating Visualizations

In this projects, students will explore a publicly available dataset, apply concepts learned in previous sessions to cleanse and prep the data for visualization. Then, build a dashboard that

shows key insights and present to the class. The other groups will provide assessment on presentations as well.

Group Project 2 – Architecting BI Solutions

In this projects, students will be given a data problem and will need to work in small groups (to be discussed in class) on applying data warehouse/BI theories to find a solution. You will collect and document analytical requirements, design a data warehouse concept and pick your visualization tool. This project will be towards the end of the semester and integrates everything learned throughout the course.

This schedule is subject to change at professor's discretion.

Grading Policy

Grades cutoffs will be:

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
93+	90	87	83	80	77	73	70	67	63	60	<60

Course Policies

Make-up exams

Exams are scheduled in advance and there are no make-up exam's unless the student misses them due to COVID (please follow university guidance on reporting and quarantining).

Extra Credit

At professor's discretion

Late Work

Assignments are due at the beginning of class and must be submitted in e-learning. Assignments submitted after class has begun will be considered late.

Late assignments must be submitted within 3 days of the due date; each late day will incur a 20% penalty.

No assignments will be accepted after 3 days past due date unless prior arrangements were made with the instructor.

Special Assignments

At instructor' discretion upon valid reasons.

Class Attendance

Class attendance is mandatory and will be logged at the beginning of class.

Class Participation

Regular class participation is expected regardless of course modality. Students who fail to participate in class regularly are inviting scholastic difficulty. A portion of the grade for this course is directly tied to your participation in this class. It also includes engaging in group or other activities during class that solicit your feedback on homework assignments, readings, or materials covered in the lectures (and/or labs). Class participation is documented by faculty. Successful participation is defined as consistently adhering to University requirements, as presented in this syllabus. Failure to comply with these University requirements is a violation of the [Student Code of Conduct](#).

Classroom Citizenship

Comet Creed

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:

“As a Comet, I pledge honesty, integrity, and service in all that I do.”

Academic Support Resources

For a complete list of syllabus policies, please read: <https://go.utdallas.edu/syllabus-policies>

The information contained in the following link lists the University’s academic support resources for all students.

Please see <http://go.utdallas.edu/academic-support-resources>.

Classroom Safety and COVID-19 To help preserve the University’s in-person learning environment, UT Dallas recommends the following:

Adhere to the University’s [CDC Updated Guidelines](#) issued on July 30, 2021. All Comets are strongly encouraged to wear face coverings indoors regardless of vaccination status.

Student Resources

Students who have tested positive for COVID-19 or may have been exposed should not attend class in person and should instead follow required disclosure notifications as posted on the university’s website (see "[Student Safety](#)" protocols).

COVID-19 Resources

[Comets United webpage](#): check frequently

[FAQ](#): check out the FAQs and reach out to your instructor or academic advisor if answers are not included

[Student Resources](#): a variety of resources are available to help students to obtain counseling, health care, and academic support.

Classroom Conduct Requirements Related to Public Health Measures

UT Dallas will follow the public health and safety guidelines put forth by the Centers for Disease Control and Prevention (CDC), the Texas Department of State Health Services (DSHS), and local public health agencies that are in effect at that time during the Spring 2022 semester to the extent allowed by state governance. Texas Governor Greg Abbott's Executive Order [GA-38](#) prohibits us from mandating vaccines and face coverings for UT Dallas employees, students, and members of the public on campus. However, we strongly encourage all Comets to get vaccinated and wear face coverings as recommended by the CDC. Check the [Comets United: Latest Updates webpage](#) for the latest guidance on the University's public health measures. Comets are expected to carry out [Student Safety](#) protocols in adherence to the Comet Commitment. Unvaccinated Comets will be expected to complete the [Required Daily Health Screening](#). Those students who do not comply will be referred to the Office of Community Standards and Conduct for disciplinary action under the [Student Code of Conduct – UTSP5003](#).

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.