ITSS 4351 Foundations of Business Intelligence
Syllabus and Policies

Course Information

Course Number/Section	ITSS 4351.001
Course Title	Foundations of Business Intelligence
Term	Fall 2023

Professor Contact Information

Professor	Gaurav Shekhar
Office Phone	972-883-5147
Email Address	Gaurav.Shekhar@UTDallas.edu
Office Location	JSOM 3.611
Office Hours	Wednesdays 3:00 – 4:00 PM (Walk-ins)
Teaching Assistant	Veda Swaroop Dasagrandhi (vedaswaroop.dasagrandhi@utdallas.edu)

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Course Modality and Expectations

Instructional Mode	Traditional
Course Platform	The course will be delivered in person. The class will not be streamed live or any recordings be made available.
Expectations	• There is "NO" substitute to hard work. It has been scientifically proven that hard work is directly proportional to better grades. You are however free to prove me wrong! • "Honesty is the best policy" • The most stupid question in the world is the one not asked. ASK Questions. Remember there is no answer without a question. • "Help thy neighbor". Volunteer to help your peers. This is not only a class, but an experience that all of us want to relish. • Let the creative juices flow. If you wish to see some additional things in the class, let your Professor know. • Time waits for no one. So honor the deadlines. • Read before coming to the class. Don't forget – "Chance favors the prepared mind"

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Course and Instructor Policies

eLearning will be used for class content (e.g., class slides and assignment descriptions) and the recording of grades. Slides will be posted in before class is held. Class announcements (e.g., change in assignment dates) will be sent to the student email on record in eLearning. It is the students' responsibility to regularly check their email accounts.

Instructor Response Policy: The instructor will respond to all student inquiries (emails, voice messages, etc.) within 48 hours (excluding holidays and weekends).

Exams: All exams are scheduled well in advance. If you miss an exam, you will be given a zero! There are no makeups. If you have a legitimate, non-academic reason for missing an exam, you must contact me by email or phone BEFORE the exam starts. **If you contact me AFTER the exam, it is considered missing the exam.**

Attendance Policy: Attendance is extremely important. Students are expected to attend all classes in order to achieve maximum success. Attendance will be taken and used to co-relate the students' level of understanding of the subject. For example, if you see the Professor/TA during the Office Hours and do not attend the classes, well we know where the problem is. There is no makeup for missed in-class assignments.

Late Work: All assignments are due at the beginning of class (not during and not after), on the specified date. I do not accept late assignments unless *prior* arrangements have been made with the instructor. In case of any prior arrangements that are made with the instructor, a penalty of 25% per day, upto 2 days (including weekends) will still be assessed.

Academic Integrity: The University is committed to academic excellence and expects academic honesty from all members of the University community and believes that it is essential for academic excellence and integrity. Academic honesty includes adherence to guidelines established by the instructor in a particular course for both individual and group work. It prohibits representing the work of others to be one's own (plagiarism); receiving unauthorized aid on an assignment (cheating); and using similar papers or other work products to fulfil the obligations of different classes without the instructor's permission. Penalties for academic dishonesty may include a grade of "F" on the work in question or for the course. In addition, any student engaged in academic dishonesty will be subject to disciplinary action. Please refer to the General Polices website (see below) for detailed information pertaining to academic dishonesty, including procedures for determining disciplinary action.

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Class Participation

Regular class participation is expected regardless of course modality. Students who fail to participate in class regularly are inviting scholastic difficulty. 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, even though there are no specific points for attendance. 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.
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Class Recordings

Students are expected to follow appropriate University policies and maintain the security of passwords used to access recorded lectures. Unless the Office of Student AccessAbility has approved the student to record the instruction, students are expressly prohibited from recording any part of this course. Recordings may not be published, reproduced, or shared with those not in the class, or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

The instructor will not record meetings of this course. Students are expected to follow appropriate University policies and maintain the security of passwords used to access recorded lectures. Unless the Office of Student AccessAbility has approved the student to record the instruction, students are expressly prohibited from recording any part of this course. Recordings may not be published, reproduced, or shared with those not in the class, or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. If the instructor or a UTD school/department/office plans any other uses for the recordings, consent of the students identifiable in the recordings is required prior to such use unless an exception is allowed by law. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

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Class Materials

The Instructor will provide class materials that will be made available to all students registered for this class as they are intended to supplement the classroom experience. These materials may be downloaded during the course, however, these materials are for registered students' use only. Classroom materials may not be reproduced or shared with those not in class, or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

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.

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
Students are introduced to foundational business intelligence (BI) concepts and explore the theory and practice of data warehouses for enterprises. BI concepts including data mart schemas, ETL, OLAP, cubes and reporting will be covered. The course will also examine the components of an enterprise data warehouse, extract, cleanse, consolidate, and transform heterogeneous data into a single enterprise data warehouse, and run queries using a data warehouse.

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.

Required Textbooks and Materials
Required Texts
None
Required Materials
A laptop/computer to access eLearning, UTD Email and MS Teams

Suggested Course Materials
*Foundations of Business Intelligence - **Grossmann**, Wilfried, **Rinderle-Ma**, Stefanie*

Textbooks and some other bookstore materials can be ordered online or purchased at the UT Dallas Bookstore.

Technical Requirements
In addition to a confident level of computer and Internet literacy, certain minimum technical requirements must be met to enable a successful learning experience. Please review the important technical requirements on the Getting Started with eLearning webpage.

Course Access and Navigation
This course can be accessed using your UT Dallas NetID account on the [eLearning](#) website.

Please see the course access and navigation section of the [Getting Started with eLearning](#) webpage for more information.

To become familiar with the eLearning tool, please see the [Student eLearning Tutorials](#) webpage.

UT Dallas provides eLearning technical support 24 hours a day, 7 days a week. The [eLearning Support Center](#) includes a toll-free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service.

Communication
This course utilizes online tools for interaction and communication. Some external communication tools such as regular email and a web conferencing tool may also be used during the semester. For more details, please visit the [Student eLearning Tutorials](#) webpage for video demonstrations on eLearning tools.

Student emails and discussion board messages will be answered within 3 working days under normal circumstances.

Distance Learning Student Resources
Online students have access to resources including the McDermott Library, Academic Advising, The Office of Student AccessAbility, and many others. Please see the [eLearning Current Students](#) webpage for more information.

Academic Calendar

Week 1 – August 24	Course Introduction Introduction to Business Intelligence
Week 2 – August 31	OLAP/OLTP/Introduction to SSIS Introduction to Tableau
Week 3 – September 7	ETL/Data Cleansing Introduction to Cubes/Advanced Charts in Tableau
Week 4 – September 14	Cubes, SSIS Reporting
Week 5 – September 21	SAP Crystal Reports , ETL to Tableau – End to End Data Flow
Week 6 – September 28	Advanced BI Use Cases
Week 7 – October 5	**Assessment 1;** Introduction to Data Mining, Decision Trees
Week 8 – October 12	Introduction to Alteryx
Week 9 – October 19	Decision Trees, Clustering/Neural Networks, Naïve Bayes/ Comparison of Data Models
Week 10 – October 26	Introduction to R/Sentiment Analysis /Time Series Analysis
Week 11 – November 2	BI in Business Process Management
Week 12 – November 9	Tableau Analytics Advanced Alteryx
Week 13 – November 16	Rapid Exercises – 20-minute cases Exam Review
Week 14 – November 23	**No Class - Fall Break**
Week 15 – November 30	**Final Presentations**
Week 16 – December 7	**Assessment 2**

You will be graded on –

1. In Class Exercises
2. Assessments (4)
3. Group Project
4. Peer Evaluation/LinkedIn Assignments

Grading Policy

Grade	Criteria
A	93.00 – 100.00
A-	90.00 – 92.99
B+	87.00-89.99
B	83.00-86.99
B-	80.00-82.99
C+	77.00-79.99
C	73.00-76.99
C-	70.00-72.99
D+	67.00-69.99
D	63.00-66.99
D-	62.99 – 60.00
F	59.99 & below

Server Unavailability or Other Technical Difficulties
The University is committed to providing a reliable learning management system to all users. However, in the event of any unexpected server outage or any unusual technical difficulty which prevents students from completing a time sensitive assessment activity, the instructor will provide an appropriate accommodation based on the situation. Students should immediately report any problems to the instructor and also contact the online eLearning Help Desk. The instructor and the eLearning Help Desk will work with the student to resolve any issues at the earliest possible time.

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

Please go to Academic Support Resources webpage for these policies.

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