



Course ITSS 4351.5U1: Foundations of Business Intelligence
Professor Paul Ceverha
Term Summer 2025, June 2 – August 15, 2025

Meetings Mondays 6:00pm-9:45pm JSOM 11.202

PROFESSOR’S CONTACT INFORMATION

Office location	JSOM 3.604
Email address	paul.ceverha@utdallas.edu
Office hours	By appointment, available upon request. Students are strongly encouraged to set up an appointment in Outlook. We can do these on campus or via MS Teams
Teaching Assistant	Keerthana Sreeramareddy, Keerthana.Sreeramareddy@UTDallas.edu
Communications	<p>The University of Texas at Dallas recognizes the value and efficiency of communication between faculty/staff and students through electronic mail. At the same time, email raises some issues concerning security and the identity of each individual in an email exchange. <u>The university encourages all official student email correspondence to be sent only to a student’s U.T. Dallas email address and that faculty and staff consider email from students official only if it originates from a UTD student account.</u> This allows the university to maintain a high degree of confidence in the identity of all individuals corresponding and the security of the transmitted information. UTD furnishes each student with a free email account that is to be used in all communication with university personnel. Using your personal email address is STRONGLY discouraged, due to security and spam blocking concerns.</p> <p>Announcements, assignments, and grades will be posted in eLearning. Microsoft TEAMS will be used for virtual meetings and recordings.</p>

GENERAL COURSE INFORMATION

Pre-requisites, Co-requisites, & Other Restrictions	Prerequisites: 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. (3 semester hours)
Learning Outcomes	<ol style="list-style-type: none"> 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 competency for building business intelligence reporting. 4. Students will demonstrate competence in data mining analysis.
Required Texts, Software & Materials	There is no required textbook for this course. However, the instructor will provide suggested reading throughout the course
Technical Requirements	Students are required to have a web-enabled computing device for <u>every class</u> , since class activities and tests will utilize e-Learning. Please see the instructor as soon as possible if you do not have access to the required type of device. Chromebooks are discouraged due to compatibility issues with certain software.

ITSS 4351.5U1 TENTATIVE CALENDAR, ASSIGNMENTS and KEY DATES
 Summer 2025

<i>Week</i>	<i>Class date</i>	<i>Lecture topic</i>	<i>Chapters/Materials shared</i>	<i>Assignment</i>
1	6/2/2025	Intro to the Course BI and DW refresher	ITSS 4351 Course Introduction BI_DW	
2	6/9/2025	Analytics as a discipline Schemas		Assignment 1
3	6/16/2025	ETL concepts Data management		
4	6/23/2025	OLTP/OLAP Metadata		Assignment 2
5	6/30/2025	Exam 1 review		
6	7/7/2025	No class July 7. Exam 1 July 7- July 11: Schedule Time in Testing Center		
7	7/14/2025	Database Review (SQL, NoSQL) BI Concepts ETL Applications		Assignment 3 and group project
8	7/21/2025	OLAP applications		
7	7/28/2025	Data Visualization Introduction Excel, Tableau, Balanced Scorecard, Power BI, et al		Assignment 4
10	8/4/2025	Exam 2 review		
11	8/11/2025	No class August 11. Exam 2 August 11-15: Schedule Time in Testing Center		

COURSE POLICIES

Instructional Mode	<p>As described in the Coursebook, the class will be held in-class, in-person modality. There is no asynchronous option.</p>
eLearning and Course Platforms	<p>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 more familiar with the eLearning tool, please see the Student eLearning Tutorials webpage.</p> <p>The course will utilize the following platforms:</p> <ul style="list-style-type: none"> • eLearning will be used for all class content (e.g., class slides and assignment descriptions), exams, and the recording of grades. Slides will be posted before class is held. Class announcements (e.g., change in assignment dates) will be sent to the student email on record in eLearning, and posted in eLearning. • It is the students' responsibility to regularly check their UTD email accounts and the eLearning page for this course. • Microsoft TEAMS may be utilized for communications. • Recorded (and annotated) lectures and other communications may be available on Microsoft TEAMS, as well. <p>Active links to TEAMS will be available on the eLearning web site.</p> <p>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.</p> <p>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.</p>
Class Attendance and Participation	<p>ON-TIME ATTENDANCE IS EXPECTED. 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, through periodic quizzes, discussion, and 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).</p> <p>Attendance will be taken periodically via quizzes, and these will be a significant part of your semester grade. There is no makeup for missed in-class assignments and/or quizzes, unless discussed in advance with the professor.</p> <p>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.</p>
Class Recordings and Materials	<p>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.</p> <p>The instructor may provide class materials and/or record meetings of this course. These materials and recordings will be made available to all students registered for this class if the intent is to supplement the classroom experience. 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.</p>

<p style="text-align: center;">Grading</p>	<p>This course will feature a mix of activities and written assignments that may be in class or on campus. Homework will include readings from research materials, assignments, and activities that usually require the student to complete some type of task. Projects will also require outside research. The instructor will provide detailed instructions as well as the grading criteria for each assignment. Please consult the course schedule for deadlines.</p> <p>Your grade will tentatively be based on the total score of the following:</p> <ul style="list-style-type: none"> • 2 Exams: (20% each = 40%). The exams are not cumulative. • Individual Assignments: (40%) • Quizzes: (20%). I typically drop 1-2 lowest quiz grades <p>Resulting in a letter grade of:</p> <ul style="list-style-type: none"> • 94% and above = A • 90%-93.9% = A- • 87-89.9 % = B+ • 84-86.9 points = B • 80-83.9 points = B- • 77-79.9 points = C+ • 74-76.9 points = C • 70-73.9 points = C- • 67-69.9 points = D+ • 64-66.9 points = D • 60-63.9 points = D- • Below 60 = F <p>All grades will be posted as available in eLearning throughout the term.</p>
<p style="text-align: center;">Exams</p>	<p>Exams are scheduled well in advance. Missing an exam results in a score of zero. Make-up exams will be given only for justifiable situations; discuss it with the instructor BEFORE the scheduled exam. If you contact the instructor after the exam, it is considered missing the exam, and no credit will be given for missed exams.</p> <p>If unable to take the exam at its regularly scheduled date and time, the student MUST contact the instructor <i>prior</i> to its regular schedule to arrange a specific date/time to take the exam.</p> <p>Exams may be proctored or administered in the Testing Center, in which case specific instructions will be provided.</p>

<p>Quizzes, Discussion Boards, Assignments and Projects</p>	<p>Assignments will generally be posted well in advance of their due date, depending on our progress in the class. Assignment specific grading criteria will be included with the assignment description and instructions.</p> <p>Quizzes will be used throughout the course and constitute the participation component of the final grade. There will be no make-up for missed quizzes unless discussed with the professor in advance.</p> <p>All assignments will be submitted for grading into eLearning before the due date and time posted. The assignment posting link in eLearning will not be available after the due date and time.</p> <p><u>NEITHER LATE SUBMISSIONS NOR HOMEWORK ASSIGNMENTS SENT BY EMAIL WILL BE ACCEPTED AND THUS WILL NOT BE GRADED</u> unless prior arrangements are made and verified with the instructor. There will be no make-up assignments, nor considerations for last-minute technical difficulties preventing submissions to eLearning, so plan ahead. Students may submit (and resubmit, as it is before the due date) interim work into eLearning, to ensure their work will be graded.</p> <p>Written assignments must adhere to the APA style guide of formatting, citing, and referencing.</p> <p>DO NOT CHEAT and DO NOT PLAGIARIZE. All individual assignments and exams are to be individual efforts. You may collaborate with other students, or to discuss homework or assignments with other students prior to submission. Copying of homework, assignments, or exams, in whole or in part, from other students or from assignments from previous semesters, or from non-university web sites will be considered an act of academic dishonesty. Posting class work on public web sites is also considered an act of academic dishonesty.</p> <p>You are encouraged to ask questions, raise issues and make observations about homework; please be advised that if you have a question or issue with your assignment grade, your entire assignment is subject to re-review (re-grading) which may or may not result in additional point deductions.</p> <p>PLEASE ADD YOUR NAME TO ANY UPLOADED FILES, e.g., "Assignment2_CeverhaP"</p>
<p>Classroom Citizenship</p>	<ol style="list-style-type: none"> i. <u>Class begins on time.</u> Please maintain class decorum and be respectful towards fellow students in the class. If you have a doubt or misunderstanding regarding course work, feel free to discuss it with your instructor. ii. <u>Using your phone during class is not permitted and it is rude.</u> Keep it on silent at all times. No texting. Offenders will be asked to turn off their phones. If this is a recurring problem, students will be asked to give their phones to the instructor which will be returned at the end of the class session. No pictures or video during class time, unless approved by the instructor -- it distracts everyone, and it is a violation of privacy. iii. <u>Use of tablets is allowed,</u> if they are used to read the textbook, or the class notes. iv. <u>These rules will be enforced.</u>
<p>Comet Creed</p>	<p>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:</p> <p><i>"As a Comet, I pledge honesty, integrity, and service in all that I do."</i></p>
<p>Special Assistance</p>	<p>For help you succeed in the class, the following resources are available: Your instructor, TA for the Class, Student Success Center (MC1.302), Student Counseling Center (SSB 4.600), New Student Programs Office (SSB 3.600) among other resources. Of course, a myriad of free resources is available on the internet.</p> <p>The information contained in the following link lists the University's academic support resources for all students. Please go to http://go.utdallas.edu/academic-support-resources.</p>

<p>Accommodations</p>	<p>It is the policy and practice of The University of Texas at Dallas to make reasonable accommodations for students with properly documented disabilities. However, written notification from the AccessAbility Resource Center (ARC) is required. If you are eligible to receive accommodation and would like to request it for this course, please discuss it with me and allow one-week advance notice. Students who have questions about receiving accommodation, or those who have, or think they may have, a disability (mobility, sensory, health, psychological, learning, etc.) are invited to contact ARC for a confidential discussion. ARC is located in the Administration Building, AD 2.224. They can be reached by phone at 972-883-2098, or by email at studentaccess@utdallas.edu</p>
<p>UT Dallas Syllabus Policies and Procedures</p>	<p>The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus.</p> <p>Please go to http://go.utdallas.edu/syllabus-policies for these policies.</p>