ADTA 5230 Data Analytics-II

FALL 2022

Course Information

Course Title and Code: Data Analytics-II, ADTA 5230-001 (10509)
Semester: Fall 2022, 16W
Course Format: Face-to-face

Teaching Team Contact

Instructor: Dr. Levent Bulut
Instructor Email: levent.bulut@unt.edu
Instructor Office Hours: Thursdays 2pm-3pm (via Teams) OR by Appointment

Teaching Assistant (TA): Hrishikesh Sunder Golla
TA Email: hrishikshsundergolla@my.unt.edu
TA office hours: Mondays 3-4pm & Fridays 10-11am. (via Teams)

Communication

Our office hours are listed above, and as a teaching team, we are more than happy to find a different day and time to address your questions. We would prefer that most broad questions go through the Q & A forum in the Discussion Board area. If you have a general question about the course or assignments, please post it there. Either one of our team members will answer it, or, one of your classmates will. This way we can all benefit from questions asked, and they can be answered in a venue that the whole class can see. You may also want to find someone in class to be a "buddy" with. This will give you at least one other person who you can email with questions.

If you have a private question, please contact us via email and we will respond within 24 hours on weekdays (usually sooner). Normally, we will return feedback on all written assignments within 1 week of the due date. However, if we see that we will be unable to return your feedback that quickly, we will post an Announcement to let everyone know when it can be expected.

All communication will take place in CANVAS. It is imperative that you check Canvas every day for important course-related information. Important course announcements about assignments, quizzes, grades, and other course information will be posted in the Announcements section on the CANVAS course website throughout the semester. It is highly recommended that you adjust your CANVAS account settings to receive essential information directly to your email account or cell phone.
Course Description

This course extends the concepts developed in Data Analytics I to multivariate and unstructured data analysis. Modern techniques of multivariate analysis, including association rules, classification methods, time series, and text analysis are explored and implemented with real-world business and industry data. This course also provides a hands-on introduction to state-of-practice technology and tools. The focus of this course will be on the application and interpretation of the methods discussed.

Course objectives

Upon successful completion of this course, learners will be able to:

- build models that predict response output from feature inputs
- apply statistical tools to quantify uncertainty in model estimates and predictions
- use a modern approach to build models from data by using regularization to choose the best mode
- use various classification models to build a probability-based classifier
- understand and be able to apply a variety of multivariate data analysis techniques
- perform various clustering techniques to data as appropriate and explain the results
- explain how to apply techniques for analysis of text and unstructured data
- apply concepts learned in the course to real-world case studies
- apply statistical software tools to perform machine learning analysis
- communicate the results of a data science analysis to a non-technical audience.

Course Structure

This is a 16-week face-to-face course that meets once a week on **Wednesdays from 3:00pm to 4:50pm** at **Env 125**. Each week is scheduled with a beginning and ending date, with multiple activities assigned and due within each week. All students will participate, collaborate, and progress together within each scheduled week. I will provide virtual office hours, via **Teams**, on **Thursday from 2pm till 3pm** to answer your question. Attendance to virtual office hours is optional and the meetings will be recorded for later viewing. Virtual office hours will be via Microsoft Teams.

Prerequisites

This course requires that the student has successfully completed ADTA 5130 Data Analytics 1, DSCI 5180 Introduction to Business Decision Process, or equivalent college graduate-level
Please check the department website for the latest policy changes regarding the course pre-requisite policies. However, in order to be successful in this course you will need to:

- work consistently every week and commit spending at least 10 hours a week reading the assigned chapters, working on assignments and quizzes, working on the group project, and reflecting on the materials covered.
- learn how to use R to conduct statistical analysis.
- cite sources, giving credit to where you obtain information.

**Required Material: McGraw Hill’s CONNECT**

In this course we will use *Modern Business Analytics by Matt Taddy, Lesslie Hendrix, and Matthew Harding, 1st edition (2023)* with McGraw Hill Connect®. To access your material, just login to the course LMS page in Canvas. Connect is an online homework and learning management platform and you will need to access it to complete many of the course assignments.

Here is your REQUIRED course material:

<table>
<thead>
<tr>
<th>Title:</th>
<th>Modern Business Analytics (Connect Access)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edition</td>
<td>1st (2023)</td>
</tr>
<tr>
<td>Author</td>
<td>Matt Taddy, Lesslie Hendrix, and Matthew Harding</td>
</tr>
<tr>
<td>Publisher</td>
<td>McGraw Hill</td>
</tr>
<tr>
<td>ISBN</td>
<td>9781265206444</td>
</tr>
</tbody>
</table>

If you are having trouble registering for or accessing Connect, please contact McGraw Hill’s Customer Support. Live chat, email, and phone support are available 7 days a week. When contacting a support agent, you will always receive a case number. It will be important to save this case number if additional follow up or documentation is needed.

Website: [www.mhhe.com/support](http://www.mhhe.com/support)
Phone: (800) 331-5094
Hours:

- Sunday: 11:00 AM to 11:00 PM CST
- Monday-Thursday: 24 hours
- Friday: 12:00 AM to 8:00 PM CST
- Saturday: 9:00 AM to 7:00 PM CST

Ensure your computer meets system requirements by [troubleshooting your system](#).

**Student Purchase & Registration Information**

For this course, you will purchase access to McGraw Hill’s Connect. Here is how:
**OPTION 1:** Purchase from Connect course URL
You can purchase access directly from the Course Connect page.

When you register, you can create a new Connect account or login with an existing Connect username and password. You will also need to do one of the following:
- Enter your access code
- Purchase access online
- Begin your 14-day Temporary Access period
Please note: After you register, you will have the option to purchase a low-cost, binder-ready, loose-leaf print version of the text through Connect. This is optional and will be shipped directly to you.

**OPTION 2:** Purchase from Connect integrated in CANVAS.
Purchase Connect access through your Canvas account. Login to your UNT Canvas account, and enter your course, then click on the Connect link, which will take you to the Connect registration page where you can follow the prompts.
At that time, you will need to do one of the following:
- Enter your access code
- Purchase access online
- Begin your 14-day Temporary Access period
Please note: After you register, you will have the option to purchase a low-cost, binder-ready, loose-leaf print version of the text through Connect. This is optional and will be shipped directly to you.

**OPTION 3:** Purchase from the UNT Bookstore.
Purchase a Connect code at the UNT bookstore and register either with the course link provided by your instructor. During the registration process, you will be prompted to create a new account or login with an existing Connect username and password. At that time, you will need to do one of the following:
- Enter your access code
- Purchase access online
- Begin your 14-day Temporary Access period
Please note: After you register, you will have the option to purchase a low-cost, binder-ready, loose-leaf print version of the text through Connect. This is optional and will be shipped directly to you.

**Online Access to Course Materials**

- This course was developed and will be facilitated utilizing the CANVAS Learning Management System.
- To get started with the course, please visit Canvas Course page. You can access student guides on Canvas at this site. You will need your EUID and password to log in to the course. If you do not know your EUID or have forgotten your password, please rest it at UNT page.
The Canvas Student app has a mobile version of Canvas that helps students stay current with their courses anywhere.

Download the Canvas Student app on Android and iOS devices.

- For iOS devices, see: How do I download the Canvas Student app on my iOS device?
- For Android devices, see: How do I download the Canvas Student app on my Android device?

We will use the CANVAS learning management system to post important announcements, supplementary materials, and grades. You must check the CANVAS regularly. You are responsible for being aware of information and content posted to the course website in CANVAS. You are expected to check your UNT email every day, as we will occasionally send emails for important announcements or potential changes in the schedule. Missing an important email announcement because you do not check your email regularly is not a valid excuse.

### Technology Requirements?

This course has digital components. To fully participate in this class, students will need a laptop or computer with a webcam and mic and reliable internet access to reference content on the Canvas Learning Management System, McGraw Hill Connect platform and R and RStudio are installed on their device. While it is possible for students to complete some work on their smartphones, this will not be sufficient in all instances, given the limitations of mobile devices. Hence, access to a computer is essential. If circumstances change, you will be informed of other technical needs to access course content. Information on how to be successful in a digital learning environment can be found at Learn Anywhere (https://online.unt.edu/learn).

In this class, students will extensively use the following applications

- **Office 365** for access to UNT email and to Microsoft applications that we will use regularly (Outlook, Teams, Word, Excel, PowerPoint, etc.).
- **CANVAS** for accessing course materials and announcements
- **CANVAS Technical Requirements for App and Browser Compatibility**
- **McGraw Hill’s CONNECT** to be able to complete required course assessments via Canvas.
- **R and RStudio** to conduct statistical analysis

### Student Effort

You are expected to devote at least 10 hours per week to complete the course requirements. That includes all class activities, including reading the book and supplementary resources, watching lesson videos, completing online quizzes, homework assignments, and the group project. Please use your time wisely. Do not hesitate to ask for help and always communicate. Be sure to read your assigned readings, be punctual, and save all your assignments (and back them up!)
Assessing Your Work

The course grade will be determined based on the followings:

<table>
<thead>
<tr>
<th>Grade Item</th>
<th>Submission Platform</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussion Participation</td>
<td>Canvas</td>
<td>1%</td>
</tr>
<tr>
<td>Peer Evaluations</td>
<td>Canvas</td>
<td>4%</td>
</tr>
<tr>
<td>IClicker Activities</td>
<td>IClicker App</td>
<td>5%</td>
</tr>
<tr>
<td>SmartBook Adaptive Assignments</td>
<td>Canvas</td>
<td>20%</td>
</tr>
<tr>
<td>Assignments</td>
<td>Canvas</td>
<td>35%</td>
</tr>
<tr>
<td>Exams</td>
<td>Canvas</td>
<td>10%</td>
</tr>
<tr>
<td>Group Project</td>
<td>Canvas</td>
<td>25%</td>
</tr>
</tbody>
</table>

Your letter grade will be determined by the following overall grading scheme:

<table>
<thead>
<tr>
<th>Course Score (%)</th>
<th>Letter Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>90+</td>
<td>A</td>
</tr>
<tr>
<td>80-89</td>
<td>B</td>
</tr>
<tr>
<td>70-79</td>
<td>C</td>
</tr>
<tr>
<td>60-69</td>
<td>D</td>
</tr>
<tr>
<td>Below 60</td>
<td>F</td>
</tr>
</tbody>
</table>

Discussion Participation (2% of your overall grade)

It is crucial that you form your group at the beginning of Week 1 to start working on your group project. As a part of your grade, you are expected to introduce yourself to the rest of the class and start talking with them to form your group.

Peer Evaluations (4% of your overall grade)

Peer assessment provides a structured learning process to critique and provide feedback to each other on their work. It will also help you to self-assess and improve your own work. In this course, you will conduct peer evaluation two times. Firstly, after the submission of Group Project Showcases, every student will be assigned three submissions for anonymous evaluation based on a rubric provided. You will have five days to submit your first group of evaluations. Secondly, after the submission of Group project final report, every student will be assigned three submissions for anonymous evaluation based on a rubric provided.
IClicker Activities (5% of your overall grade)

IClicker is a free service provided to UNT students. To use IClickers, you will need an internet-enabled device (smartphone, iPad, tablet, or laptop). On the days I use IClicker in a class meeting, you will receive activity credit for your presence in class as well as your correct responses through the IClicker app. Helping others, who were absent on that day, to submit responses to the IClicker questions on others’ behalf by any means necessary is considered as the violation of the honor code.

• You will have to be present physically in class (not necessarily wholeheartedly) to provide your answers to in-class questions asked through IClickers.

• If you forgot your smartphone or other internet-enabled device at home, in your car, or at your friend’s house, you will most probably feel very bad when other students are submitting their responses, but you cannot because you don’t have your cellphone with you and the professor will not accept any excuse to make up for it. Also, if your electronic device run out of battery, you will most probably be very mad at your (innocent) device, because it failed on you when you need it most, and now you cannot transmit your responses to the system and when you offer your professor to write up your answers on a paper, the professor will say NO. Then, you might be mad at your professor, the University administrations, President Biden, your cat, and God knows whom. This negative attitude might make you no fun to be around, it might lead to having fewer friends and a negative outlook, and it might even shorten your life expectancy in the long run as claimed by some studies. So, you will be better off in many aspects if you have enough battery power on your cell phone or other electronic devices on days when you have a class with me.

SmartBook Adaptive Assignments (20% of your overall grade)

There will be SmartBook adaptive assignments, one from each chapter’s material. They are designed to give you feedback about your understanding of the materials covered in each chapter. SmartBook adaptive assignments will be administered via CANVAS, and all are due no later than 11:59 pm (Central Time) on the deadline. SmartBook adaptive assignments are at the hearth of this course. You will learn and excel most of the concepts with Connect’s adaptive technology. You will be provided instruction materials just-in-time as you work to complete SmartBook adaptive assignments. With SmartBook adaptive assignments, you will have mini cycles of questions that consists of no more than five concepts at a time to help you absorb the materials in “chunks.” Once you demonstrate that you understand the concept, the related question will no longer appear. If you continue struggling with the concept, you will have repeating questions to enforce your learning. This will also help me to modify my lectures by identifying the most challenging concepts based on the individualized feedbacks.

Assignments (30% of your overall grade)

There will be homework assignments throughout the semester that are related to the materials covered in each chapter. You will gain hands-on experience to conduct statistical analyses
using R. Homework assignments may include questions to be answered about a specific concept, analysis using provided data sets, interpretation of the results of the analysis, or questions related to the course material and how it was used or misused in a recent news story. All assignments are due no later than 11:59 pm (Central Time) on the designated due. Any assignment submitted after the due date is subject to a 4% penalty per day.

**Group Project (25 % of your overall grade)**

A group project will give you independent applied research experience by using real data and statistical methods. You will complete the semester-long project in a team of up to five students. You will be required to acquire a data set of sufficient size to complete your analysis.

**Project Showcase (10% of your overall grade):**

Your task, as a team, is to decide on a dataset that will serve as the basis for the remainder of the group project assignments. You can use a dataset from your workplace or one of the datasets provided by your instructor. The data size should be big enough to conduct an in-depth statistical analysis. Hence, your raw dataset should have at least 1,000 rows.

There are five deliverables in Project Showcase:

1. **Target variable and audience:** State the target variable in your project and the target audience who will benefit from your analysis.

2. **Key charts:** Create two charts from your dataset that should illustrate key insights you have discovered in the dataset.

3. **Lead Statement:** Write just one sentence, as if it is a lead sentence in a news story, which identifies the most interesting thing you have discovered in your dataset. Your lead sentence should stimulate the reader’s interest and curiosity and your readers are no one other than your classmates.

4. **Elevator pitch:** Designate one of the group members to make an elevator pitch to summarize the insights you have discovered. Your elevator pitch video should have a length of up to 60 seconds.

5. **Statement of Signed Member contribution:** Each member of the project group should indicate their contribution to the project showcase and sign the form that will be provided by your instructor.

**Project Report and Presentation (15% of your overall grade):** There are three deliverables in this part.

1. **Recorded Presentation:** Prepare 10-15 slides explaining some key findings of your statistical analysis and a recommendation about what action should be taken based on your findings. You will then narrate your slides to produce a recorded presentation up to 10 minutes long.
You can designate one member from the group to record the whole presentation or each member can contribute. The presenter does not need to appear in the recorded presentation.

**Final Report:** Write a 1500-2000 words-long project report outlining the key findings of your statistical analysis as well as the suggestions for how your intended audience should respond to your findings. Your project report should not include a table of contents or bibliography. Your project report should include 4-8 charts.

**Statement of Signed Member contribution:** Each member of the project group should indicate their contribution to the final report and recorded presentation and sign the form that will be provided by your instructor.
**Tentative Course Schedule:** Should any change become necessary, it will be announced in CANVAS. It is your responsibility to check for changes in the schedule.

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic / Reading</th>
<th>Items Due</th>
</tr>
</thead>
</table>
| **Week 1** | **All about R**                                     | Purchase McGraw Hill’s Connect  
Form your Project Group  
Week 1 Activity: Introduce yourself  
Install R  
Install R Studio  
Install Quarto  
Install IClicker App |
|          | Reading: Appendix R Primer                           |                                                                           |
| **Week 2** | **Building Models**                                  | Week 2 Assessment: SmartBook Assignment  
Week 2 Assessment: Assignment |
|          | Reading: Ch 1: Regression                            |                                                                           |
| **Week 3** | **Uncertainty in Model Estimates and Prediction**  | Week 3 Assessment: SmartBook Assignment  
Week 3 Assessment: Assignment |
|          | Reading: Ch 2: Uncertainty Quantification           |                                                                           |
| **Weeks 4&5** | **Build Model from Data and Model Selection** | Week 5 Assessment: SmartBook Assignment  
Week 5 Assessment: Assignment |
|          | Reading: Ch 3: Regularization and Selection         |                                                                           |
| Weeks 6 & 7 | **Probability-based Classifiers**  
Reading:  
Ch 4: Classification | Week 6 Assessment: Project Showcase  
Week 7 Assessment: SmartBook Assignment  
Week 7 Assessment: Assignment  
Week 7 Activity: Peer Evaluation |
|---|---|
| Weeks 8 & 9 | **Tree-based Models**  
Reading:  
Ch 7: Trees and Forests | Week 8 Assessment: Exam 1  
Week 9 Assessment: SmartBook Assignment  
Week 9 Assessment: Assignment |
| Weeks 10 & 11 | **Dimension Reduction via Factorization**  
Reading:  
Ch 8: Factor Models | Week 11 Assessment: SmartBook Assignment  
Week 11 Assessment: Assignment |
| Week 12 | **Text Analytics**  
Reading:  
Ch 9: Text as Data | Week 12 Assessment: SmartBook Assignment  
Week 12 Assessment: Assignment |
| Weeks 13 & 14 | **Deep Neural Networks and Keras Framework**  
Reading:  
Ch 10: Deep Learning | Week 14 Assessment: SmartBook Assignment  
Week 14 Assessment: Assignment  
Week 14 Assessment: Exam 2 |
| Weeks 15 & 16 | **Causal Inference**  
Reading:  
Ch 5: Causal Inference with Experiments  
Ch 6: Causal Inference with Controls | Week 15 Assessment: Project Report and Presentation  
Week 16 Activity: Peer Evaluation  
Week 16 Assessment: SmartBook Assignment  
Week 16 Assessment: Assignment |
Technical Assistance

Technical assistance part of working in the online environment involves dealing with the inconveniences and frustration that can arise when technology breaks down or does not perform as expected.

Here at UNT, we have a Student Help Desk that you can contact for help with Canvas or other technology issues.

UIT Help Desk:
UIT Student Help Desk site for technical support.
Email: helpdesk@unt.edu
Phone: 940-565-2324
In Person: Sage Hall, Room 130
Walk-In Availability: 8am-9pm
Telephone Availability: • Sunday: noon-midnight • Monday-Thursday: 8am-midnight • Friday: 8am-8pm • Saturday: 9am-5pm
Laptop Checkout: 8am-7pm
For additional support, visit Canvas Technical Help

Diversity Statement

I value the many perspectives students bring to our campus. Please collaborate with me to create a classroom culture of open communication, mutual respect, and inclusion. All discussions should be respectful and civil. Although disagreements and debates are encouraged, personal attacks are unacceptable. Together, we can ensure a safe and welcoming classroom for all. If you ever feel like this is not the case, please let me know. We are all learning together.

Course Policies

Late Work Policy
All work for this course is due no later than 11:59 pm (Central Time Zone) on the designated due. Any assignment submitted after that time is subject to the following late penalty policy:

<table>
<thead>
<tr>
<th>Grade Items</th>
<th>Penalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score for No-submission</td>
<td>A grade of zero (0)</td>
</tr>
<tr>
<td>Grade reduction for late submission</td>
<td>4% per day</td>
</tr>
<tr>
<td>Maximum grade reduction for late submission</td>
<td>30%</td>
</tr>
<tr>
<td>Lowest possible grade for late submission (that are otherwise correct)</td>
<td>70%</td>
</tr>
</tbody>
</table>
Students who have a university-excused absence (Links to an external site) and have provided documentation within 48 hours of the missed deadline will not be subject to the late-penalty policy. All grade items should be submitted by the end of Week 16.

The University is committed to providing a reliable online course 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 extend the time windows and provide an appropriate accommodation based on the situation. Students should immediately report any problems to the instructor and contact the UNT Student Help Desk: helpdesk@unt.edu or 940.565.2324 and obtain a ticket number. The instructor and the UNT Student Help Desk will work with the student to resolve any issues at the earliest possible time.

Syllabus Change Policy
While the plan is to follow this syllabus as written, it is reasonable to expect that adjustments will be made if necessary due to events that outside of my control. Any changes will be posted in the announcement section of our Canvas course. If these changes affect assignments or due dates, they will be communicated via email as well.

Grade Dispute Policy
You have three days from the time a grade is posted on Canvas to dispute your grade on any grade item. Please whether email the teaching team or schedule a virtual appointment to discuss your situation. If you do not contact the teaching team within three days of receiving your grade, you also forfeit your right to a grade dispute.

Turnitin Notice
Turnitin is used as a tool to assist students in their scholarly writing to address plagiarism issues. All works submitted for credit must be original works created by the scholar uniquely for the class. It is considered inappropriate and unethical, particularly at an advanced undergraduate/graduate level, to make duplicate submissions of a single work for credit in multiple classes, unless specifically requested by the instructor. It is also considered inappropriate and unethical to work together on individual assignments or share work that is to be created on an individual level. Work submitted at the senior/graduate level is expected to demonstrate higher order thinking skills and be of significantly higher quality than work produced at the lower undergraduate levels. It is recommended that students use the Turnitin resource to ensure their work is free of copyright issues prior to final submission of their projects.
University Policies

Course Evaluation
Student feedback is important and an essential part of participation in this course. The student evaluation of instruction is a requirement for all organized classes at UNT. Student Perceptions of Teaching (SPOT) is the student evaluation system for UNT and allows students the ability to confidentially provide constructive feedback to their instructor and department to improve the quality of student experiences in the course. Students will receive an email from "UNT SPOT Course Evaluations via System Notification" (no-reply@iasystem.org) with the survey link. Students should look for the email in their UNT email inbox. Simply click on the link and complete the survey. Once students complete the survey, they will receive a confirmation email that the survey has been submitted. For additional information, please visit the SPOT website (http://spot.unt.edu/) or email spot@unt.edu. SPOT responses are anonymous to instructors/administrators, and they will be able to access results only after they have submitted final grades. Before final grade submission, instructors will not be able to see any responses.

Academic Integrity Standards and Consequences.

According to UNT Policy 06.003, Student Academic Integrity, academic dishonesty occurs when students engage in behaviors including, but not limited to cheating, fabrication, facilitating academic dishonesty, forgery, plagiarism, and sabotage. A finding of academic dishonesty may result in a range of academic penalties or sanctions ranging from admonition to expulsion from the University.

You are expected to follow UNT’s Code of Student Conduct which is intended to “foster a safe environment conducive to learning and development. Students and student groups are expected to conduct themselves in a manner that demonstrates respect for the rights and property of others and upholds the integrity and values of the University community.” You are also expected to follow UNT”s Student Academic Integrity Policy.

ADA Policy

The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking reasonable accommodation must first register with the Office of Disability Access (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with a reasonable accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request reasonable accommodations at any time; however, ODA notices of reasonable accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of reasonable accommodation for every semester and must meet with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of reasonable accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information, refer to the Office of Disability Access website (http://www.unt.edu/oda). You may also contact ODA by phone at (940) 565-4323.
Prohibition of Discrimination, Harassment, and Retaliation (Policy 16.004)

The University of North Texas (UNT) prohibits discrimination and harassment because of race, color, national origin, religion, sex, sexual orientation, gender identity, gender expression, age, disability, genetic information, veteran status, or any other characteristic protected under applicable federal or state law in its application and admission processes; educational programs and activities; employment policies, procedures, and processes; and university facilities. The University takes active measures to prevent such conduct, investigates, and takes remedial action when appropriate.

Emergency Notification & Procedures
UNT uses a system called Eagle Alert to quickly notify students with critical information in the event of an emergency (i.e., severe weather, campus closing, and health and public safety emergencies like chemical spills, fires, or violence). In the event of a university closure, please refer to Canvas for contingency plans for covering course materials.

Retention of Student Records
Student records pertaining to this course are maintained in a secure location by the instructor of record. All records such as exams, answer sheets (with keys), and written papers submitted during the duration of the course are kept for at least one calendar year after course completion. Course work completed via the Canvas online system, including grading information and comments, is also stored in a safe electronic environment for one year. Students have the right to view their individual record; however, information about student’s records will not be divulged to other individuals without proper written consent. Students are encouraged to review the Public Information Policy and the Family Educational Rights and Privacy Act (FERPA) laws and the University’s policy. See UNT Policy 10.10, Records Management and Retention for additional information.

Access to Information - Eagle Connect
Students’ access point for business and academic services at UNT is located at my.unt.edu. All official communication from the University will be delivered to a student’s Eagle Connect account. For more information, please visit the website that explains Eagle Connect and how to forward e-mail Eagle Connect (https://it.unt.edu/eagleconnect)

Sexual Assault Prevention
UNT is committed to providing a safe learning environment free of all forms of sexual misconduct, including sexual harassment sexual assault, domestic violence, dating violence, and stalking. Federal laws (Title IX and the Violence Against Women Act) and UNT policies prohibit discrimination on the basis of sex, and therefore prohibit sexual misconduct. If you or someone you know is experiencing sexual harassment, relationship violence, stalking, and/or sexual assault, there are campus resources available to provide support and assistance. UNT’s Survivor Advocates can assist a student who has been impacted by violence by filing protective orders, completing crime victim’s compensation applications, contacting professors for absences related to an assault, working with housing to facilitate a room change where appropriate, and connecting students to other resources available both on and off campus. The Survivor Advocates can be reached at SurvivorAdvocate@unt.edu or by calling the Dean
of Students Office at 940-565-2648. Additionally, alleged sexual misconduct can be non-confidentially reported to the Title IX Coordinator at oeo@unt.edu or at (940) 565 275.

Important Notice for F-1 Students taking Distance Education Courses

Federal Regulation To read detailed Immigration and Customs Enforcement regulations for F-1 students taking online courses please go to the Electronic Code of Federal Regulations website (http://www.ecfr.gov/). The specific portion concerning distance education courses is located at Title 8 CFR 214.2 Paragraph (f) (6) (i) (G).

The paragraph reads:
(G) For F-1 students enrolled in classes for credit or classroom hours, no more than the equivalent of one class or three credits per session, term, semester, trimester, or quarter may be counted toward the full course of study requirement if the class is taken on-line or through distance education and does not require the student's physical attendance for classes, examination, or other purposes integral to completion of the class. An on-line or distance education course is a course that is offered principally through the use of television, audio, or computer transmission including open broadcast, closed circuit, cable, microwave, or satellite, audio conferencing, or computer conferencing. If the F-1 student’s course of study is in a language study program, no on-line or distance education classes may be considered to count toward a student's full course of study requirement.

University of North Texas Compliance
To comply with immigration regulations, an F-1 visa holder within the United States may need to engage in an on-campus experiential component for this course. This component (which must be approved in advance by the instructor) can include activities such as taking an on-campus exam, participating in an on-campus lecture or lab activity, or other on-campus experience integral to the completion of this course.

If such an on-campus activity is required, it is the student’s responsibility to do the following:

(1) Submit a written request to the instructor for an on-campus experiential component within one week of the start of the course.

(2) Ensure that the activity on campus takes place and the instructor documents it in writing with a notice sent to the International Student and Scholar Services Office. ISSS has a form available that you may use for this purpose.

Because the decision may have serious immigration consequences, if an F-1 student is unsure about his or her need to participate in an on-campus experiential component for this course, s/he should contact the UNT International Student and Scholar Services Office (telephone 940-565-2195 or email internationaladvising@unt.edu) to get clarification before the one-week deadline.

Student Verification
UNT takes measures to protect the integrity of educational credentials awarded to students enrolled in distance education courses by verifying student identity, protecting student privacy, and notifying students of any special meeting times/locations or additional charges associated
with student identity verification in distance education courses. Check the UNT Policy 07-002 Student Identity Verification, Privacy, and Notification and Distance Education Courses

Use of Student Work
A student owns the copyright for all work (e.g., software, photographs, reports, presentations, and email postings) he or she creates within a class and the University is not entitled to use any student work without the student’s permission unless all the following criteria are met:

• The work is used only once.
• The work is not used in its entirety.
• Use of the work does not affect any potential profits from the work.
• The student is not identified.
• The work is identified as student work.

If the use of the work does not meet all the above criteria, then the University office or department using the work must obtain the student’s written permission.

Download the UNT System Permission, Waiver and Release Form

Transmission and Recording of Student Images in Electronically Delivered Courses

1. No permission is needed from a student for his or her image or voice to be transmitted live via videoconference or streaming media, but all students should be informed when courses are to be conducted using either method of delivery.

2. In the event an instructor records student presentation, he or she must obtain permission from the student using a signed release to use the recording for future classes in accordance with the Use of Student-Created Work guidelines above.

3. Instructors who video-record their class lectures with the intention of re-using some or all of recordings for future class offerings must notify students on the course syllabus if students’ images may appear on video. This course employs lecture capture technology to record class sessions. Students may occasionally appear on video. The lecture recordings will be available to you for study purposes and may be reused in future course offerings. If you do not want your image to appear, turn off your camera prior to the start of the recording.

No notification is needed if only audio and slide capture is used or if the video only records the instructor's image. However, the instructor is encouraged to let students know the recordings will be available to them for study purposes.

Class Recordings & Student Likenesses
Any synchronous sessions in this course will be recorded for students enrolled in this class section to refer to throughout the semester. Class recordings are the intellectual property of the university or instructor and are reserved for use only by students in this class and only for educational purposes. Students may not post or otherwise share the recordings outside the class, or outside the Canvas Learning Management System, in any form. Failing to follow this restriction is a violation of the UNT Code of Student Conduct and could lead to disciplinary action.
Grades ofIncomplete
Grades of Incomplete will only be given per university policy as outlined by the Office of the Registrar.

Academic Support & Student Services

Student Support Services

Mental Health
UNT provides mental health resources to students to help ensure there are numerous outlets to turn to that wholeheartedly care for and are there for students in need, regardless of the nature of an issue or its severity. Listed below are several resources on campus that can support your academic success and mental well-being:

- Student Health and Wellness Center
- Counseling and Testing Services
- UNT Care Team
- UNT Psychiatric Services
- Individual Counseling

Chosen Names
A chosen name is a name that a person goes by that may or may not match their legal name. If you have a chosen name that is different from your legal name and would like that to be used in class, please let the instructor know. Below is a list of resources for updating your chosen name at UNT.

- UNT Records
- UNT ID Card
- UNT Email Address
- Legal Name

*UNT euIDs cannot be changed at this time. The collaborating offices are working on a process to make this option accessible to UNT community members.

Pronouns
Pronouns (she/her, they/them, he/him, etc.) are a public way for people to address you, much like your name, and can be shared with a name when making an introduction, both virtually and in-person. Just as we ask and do not assume someone’s name, we should also ask and not assume someone’s pronouns.
You can add your pronouns to your Canvas account so that they follow your name when posting to discussion boards, submitting assignments, etc.
Below is a list of additional resources regarding pronouns and their usage:

- What are pronouns and why are they important?
- How do I use pronouns?
- How do I share my pronouns?
- How do I ask for another person’s pronouns?
- How do I correct myself or others when the wrong pronoun is used?

Additional Student Support Services

- Registrar (https://registrar.unt.edu/registration)
• Financial Aid (https://financialaid.unt.edu)
• Student Legal Services (https://studentaffairs.unt.edu/student-legal-services)
• Career Center (https://careercenter.unt.edu)
• Multicultural Center (https://idea.unt.edu/multicultural-center)
• Counseling and Testing Services (https://studentaffairs.unt.edu/counseling-and-testing-services)
• Pride Alliance (https://idea.unt.edu/pridealliance)
• UNT Food Pantry (https://studentaffairs.unt.edu/food-pantry)

Academic Support Services
• Academic Resource Center (https://clear.unt.edu/canvas/student-resources)
• Academic Success Center (https://success.unt.edu/asc)
• UNT Libraries (https://library.unt.edu)
• Writing Center (https://writingcenter.unt.edu)
• Math Lab (https://learningcenter.unt.edu/math-lab)

Scholarly Expectations

Copyright Notice
Some or all the materials on this course web site may be protected by copyright. Federal copyright law prohibits the reproduction, distribution, public performance, or public display of copyrighted materials without the express and written permission of the copyright owner, unless fair use or another exemption under copyright law applies. Additional copyright information may be located at http://policy.unt.edu/policy/08-001.

UNT Code of Student Conduct

Every student in my class can improve by doing their own work and trying their hardest with access to appropriate resources. Students who use other people’s work without citations will be violating UNT’s Academic Integrity Policy. Please read and follow this important set of guidelines for your academic success (https://policy.unt.edu/policy/06-003). If you have questions about this, or any UNT policy, please email me or come discuss this with me during my office hours.

You are encouraged to become familiar with the University’s Code of Student Conduct and the Policy of Academic Integrity (Links to an external site.) found on the Dean of Students website. The Dean of Students Office (opens in a new window) (Links to an external site.) enforces the Code. The Code explains what conduct is prohibited, the process the DOS uses to review reports of alleged misconduct by students, and the sanctions that can be assigned. When students may have violated the Code, they meet with a representative from the Dean of Students Office to discuss the alleged misconduct in an educational process. The University’s expectations for student conduct apply to all instructional forums, including University and electronic classroom, labs, discussion groups, field trips, etc.

Of particular interest are the following terms:
ADTA 5230 Data Analytics-II

- **Cheating** – intentionally using or attempting to use unauthorized materials, information, or study aids in any academic exercise. The term academic exercise includes all forms of work submitted for credit or hours.
- **Plagiarism** – the deliberate adoption or reproduction of ideas, words, or statements of another person as one’s own without acknowledgement.
- **Fabrication** – intentional and unauthorized falsification or invention of any information or citation in an academic exercise.
- **Facilitating academic dishonesty** – intentionally or knowingly helping or attempting to help another to violate a provision of the institutional code of academic integrity.

The policies contained on the course website apply to this course. In addition, you are expected to adhere to the ADTA Academic Integrity Policy outlined below. If you have questions regarding any of the information presented regarding academic integrity, please feel free to contact me.

**Academic Integrity**

All works submitted for credit must be original works created by the scholar uniquely for the class. It is considered inappropriate and unethical, particularly at the graduate level, to make duplicate submissions of a single work for credit in multiple classes, unless specifically requested by the instructor. Work submitted at the graduate level is expected to demonstrate higher order thinking skills and be of significantly higher quality than work produced at the undergraduate level.

**ADTA Academic Integrity Policy**

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<tr>
<th>Occurrence</th>
<th>Minor Assignments (e.g., Discussions, Homework, and Journals)</th>
<th>Major Assignments (e.g., Exams and Projects worth more than 10% of your grade)</th>
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<td>1st Warning</td>
<td>1. First written warning 2. Min. 20% deduction</td>
<td>1. Written warning 2. Min. 15% deduction</td>
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<td>3rd Warning</td>
<td>1. Written Letter 2. Min. 0 grade for that assignment</td>
<td>1. Written Letter 2. Min. 0 grade for that assignment</td>
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