ADTA 5340.003: Discovery and Learning with Big Data

Instructor

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Office Hours: Mondays and Thursdays 10:45 – 11:45 AM CST, or by appointment.

Communication Expectations:

The best way to communicate with me is by emailing me directly, copying the attending TA(s) where applicable, or by setting up an appointment. Please email me and copy the attending TA(s) with any questions or concerns. I do check my emails regularly and will try to respond as quickly as possible. However, if you do not receive a response within two business days, please send a follow-up email. All emails must be sent to my official UNT email ID**:** Richard.Appiah@unt.edu; and please avoid emailing me via Canvas. For appointments, please let me know at least 24 hours in advance.

Course Description

This course introduces the fundamentals of data analytics and machine learning with big data. The goal of this course is to provide students with both theoretical knowledge and practical experience leading to mastery of big data analytics and machine learning (ML), using both small and large datasets. As these fundamentals are introduced, exemplary technologies will illustrate how machine learning can be applied to real-world solutions. The problems are being considered in the context of big data analytics. Exercises and examples will consider both simple and complex data structures and data ranges from clean and structured to dirty and unstructured.

Course Objectives

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

1. Develop an understanding of the fundamental concepts of big data and machine learning.
2. Apply Exploratory Data Analysis (EDA) concepts leveraging the Python programming language and the Jupyter Integrated Development Environment (IDE).
3. Develop and articulate results from Supervised and Unsupervised Machine Learning models, including correctly identifying algorithms appropriate for the assigned data set.
4. Develop and articulate results from Supervised and Unsupervised Microsoft Machine Learning Studio models, including correctly identifying algorithms appropriate for the data set.
5. Apply skills and knowledge learned in class to real-world case study problems and develop Machine Learning models to solve problems.

Topics included:

• Python Basics
• Data analytics life cycle
• Data preprocessing
• Exploratory Data Analysis (EDA)
• Overview of big data analytics and ML:
• Supervised Algorithms
• Unsupervised Algorithms
• Evaluating Algorithms
• Big data analytics and ML with NumPy, Pandas, Scikit-Learn, etc. in Python

Course Structure

This is a 16-week on-site class that will cover 14 modules. We will meet in-person every week and the lectures will not be recorded. Besides attending the classes, students are expected to participate in various activities.
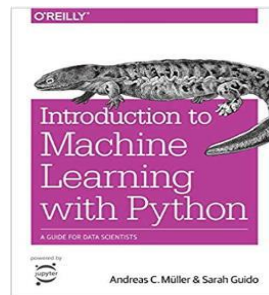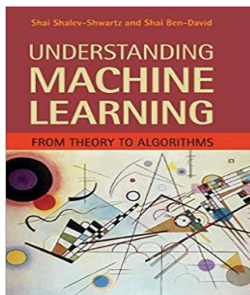
Course Prerequisites or Other Restrictions

There are no prerequisites for the course.

Required/Recommended Materials

No textbook is required for this course, but there will be articles to read and videos to watch throughout the semester.

The books listed below are NOT required, but you might find them beneficial for extra reinforcement of the course material.

1. Shai Shalev-Shwartz & Shai Ben-David (2014). Understanding Machine Learning: From Theory to Algorithms. Cambridge University Press. ISBN-13: 978-1107057135
2. Andreas C. Muller & Sarah Guido (2016). Introduction to Machine Learning with Python. O'Reilley Media. ISBN-13: 978-1449369415
3. Bill Labnovic (2014). Introducing Python: Modern Computing in Simple Packages. ISBN-13: 9781449359362

Online Access to Course Materials
- This course was developed and utilizes the CANVAS Learning Management System.
- To get started with the course, please visit https://unt.instructure.com/login/ldap. 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 go to: https://ams.unt.edu/

- The Canvas Student app has a mobile version of Canvas that helps students stay current with their courses anywhere.
  - For iOS devices, see: How do I download the Canvas Student app on my iOS device? https://community.canvaslms.com/docs/DOC-9831-18561185379 .
  - For Android devices, see: How do I download the Canvas Student app on my Android device? https://community.canvaslms.com/docs/DOC-9758-18555199445

I will use the CANVAS learning management system to post important announcements, supplementary materials, and grades. You must check 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 I 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/computer with a webcam/mic and reliable internet access to reference content on the Canvas Learning Management System as well as Python and Jupyter installed on their device. While students can 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. Information on how to be successful in a digital learning environment can be found at Learn Anywhere (https://online.unt.edu/learn).

Minimum Technology Requirements

To meet the minimum requirements of this course, you will need the following:

- A computer

- Reliable internet access

- Speakers/microphone/camera/plug-ins

- Office 365 for access to UNT email and to Microsoft applications that we will use regularly (Outlook, Teams, Word, Excel, PowerPoint, etc.) and Zoom via Canvas

- Python and Jupyter Notebook tools for machine learning modeling

- Canvas Technical Requirements (https://clear.unt.edu/supported-technologies/canvas/requirements)

Computer Skills & Digital Literacy

This course utilizes Python to implement analytics techniques with curriculum delivered on our Canvas platform. You should be able to successfully:

- Use Canvas including uploading and downloading files and posting to discussion boards

- Send email with attachments

- Download and install software

- Use spreadsheet programs

- Use presentation and graphics programs

- Printing Word documents OR opening and printing pdf files, using Adobe Acrobat Reader

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Teaching Philosophy

I am dedicated to guiding my students towards becoming not just skilled professionals but also responsible, innovative, and ethically minded contributors to society. In order to achieve this, I will encourage my students to utilize cutting edge technologies in the dispensation of their course work in ethical and academically acceptable submissions. Other major bedrocks to my teaching delivery include the integration of real-world experiences, and hands-on approach in a continuous improvement feedback loop. By this approach, I strive to demonstrate a commitment to providing an education that is both academically rigorous and richly aligned with the demands of the contemporary data analytics landscape.

How to Succeed in this Course

Complete Your Work

Complete your work on time and contact me and the attending TA(s), where applicable, when you have questions. Contact us through email and/or by utilizing my office hours. The office hours offer you an opportunity to ask for clarification or find support with understanding class materials. Additional office hours are available by contacting me to schedule an appointment. Remember, your success is our goal.

Learn and Grow

UNT strives to offer you a high-quality education and a supportive environment, so you learn and grow. As a faculty member, I am committed to helping you be successful as a student. To learn more about campus resources and how to succeed at UNT, visit unt.edu/success and explore unt.edu/wellness. To get all your enrollment and student financial-related questions answered, go to scrappysays.unt.edu.

Engage

Every student in this class should have the right to learn and engage in an environment of respect and courtesy from others. We will discuss our classroom's habits of engagement, and I also encourage you to review UNT's student code of conduct so that we can all start with the same baseline civility understanding (Code of Student Conduct) (https://policy.unt.edu/policy/07-012).

Seek Accommodation if Needed

The University of North Texas makes reasonable academic accommodations for students with disabilities. Please review the ADA Policy section for more information.

Course Requirements

The following are the course requirements.

1. The student will be responsible for checking the UNT email announcements and other types of class communication daily.
2. The student will access and follow all course instructions in the syllabus, announcements, assignments, and all other class-related documents.
3. The student will complete all the class assignments in the time frame specified in the class documents, including the course calendar, to participate effectively in class activities. Please note that there will be a 10% deduction for each day the work is submitted late.

4. The student will complete the midterm exam, final exam and all assigned projects within the time frame specified in the class documents. **There are NO extensions for the** midterm exam, final exam **and/or final project.**

Assessing Your Work

The course grade will be determined based on the following:

Grade Item	Weight
Attendance	5%
Discussion Post	5%
Assignments	25%
Midterm	20%
Final Project	25%
Final Exam	20%

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

Course Score (%)	Letter Grade
90-100	A
80-89.9	B
70-79.9	C
60-69.9	D
0-59.9	F

Attendance - 5%
Regular attendance will be taken in class every week and will account for 5% of the overall grade.

Discussion Post(s) - 5%
A discussion post at the beginning of the course lets you introduce yourself to the class. Your introduction is expected to be professional, thoughtful and respectful. Particularly, I will encourage you to highlight your past experiences in data analytics endeavors such as data handling, algorithm development, programming and scripting platforms familiarity, etc.

Assignments - 25%
There will be regular assessment assignments throughout the semester that are related to the materials covered. You will gain hands-on experience conducting data related tasks with various tools or software. Assignments may include questions to be answered about a specific concept, analysis using datasets, interpretation of the results, or questions directly/indirectly related to the course material. You might also be asked to read and review relevant articles to answer questions in an assignment.

Midterm Exam - 20%
The midterm exam will be around the middle of the semester, and it will be open book/notes/slides. The test will cover all course materials covered in the first 7 weeks of classes in the semester.

Final Exam - 20%
There will be a final exam will be at the end of the semester; this will be comprehensive and open book/notes/slides.

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Final Project - 25%

There will be a group-based final project in the course. The final project is structured to expose students to typical industry-style analytic project execution and delivery. Please take note of the following regarding the final project:

- **Project Topic**: All group projects will be assigned by the instructor. This is the common practice in most companies where you are assigned projects to execute instead of you proposing your own projects which might not be in the business interest of the company.

- **Group Membership**: Group assignments will be done by the instructor, to reflect what is commonly practiced in most industrial settings where you are mostly assigned to project teams rather than you choosing your preferred colleagues to work with.

- **Marks Allocation**: 0.8 of the total 25% will be allocated for the group submission of the expected deliverables, and 0.2 of the total 25% will be allocated to an individual independent executive summary of the project to demonstrate your overall participation and understanding of the project execution and findings.

Furrher project details regarding task specific expectations will be given as part of the project instructions when you are assigned in the 9th week of classes in the semester.

Weekly Course Schedule

This schedule is subject to change by the professor. Any changes to this schedule will be communicated in class or via class email or Canvas announcement. Additional readings and activities may be added, which will be noted in the weekly module overview instructions.

Week	Date	Topic(s)	Activity/ Assignment
1	8/18 – 8/22	Course Overview Introduction: AI and Technology Advancements Introduction to Jupyter Notebook Fundamentals of Programming in Python (Review) Discussion Post: Personal Introduction	Discussion Post Due Date: 8/24 Assignment #1 Due Date: 8/27
2	8/25 – 8/29	Overview: AI, Machine Learning, and Deep Learning Big Data: Structured and Unstructured Data (Review) Python: Programming Techniques (Review)	Assignment #2 Due Date: 9/3
3	9/2 – 9/5	AI and Big Data Analytics - PART I Data Science: Data Analytics Life Cycle (Review)	Assignment #3 Due: 9/10
4	9/8 – 9/12	AI and Big Data Analytics - PART II Useful Python Libraries: NumPy Arrays & Pandas Series (Review)	Assignment #4 Due Date: 9/17

5	9/15 – 9/19	Machine Learning: Learning Styles - Overview Machine Learning: Supervised Models - Overview Supervised Learning: Linear Algorithms: Overview Useful Python: Pandas DataFrame (Review)	Assignment #5 Due Date: 9/24
6	9/22 – 9/26	Supervised Learning: Linear Regression Linear Regression in Python with Scikit-Learn Visualization with Pandas & Matplotlib (Review)	Assignment #6 Due Date: 10/1
7	9/29 – 10/3	Supervised Learning - Linear Classification: Logistic Regression Logistic Regression in Python with Scikit-Learn	Assignment #7 Due Date:10/8
8	10/6 – 10/10	**Midterm Exam** Date: **Thursday, October 9th, 2025, at 2:00 PM CST**	**Midterm Exam Date: 10/9**
9	10/13 – 10/17	Supervised Learning - Non-Linear Classification: KNN K-Nearest Neighbors (KNN) in Python with Scikit-Learn Final Project Assignment	Assignment #8 Due Date: 10/22
10	10/20 – 10/24	Supervised Learning: Non-Linear Classification: Decision Tree Decision Tree (CART) in Python with Scikit-Learn Final Project Review/Updates	Assignment #9 Due Date: 10/29
11	10/27 – 11/31	Machine Learning: Unsupervised Models - Overview Unsupervised Learning: Clustering - Overview Unsupervised Learning: Clustering: K-Mean Algorithm Final Project Review/Updates	Assignment #10 Due Date:11/5
12	11/3 – 11/7	Ensemble Techniques: Random Forest Algorithm - Pros & Cons: Random Forest vs Decision Tree	Assignment #11 Due Date: 11/12
13	11/10 – 11/14	Evaluating Machine Learning Models Final Project Review/Updates	No Assignment Final Project
14	11/17 – 11/21	Final Project Execution/Write-up	Final Project
Fall Break	**11/24 – 11/28**	**Fall Break**	**Fall Break**
15	12/1 – 12/5	Final Project Presentation/Write-up Final Exam – Date: **Thursday, December 4th, 2025, at 2:00 PM CST**	Final Exam Final Project
16	12/8 – 12/12	Finals Week Final Project Submission: **Due on Wednesday, December 10th, 2025, at 11:59 PM CST**	Finals Week **Final Project Submission**

Technical Assistance

The 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 technical issues.

UIT Help Desk: UIT Student Help Desk site (https://www.unt.edu/helpdesk)
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 (https://community.canvaslms.com/docs/DOC-10554-4212710328)

Communication Policies

Course Announcements: You must check Canvas every day for important course-related information. It is highly recommended that you adjust your CANVAS account settings to receive essential information directly to your email account or cell phone.

Important course announcements about assignments, exams, grades, and other course information will be posted in the Announcements section on the CANVAS course website throughout the semester. Students are recommended to set up notifications in CANVAS to stay informed of course news and other course updates.

Classroom Engagement Policies

I value the many perspectives students bring to our campus. Please collaborate with me to create a classroom culture of open communication and mutual respect for all. 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

Attendance
Students are expected to attend class meetings regularly and abide by the attendance policy established for the course and by the University. It is important that you communicate with the professor and the instructional team prior to being absent so you, the professor, and the instructional team can discuss and mitigate the impact of the absence on your attainment of course learning goals. Please inform the professor and instructional team if you cannot attend class meetings because you are ill, in mindfulness of the health and safety of everyone in our community.

Recordings
This is a face-to-face class, not an online one, meaning you are expected to be physically present

for each class period this semester. If several students are sick, I will record my lecture via Zoom, but the course recording will only be provided for students with a valid reason for missing class.

Late Work

All assignments are to be submitted by the due date and time as published in the assignment page on Canvas. The deadline for submitting an assignment is 11:59 pm on the due date. After the deadline, you will incur a 10% deduction for each day late. No late midterm exam, final exam or final project will be accepted.

Syllabus Change Policy

While changes to this syllabus in not anticipated, it is reasonable to expect that adjustments could be made, if necessary, due to events beyond my control. Any such changes will be posted in the announcement section of the course in Canvas or will be announced in class. If these changes affect assignments or due dates, they will be adjusted accordingly.

Online Assignment and Examination Policy

The University is committed to providing all users with a reliable online course system. However, if any unexpected server outage or any unusual technical difficulty prevents students from completing a time-sensitive assessment activity, the instructor will extend the time windows and provide appropriate accommodation based on the situation. Students should immediately report any problems to the instructor and contact the UNT Student Help Desk at helpdesk@unt.edu or 940.565.2324. The instructor and the UNT Student Help Desk will work with the affected student to resolve any issues immediately.

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 the final submission of their course work.

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." The Code of Student Conduct can be found at https://policy.unt.edu/sites/default/files/07.012_CodeOfStudConduct.Final8_.19.format.pdf.

You are also expected to follow UNT's Student Academic Integrity Policy. The Student Academic Integrity Policy can be found at   https://policy.unt.edu/sites/default/files/06.003.AcadIntegrity.Final_.pdf

Policy on the Use of AI Tools

General Use: Students are encouraged to use Artificial Intelligence (AI) tools to improve their learning and practice throughout this course. These tools can help students grasp

complex concepts, engage in creative problem-solving, and get additional practice with course-related skills.

Use in Assignments:

- Discussion Assignments: AI tools may be used freely in discussion assignments. Students are not required to attribute the use of AI tools in these contexts, allowing for straightforward integration and experimentation with the technology to deepen understanding and engagement with the course material.
- Graded Homework and Final Project: The use of AI tools is permitted in completing graded homework assignments and the final project. However, students must follow these guidelines:
    o Attribution: Clearly state the use of AI tools in your submissions.
    o Documentation: Include a copy of the prompts used in interactions with AI tools as part of your assignment submission. This transparency is essential to maintain academic integrity and to allow for proper evaluation of your understanding and original contributions. **Citing only AI or ChatGPT is insufficient in any academic writing assignment (e.g., a project report). Students must provide the references used - articles, textbook chapter, etc.**
    o Spell Checking and Grammar Corrections: Students may use AI tools for spell checking and grammar corrections in any written work. **Students are allowed to improve writings originally produced by themselves by using AI tools to edit, paraphrase, and proofread. However, if the percentage attributed to AI by the AI writing detector for a graded assignment is scored high (on the answers) then the work should be reviewed further for a possible plagiarism violation.** It is required that students clearly state:
        ▪ Tools Used: Identify the AI tools utilized for spell checking and grammar corrections.
        ▪ Application: Specify the sections or parts of the assignment where these tools were used. This information should be explicitly stated in the assignment submission.

Exams:

- Midterm and Final Exams: The use of AI tools is strictly prohibited during both the midterm and final exams. These assessments are designed to evaluate individual knowledge and problem-solving skills without the aid of external AI assistance.
    o Policy Violation Consequences: Any student found using AI tools during these exams will be considered in violation of the course's academic integrity policies. Such violations will be reported and may result in disciplinary action in accordance with the university's standards.

Responsibility: Regardless of whether AI tools are used, students are completely responsible for ensuring the authenticity and originality of their work submitted for academic evaluation. This includes a full understanding of the material and the ability to discuss and defend all submitted work, irrespective of the tools used in its creation.

All works submitted for credit must be original works created by the scholar uniquely for the class. It is considered inappropriate and unethical to make duplicate submissions of a single work for credit in multiple classes unless specifically requested by the instructor.

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 this 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 Policy

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 failing from the course to expulsion from the University. The consequences of academic dishonesty are harsh especially after the introduction of generative AI tools like GPT4 and Bard. The students are supposed to follow the instructions carefully.**

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 accommodation 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.

Acceptable Student Behavior

Student behavior that interferes with an instructor's ability to conduct a class or other students' opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Dean of Students to consider whether the student's conduct violated the Code of Student Conduct. The University's expectations for student conduct apply to all instructional forums, including University and electronic classroom, labs, discussion groups, field trips, etc. Visit UNT's Code of Student Conduct (https://deanofstudents.unt.edu/conduct) to learn more.

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, 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.

See UNT Policy 07-002 Student Identity Verification, Privacy, and Notification and Distance

Education Courses (https://policy.unt.edu/policy/07-002).

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 in order 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

Synchronous (live) 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 of Incomplete

Grades of Incomplete will only be given per university policy as outlined by the Office of the Registrar.

Academic Support and 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 (https://studentaffairs.unt.edu/student-health-and-wellness-center)
- Counseling and Testing Services (https://studentaffairs.unt.edu/counseling-and-testing-services)
- UNT Care Team (https://studentaffairs.unt.edu/care)
- UNT Psychiatric Services (https://studentaffairs.unt.edu/student-health-and-wellness-center/services/psychiatry)
- Individual Counseling (https://studentaffairs.unt.edu/counseling-and-testing-services/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.

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)

Emergency Notification and 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.

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:

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. Use of generative AI tools (like Bard and ChatGPT) is not allowed in this course unless stated otherwise. It is considered inappropriate and unethical, particularly at an advanced 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

The University of North Texas promotes the integrity of learning and embraces the core values of trust and honesty. Academic integrity is based on educational principles and procedures that protect the rights of all participants in the educational process and validate the legitimacy of degrees awarded by the University. In the investigation and resolution of allegations of student academic dishonesty, the University's actions are intended to be corrective, educationally sound, fundamentally fair, and based on reliable evidence.

The UNT Student Academic Integrity Policy is found at

https://policy.unt.edu/policy/06-003

ADTA students must read and adhere to the university, department, and course Academic Integrity expectations. The consequences of violating Academic Integrity expectations are outlined below.

Advanced Data Analytics Integrity Policy

	Penalty	Other
1st Academic Integrity Offense	The minimum penalty is a 0 for the assignment AND a deduction of one letter grade from the final grade for the course. Other penalties may be assessed by the course instructor up to course failure, depending on the severity of the offense.	All Academic Integrity offenses will be reported to the UNT Academic Integrity Office.
2nd Academic Integrity Offense	Suspension from the ADTA program.	A second offense is defined as a separately reported offense either in the same class as the 1st offense or in a different course. Students suspended for a second Academic Integrity violation will not be allowed to enroll in ADTA courses for 1 calendar year. For students who had a single Academic Integrity violation prior to Fall 2023, a second violation will result in suspension from the ADTA program.
3rd Academic Integrity Offense	Dismissal from the ADTA program.	Students committing a 3rd Academic Integrity offense will be dismissed from the program. For students who had multiple Academic Integrity violations prior to Fall 2023, any additional violation will result in dismissal from the ADTA program.