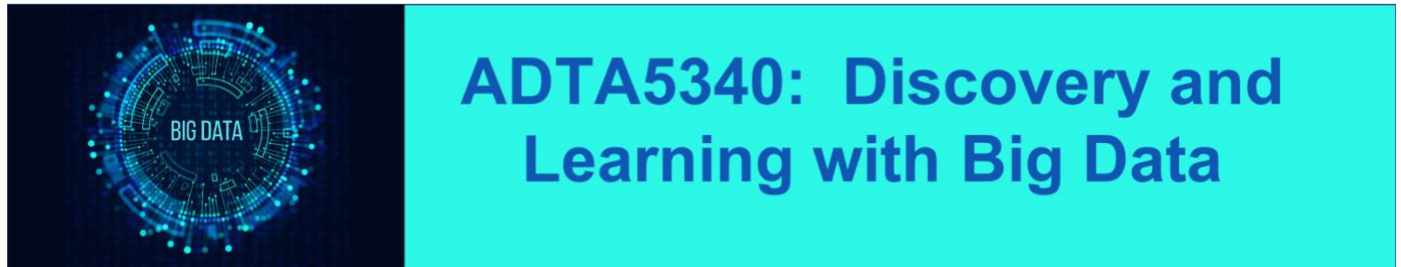


Course Syllabus

ADTA 5340 – Discovery and Learning with Big Data



COURSE INFORMATION

- ADTA 5340: Discovery and Learning with Big Data – SPRING 2021 8W2 – March 8 – April 30
- ADTA 5340: 3 credit hours
- ADTA 5340: Online

Professor Contact Information

- Professor: LeAnn K. Boyce
- Office Hours: Online by appointment
- Email Address: Leann.Boyce@unt.edu

About Your Professor



Welcome to ADTA 5340 – Discovery and Learning with Big Data. I would like to share a little information about my background. I am an Adjunct Professor for the Advanced Data Analytics Program in the Toulouse Graduate School at UNT. I joined UNT in the Fall of 2013 as a master's student and have been working as a teaching assistant at UNT for 6 1/2 six years and a Teaching Fellow for the past two semesters. Before my time here at UNT, I also was a teaching assistant/fellow at Texas Woman's University while earning a master's degree in government.

I am excited to have you in class and I look forward to a successful semester.

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

Required prerequisite courses: NONE

Materials – Text, Readings, Supplementary Readings

No textbook is required for this course but we will have articles to read throughout the semester (these are listed in the weekly modules under content).

These books are NOT required but you might find them beneficial for extra reinforcement of the material.



- Bengfort, B. & Kim, J. (2016). Data Analytics with Hadoop. O'Reilly. ISBN: 978-1491913703
- Lubanovic, B. (2014). Introducing Python: Modern Computing in Simple Packages. O'Reilly. ISBN: 9781449359362
- Marr, B. (2016). Big Data in Practice: How 45 Successful Companies Used Big Data Analytics to Deliver Extraordinary Results. Wiley. ISBN: 978-1119231387
- McKinney, W. (2018). Python for Data Analysis. O'Reilly. ISBN: 978-1-491-95766-0
- Muller, A. & Guido, S. (2017). Introduction to Machine Learning with Python. O'Reilly. ISBN: 978-1449369415

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, using both small and large datasets. As these fundamentals are introduced, exemplary technologies will be employed to 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, as well as data ranges from clean and structured to dirty and unstructured.

Course Objectives

- Outcome 1** Apply Exploratory Data Analysis concepts leveraging the Python programming language and the Jupyter Integrated Development Environment
- Outcome 2** Develop and articulate results from Supervised and Unsupervised Python Machine Learning models including correct identification of algorithms appropriate for the assigned data set
- Outcome 3** Design and develop a Big Data storage environment leveraging cloud-based technologies and tools within the Hadoop ecosystem
- Outcome 4** Develop and articulate results from Supervised and Unsupervised Microsoft Machine Learning Studio models including correct identification of algorithms appropriate for the assigned data set
- Outcome 5** Apply skills and knowledge learned in class to real-world case study problems and develop Machine Learning models to solve problems

Course Topics

- Python Basics
- Data analytics life cycle
- Data preprocessing
- Exploratory Data Analysis (EDA)
- Big data analytics and machine learning: Overview
- Big data analytics and machine learning: Supervised Linear Algorithms.
- Big data analytics and machine learning: Supervised Non-Linear Algorithms.
- Big data analytics and machine learning: Unsupervised Algorithms
- Big data analytics and machine learning: Evaluating Algorithms
- Big data analytics and machine learning with NumPy, Pandas, Scikit-Learn in Python
- Apache Hadoop ecosystem and its major components
- Apache Hadoop ecosystem and the cloud technology
- HD Insight
- Power BI
- Azure Data Factory
- Azure Machine Learning

Teaching Philosophy

I believe students must be given clear direction in order for them to succeed. It is important that they understand the course learning objectives as documented in the syllabus, and the deadlines for submission of all course work as documented on the course calendar. I have found that if a student understands the learning objectives and the contribution to their professional development of each assignment, their quality of their work improves. I also believe that students need to be given timely feedback so that they know how to improve and to respond to communications from students in a timely manner. Timely feedback help students gain self-confidence and inspire them to fully engage in the course material and to believe that they can do well. It is important for students to know that as a professor, I understand that “life happens” and that I will be flexible when a legitimate problem arises. I also think that it is important to establish performance guidelines in the syllabus, and to establish a safe and welcoming learning community in each course. It is my responsibility as a teacher to get my students ready for the workforce and to ensure that they are prepared to meet the professional challenges ahead.

I look forward to a wonderful semester!

COURSE REQUIREMENTS

1. The student will be responsible for checking the announcements in the UNT email and other types of class communication daily.
2. The student will access and follow all course instructions found 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.
4. The student will complete all the assessment tests and exams – if required – in the time frame specified in the class documents, including the course calendar.
5. The student will complete all the projects – if required – in the time frame specified in the class documents, including the course calendar.

COMMUNICATIONS

Interaction with Instructor: I look forward to getting to know all of you and working with you. Contact me anytime using my UNT email (Leann.Boyce@unt.edu). I will check the email daily and will make every effort to respond as quickly as possible. Please let me know in advance if you intend to have an online meeting.

ASSIGNMENTS, ASSESSMENTS, and PROJECTS

Come to class ready to discuss weekly readings/videos and questions, except for the midterm take-home week and the final week.

There will be **twelve Python exercises** throughout the course.

- Students are required to submit their homework on time.

There will be **six homework assignments** throughout the course.

- Students are required to submit their homework on time.

There are **six discussions** throughout the course.

- Students are required to submit their homework on time.

There are **four quizzes** throughout the course.

- Students are required to submit their homework on time.

There will be **one midterm take-home exam**.

- Midterm take-home exam: Assigned and due in Module 4 (April 4th).
- Students are required to submit their midterm on time.

There will be **a final project**.

- The student will complete a final project following the project instructions.
- Students will submit the final project by the deadline provided on the Course Calendar.

Make-Up Policy

No make-up assignment or exams will be offered except for being approved in advance. Students will be required to provide necessary documentation.

Late-work Policy

All assignments are to be submitted by the due date and time.

The deadline for submitting an assignment is 11:59 PM on the due date.

Late submissions can still be submitted up to 24 hours after the deadline. Assignments submitted within 24 hours after the due date/time will be subject to a 25% penalty. No submissions will be accepted later than 24 hours after the deadline.

NOTES: Late work is subject to the penalty described above unless previously approved by the instructor.

Class Schedule

The following is a tentative schedule. Should any change become necessary, it will be announced via the UNT email. It is the student's responsibility to check for changes in the schedule.

Module	Date	Topics
1	03/08/20 21- 03/14/20 21	<p>I will have a meeting March 8th for those of you would like to meet to say hello and go over the syllabus and the course in general. I will record the meeting, so this meeting is NOT mandatory. The zoom link is: Join URL: https://unt.zoom.us/j/82583321279</p> <p>Lecture 1: Online Welcome Session (see above) Lecture 2: Introduction to Python and Introduction to Jupyter Notebook Lecture 3: Big Data and Machine Learning</p> <p>Readings/Video:</p> <ul style="list-style-type: none"> • What is AI? (video) • Davenport, T., & Ronanki, R. (2018). Artificial Intelligence for the Real World. <i>Harvard Business Review</i>. Retrieved from https://hbr.org/2018/01/artificial-intelligence-for-the-real-world <p>Homework:</p> <ul style="list-style-type: none"> • Discussion: Personal Introduction • Module 1 Discussion • Homework Assignment 1: Environment Configuration • Fundamentals of Programming in Python • Basic Techniques of Programming (both Part I & II) in Python • Built-in Basic Data Types in Python

2	03/15/20 21- 03/21/20 21	<p>Lecture 1: Analytics Life Cycle</p> <p>Lecture 2: Data Quality and Exploratory Data Analysis</p> <p>Lecture 3: Python: Data Structures: Lists and Dictionaries</p> <p>Readings/ Videos:</p> <ul style="list-style-type: none"> ▪ Siva, S. (2020). “The Generic” Data Science Life Cycle. <i>Towards Data Science Inc.</i> Retrieved from https://towardsdatascience.com/stoend-to-end-data-science-life-cycle-6387523b5afc (Links to an external site.) ▪ Bowne-Anderson, H. (2018). What Data Scientists Really Do, According to 35 Data Scientists. Retrieved from https://hbr.org/2018/08/what-data-scientists-really-do-according-to-35-data-scientists (Links to an external site.) • Gray, D. (2019). 10 Reasons Why Integration Projects Fail. Retrieved from https://caserta.com/data-blog/reasons-why-data-projects-fail/ (Links to an external site.) • S&P Global. (2019). Avoiding Garbage in Machine Learning. Retrieved from https://www.spglobal.com/en/research-insights/articles/avoiding-garbage-in-machine-learning-shell <p>Homework:</p> <ul style="list-style-type: none"> • Module 2 Quiz • Module 2 Discussion • Formatting Output in Python • Python Data Structures: Lists • Python Data Structures: Range • Python Data Structures: Strings • Python Data Structures: Tuples
3	03/22/20 21- 03/28/20 21	<p>Lecture 1: Machine Learning: Supervised Linear and Logistic Regression</p> <p>Lecture 2: Python Library</p> <p>Lecture 3: Data Visualization with Pandas & Matplotlib</p> <p>Readings:</p> <ul style="list-style-type: none"> • Read the Docs. (, 2017). Concepts — ML Glossary documentation. Retrieved from https://ml-cheatsheet.readthedocs.io/en/latest/nn_concepts.html (Links to an external site.) • Fogarty, T. (2019). Regression or Classification? Linear or Logistic? Retrieved from https://towardsdatascience.com/regression-or-classification-linear-or-logistic-f093e8757b9c (Links to an external site.)

		<ul style="list-style-type: none"> • Here is a great source as it is a repository of software for the Python programming language: https://pypi.org/ (Links to an external site.) • Bourke, D. (2019). 5 Beginner-Friendly Steps to Learn Machine Learning and Data Science with Python. Retrieved from https://towardsdatascience.com/5-beginner-friendly-steps-to-learn-machine-learning-and-data-science-with-python-bf69e211ade5 <p>Guest Speaker: Rex Pruitt, see bio in the Content page for this module. Remember guest speakers will present on Thursday (March 25th) and will be recorded. These sessions are optional, but I highly recommend you either attending virtually or watching the recording.</p> <p>Homework:</p> <ul style="list-style-type: none"> • Python Data Structures: Series • Python Data Structures: Dataframes • Python Data Structures: NumPy Arrays • Linear and Logistic Regression and Data Visualization with Matplotlib
4	03/29/20 21- 04/04/20 21	<p>Lecture 1: Supervised Learning: CART & KNN</p> <p>Readings:</p> <p>Don't get bogged down with the math in these articles. These are all good to give you an overview of the topics that will be discussed in the videos for class.</p> <ul style="list-style-type: none"> • Bui, H. (2020). Decision Tree Fundamentals. Retrieved from https://towardsdatascience.com/decision-tree-fundamentals-388f57a60d2a (Links to an external site.) • Harrison, O. (2018). Machine Learning Basics with the K-Nearest Neighbors Algorithm. Retrieved from https://towardsdatascience.com/machine-learning-basics-with-the-k-nearest-neighbors-algorithm-6a6e71d01761 (Links to an external site.) • Lutes, J. (2020). Entropy and Information Gain in Decision Trees. Retrieved from https://towardsdatascience.com/entropy-and-information-gain-in-decision-trees-c7db67a3a293 • Swift, N. (2017). Greedy Algorithms. Retrieved from https://medium.com/the-graph/greedy-algorithms-f91424e56780

		<p>THIS IS ALSO MIDTERM WEEK! The midterm will open Sunday at 8:00 am and will close Saturday at 11:59 pm.</p> <p>You will have two weeks to complete the CART & KNN assignment, since this is also midterm week.</p> <p>Guest Speaker: Marina Pashkevich, see bio in the Content page for this module. Remember guest speakers will present on Thursday (April 1st). This is optional but highly recommended. I know this is the midterm week so remember this session will be recorded.</p> <p>Homework:</p> <ul style="list-style-type: none"> • Midterm
5	04/05/20 21- 04/11/20 21	<p>Lecture 1: Big Data and Apache Hadoop</p> <p>Lecture 2: Introduction to MS Azure and HD Insight</p> <p>Lecture 3: Machine Learning: Unsupervised Learning: Kmeans</p> <p>Readings:</p> <ul style="list-style-type: none"> • Hadoop Ecosystem. (2019). Retrieved from https://www.geeksforgeeks.org/hadoop-ecosystem/ (Links to an external site.) • Knight, W. (2020). AI Is All the Rage. So Why Aren't More Businesses Using It? Retrieved from https://www.wired.com/story/ai-why-not-more-businesses-use/ <p>Homework:</p> <ul style="list-style-type: none"> • KNN and CART (from Module 4) • Module 5 – Quiz • Module 5 - Discussion • Unsupervised Kmeans and Hadoop
6	04/12/20 21- 04/18/20 21	<p>Lecture 1: Data Visualization with Power BI</p> <p>Lecture 2: Loading and Processing Data with HD Insight</p> <p>Readings:</p> <ul style="list-style-type: none"> • Dcruz, J. (2020). How to visualize data using Power BI? Retrieved from https://towardsdatascience.com/how-to-visualize-data-using-power-bi-9ec1413e976e • Goel, P. (2020). How Business Intelligence is Changing the Future of Business. Retrieved from https://www.dataversity.net/how-business-intelligence-is-changing-the-future-of-business/

		<ul style="list-style-type: none"> Please look over the information on Azure HDInsight: https://docs.microsoft.com/en-us/azure/hdinsight/hdinsight-overview <p>Guest Speaker: Mark Boyce, see bio in the Content page for this module. Remember guest speakers will present on Thursdays (April 15th).</p> <p>Homework:</p> <ul style="list-style-type: none"> Module 6 - Discussion Power BI, Azure, and Hive
7	04/19/20 21- 04/25/20 21	<p>Lecture 1: Azure Data Factory Lecture 2: Azure Machine Learning Studio</p> <p>Readings:</p> <p>Safi, R., (2020). Azure Data Factory: Organize your big data workflows in the cloud. Retrieved from https://www.softwebsolutions.com/resources/integration-of-azure-data-factory.html (Links to an external site.)</p> <p>Yaseen, A. (2020). Starting your journey with Microsoft Azure Data Factor. Retrieved from https://www.sqlshack.com/starting-your-journey-with-microsoft-azure-data-factory/ (Links to an external site.) (This article will help you if you forget what we go over in class.)</p> <p>Here is a source to further your knowledge on Azure Machine Learning: https://www.dataversity.net/page/2/?s=Azure+Machine+Learning (Links to an external site.) (This is only for reference.)</p> <p>Homework:</p> <ul style="list-style-type: none"> Module 7 - Discussion Module 7 – Quiz Data Factory and MLS
8	04/23/20 21- 04/30/20 21	<p>Take – Home Final (Final will open at 8 am on the 23rd)</p> <p>NO CLASS</p>

GRADING POLICY

The student's grade in the course consists of the following components:

Advanced Data Analytics – Toulouse Graduate School – University of North Texas

Python Fundamental Assignments	10%
Homework Assignments:	20%
Midterm:	25%
Quizzes	10%
Discussion	10%
Final Paper:	25%

The final letter grade will be determined as follows:

• **A: 90 – 100** • **B: 80 – 89** • **C: 65 – 79** • **D: 50 – 64** • **F: < 50**

ACCESS & NAVIGATION Access and Log in Information

This course was developed and will be facilitated utilizing the University of North Texas' resources. To be able to access the UNT systems, the student will need his/her EUID and password. If you do not know your EUID or have forgotten your password, please go to the website at <http://ams.unt.edu>.

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](http://www.unt.edu/helpdesk/index.htm) (<http://www.unt.edu/helpdesk/index.htm>)

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>)

COURSE POLICIES

Class Participation

Attendance is expected for this class. Students are required to log in regularly to the online class site. Students are also required to participate in all class activities such as discussion boards, chat or conference sessions, and group projects. To learn more about campus resources and information on how you can achieve success, go to <https://succeed.unt.edu>.

COVID-19 Impact on Attendance

While attendance is expected as outlined above, it is important for all of us to be mindful of the health and safety of everyone in our community, especially given concerns about COVID-19. Please contact me if you are unable to attend class because you are ill, or unable to attend class due to a related issue regarding COVID-19. It is important that you communicate with me prior to being absent so I may make a decision about accommodating your request to be excused from class.

If you are experiencing any symptoms of COVID-19 (<https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>) please seek medical attention from the Student Health and Wellness Center (940-565-2333 or askSHWC@unt.edu) or your health care provider PRIOR to coming to campus. UNT also requires you to contact the UNT COVID Hotline at 844-366-5892 or COVID@unt.edu for guidance on actions to take due to symptoms, pending or positive test results, or potential exposure. While attendance is an important part of succeeding in this class, your own health, and those of others in the community, is more important.

Class Materials for Remote Instruction

Remote instruction may be necessary if community health conditions change or you need to self-isolate or quarantine due to COVID-19. Students will need access to a [webcam and microphone – faculty member to include what other basic equipment is needed] to participate in fully remote portions of the class. Additional required classroom materials for remote learning include: [list specific software, supplies, equipment or system requirements needed for the course]. Information on how to be successful in a remote learning environment can be found at <https://online.unt.edu/learn>.

Statement on Face Covering

Face coverings are required in all UNT facilities. This course has been approved for an exception to the face covering requirement to facilitate student learning. Portions of the class are to be delivered without face coverings. Times when face coverings can be removed will be indicated during each class period. If you are unable to wear a face covering or do not feel you can safely attend class without your face covering due to a disability, please contact the Office of Disability Access to request an accommodation. UNT face covering requirements are subject to change due to community health guidelines. Any changes will be communicated by your instructor.

ACADEMIC POLICIES

Scholarly Expectations

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.

Instructor Responsibilities and Feedback

The instructor is responsible for responding to student questions about assignments and projects, about the course material presented, and for providing additional resources to enhance understanding of course material. Timely feedback is essential for student success and the instructor is responsible for providing timely feedback to students throughout the course. The instructor will actively participate in each week's discussion forum and will provide feedback to students each week regarding their participation. The instructor will grade submitted assignments and will post grades for students within 10 days of assignment due date.

Virtual Classroom Citizenship

The same guidelines that apply to traditional classes should be observed in the virtual classroom environment. Please use proper netiquette when interacting with class members and the professor.

Rules of Engagement

Rules of engagement refer to the way students are expected to interact with each other and with their instructors. Here are some general guidelines:

- While the freedom to express yourself is a fundamental human right, any communication that utilizes cruel and derogatory language on the basis 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 will not be tolerated.
- Treat your instructor and classmates with respect in any communication online or face-to-face, even when their opinion differs from your own.
- Ask for and use the correct name and pronouns for your instructor and classmates.
- Speak from personal experiences. Use "I" statements to share thoughts and feelings. Try not to speak on behalf of groups or other individual's experiences.
- Use your critical thinking skills to challenge other people's ideas, instead of attacking individuals.
- Avoid using all caps while communicating digitally. This may be interpreted as "YELLING!"

- Be cautious when using humor or sarcasm in emails or discussion posts as tone can be difficult to interpret digitally.
- Avoid using “text-talk” unless explicitly permitted by your instructor.
- Proofread and fact-check your sources.
- Keep in mind that online posts can be permanent, so think first before you type. See these [Engagement Guidelines](https://clear.unt.edu/online-communication-tips) (https://clear.unt.edu/online-communication-tips) for more information.

Incompletes

This course will observe the UNT policy on incompletes, found here:

<http://registrar.unt.edu/grades/incompletes>

Add/Drop Policy

The University of North Texas Add Drop Policy for Fall 2017 can be found at the following link:

<http://registrar.unt.edu/registration/fall-add-drop>

Policy on Server Unavailability or Other Technical Difficulties

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 also contact the UNT Student Help Desk: helpdesk@unt.edu or 940.565.2324. The instructor and the UNT Student Help Desk will work with the student to resolve any issues at the earliest possible time.

Copyright Notice

Some or all of 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://copyright.unt.edu>.

Graduate Online Course Attendance Policy

Students are expected to participate actively each week and to meet all deadlines for course assignments as detailed in the Course Calendar. *Information about the University of Texas' Attendance Policy may be found at <http://policy.unt.edu/policy/15-2-5>*

Administrative Withdrawal

This course will observe the UNT policy on academic withdrawal found here:

<https://deanofstudents.unt.edu/withdrawals>

Syllabus Change Policy

Changes to the course syllabus or due dates are not anticipated but should they be necessary, the instructor will provide ample notification to students to allow them to complete assignments in a timely manner without penalty.

UNT GENERAL POLICIES**Student Conduct and Discipline:** [Student Handbook](#).

You are encouraged to become familiar with the University's Policy of Academic dishonesty found in the [Student Handbook](#). The content of the Handbook applies to this course. If you are in doubt regarding the requirements, please consult with me before you complete any requirements of the course.

The UNT Code of Student Conduct can be found here:

http://deanofstudents.unt.edu/sites/default/files/code_of_student_conduct.pdf

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 admonition to expulsion from the University.

ADA Policy

The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with an accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. ... Note that students must obtain a new letter of 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 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 see the Office of Disability Accommodation website at <http://disability.unt.edu/>. You may also contact them 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 and 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) (<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) (<https://it.unt.edu/eagleconnect>).

Student Evaluation Administration Dates

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. The survey will be made available during weeks 13, 14 and 15 of the long semesters to provide students with an

opportunity to evaluate how this course is taught. Students will receive an email from "UNT SPOT Course Evaluations via IASystem Notification" (noreply@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/) (<http://spot.unt.edu/>) or email spot@unt.edu.

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 2759.

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 at <http://www.oea.gov/index.php/links/electronic-code-of-federal-regulations>. The specific portion concerning distance education courses is located at "Title 8 CFR 214.2 Paragraph (f) (6) (i) (G)" and can be found buried within this document: <http://www.gpo.gov/fdsys/pkg/CFR-2012-title8vol1/xml/CFR-2012-title8-vol1-sec214-2.xml>

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.

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 940-5652195 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) (<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 of 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 of 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

Advanced Data Analytics – Toulouse Graduate School – University of North Texas

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 classes will be recorded for this class and possibly future classes for study purposes only.

Class Recordings & Student Likenesses

All the video recordings in this course, including lecture videos and live class activity recordings are for students enrolled in the 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.

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](https://studentaffairs.unt.edu/student-health-andwellness-center) (<https://studentaffairs.unt.edu/student-health-andwellness-center>)
- [Counseling and Testing Services](https://studentaffairs.unt.edu/counseling-and-testingservices) (<https://studentaffairs.unt.edu/counseling-and-testingservices>)
- [UNT Care Team](https://studentaffairs.unt.edu/care) (<https://studentaffairs.unt.edu/care>)
- [UNT Psychiatric Services](https://studentaffairs.unt.edu/student-health-and-wellnesscenter/services/psychiatry) (<https://studentaffairs.unt.edu/student-health-and-wellnesscenter/services/psychiatry>)
- [Individual Counseling](https://studentaffairs.unt.edu/counseling-and-testingservices/services/individual-counseling) (<https://studentaffairs.unt.edu/counseling-and-testingservices/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 don't 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) (<https://registrar.unt.edu/registration>)
- [Financial Aid](https://financialaid.unt.edu/) (<https://financialaid.unt.edu/>)
- [Student Legal Services](https://studentaffairs.unt.edu/student-legal-services) (<https://studentaffairs.unt.edu/student-legal-services>)
- [Career Center](https://studentaffairs.unt.edu/career-center) (<https://studentaffairs.unt.edu/career-center>)
- [Multicultural Center](https://edo.unt.edu/multicultural-center) (<https://edo.unt.edu/multicultural-center>)
- [Counseling and Testing Services](https://studentaffairs.unt.edu/counseling-and-testingservices) (<https://studentaffairs.unt.edu/counseling-and-testingservices>)
- [Pride Alliance](https://edo.unt.edu/pridealliance) (<https://edo.unt.edu/pridealliance>)
- [UNT Food Pantry](https://deanofstudents.unt.edu/resources/food-pantry) (<https://deanofstudents.unt.edu/resources/food-pantry>)

Academic Support Services

- [Academic Resource Center](https://clear.unt.edu/canvas/student-resources) (<https://clear.unt.edu/canvas/student-resources>)
- [Academic Success Center](https://success.unt.edu/asc) (<https://success.unt.edu/asc>)
- [UNT Libraries](https://library.unt.edu/) (<https://library.unt.edu/>)
- [Writing Lab](http://writingcenter.unt.edu/) (<http://writingcenter.unt.edu/>)

