

# GRADUATE STUDENT HANDBOOK

# **Advanced Data Analytics**Master of Science

College of Science

# Academic Year 2025-26

Data Analytics and Statistics College of Science University of North Texas General Academic Building (GAB), Room 115 1155 Union Circle #310930 Denton, TX 76203

analytics@unt.edu dataanalytics.unt.edu

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#### WELCOME TO THE DEPARTMENT OF DATA ANALYTICS AND STATISTICS

Thank you for choosing the Department of Data Analytics and Statistics to achieve your educational and career goals.

It remains an exciting time to be pursuing a career in data analytics. The rapid advances in technology, artificial intelligence, data collection & analysis are changing the way we perform our jobs and live our lives. Combining the knowledge and skills you will learn in the ADTA program with domain experience will make you a highly valuable professional.

In the ADTA program, you will be at the forefront of the exciting advances in analytics. Our curriculum is designed to equip you with the knowledge and skills needed to harness the power of data, uncover insights, and recommend informed decisions. Our courses are regularly updated to reflect industry trends. Likewise, we have added new concentrations, such as Applied Artificial Intelligence and Analytics Project Management, to better prepare you to be leaders in the field.

A distinguishing characteristic of the DAST department is our commitment to our students. Our faculty are not only experts in their fields but also dedicated mentors who are invested in your success. They are here to guide you, challenge you, and inspire you!

We are also proud of our strong partnerships with leading businesses, giving you the opportunity to work with real-world datasets and interact with analytics professionals. This hands-on experience will not only sharpen your technical skills but also provide you with insights into solving the challenging problems faced by industries today.

We are honored to be alongside you during your journey through the field of data analytics.

Sincerely,

Michael Monticino, PhD Chair, Department of Data Analytics and Statistics

#### **MASTER OF SCIENCE DEGREE PLAN**

During the first semester of enrollment and in consultation with the graduate academic advisor, each student should complete a degree plan as required by the Toulouse Graduate School. Once approved by the Graduate School, the student is admitted to candidacy for the master's degree. After the degree plan has been filed, changes may be made if approved by the graduate academic counseloradvisor. Deviations from the degree plan without the written approval of the graduate academic counseloradvisor may result in those classes not being applied to your graduate degree.

The Degree Plan must include all courses the student needs to take in fulfillment of the degree requirements. The graduate academic advisor must approve all coursework including course substitutions, transfer credit, and electives.

Undergraduate courses may not be used toward a graduate degree. As courses are completed, the term in which they are taken and the grade will be added to the degree plan to indicate satisfactory completion of required courses and approved electives. Please review the Sample Degree Plan included in the appendix as an example. If any changes in coursework occur, the student must have them approved by the graduate academic courseloradvisor.

Students should select elective courses that complement their area of professional interest and/or fulfill the requirements of a specialization. Electives are selected with the advice and approval of the graduate academic advisor.

The M.S. in Advanced Data Analytics is a 30-hour degree, consisting of 7 core courses (21 credit hours) and 3 electives (9 credit hours). All core classes are offered in Denton, Frisco, and online in the fall and spring semesters. Summer courses include most core classes as well.

#### Core Courses (general degree option)

•	ADTA 5130	Data Analytics I
•	<b>ADTA 5230</b>	Data Analytics II
•	<b>ADTA 5240</b>	Harvesting, Storing and Retrieving Data
•	<b>ADTA 5250</b>	Large Data Visualization
•	<b>ADTA 5340</b>	Discovery and Learning with Big Data
•	<b>ADTA 5410</b>	Applications and Deployment of Advanced Analytics
•	<b>ADTA 5940</b>	Analytics Capstone Experience

#### **Core Courses with Concentrations**

#### Core courses (18 credit hours) with a concentration

•	ADTA 5130	Data Analytics I
•	<b>ADTA 5230</b>	Data Analytics II
•	<b>ADTA 5240</b>	Harvesting, Storing and Retrieving Data
•	<b>ADTA 5340</b>	Discovery and Learning with Big Data
•	<b>ADTA 5410</b>	Applications and Deployment of Advanced Analytics
•	ADTA 5940	Analytics Capstone Experience

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By combining your 18 hours of core course work with a pre-defined 12-hour concentration, you increase your knowledge and skills in a specific area of interest.

Current areas of specialization include:

# Analytics Project Management (12 hours) - online option

- ADTA 5810 Managing Analytics Projects
- ADTA 5820 Analytics Leadership and Communication
- ADTA 5830 Risk Management and Value Creation for Analytics
- ADTA 5840 Agile Frameworks for Analytics

#### Applied Artificial Intelligence (12 hours)

- <u>ADTA 5550</u> Deep Learning with Big Data
- ADTA 5560 Recurrent Neural Networks
- ADTA 5750 Applied Natural Language Processing
- ADTA 5760 Natural Language Processing with AI

#### Digital Retailing Concentration (12 hours) - online option

- MDSE 5240 Global Retailing
- MDSE 5710 Digital Optimization
- MDSE 5750 Digital Retailing

#### and choose one:

- CMHT 5440 Consumer Theory
- CMHT 5600 Managing Customer Experiences

#### **Geographic Information Systems (12 hours)**

Choose 4 options from the list below:

- GEOG 5510 GIS for Applied Research
- GEOG 5525 LiDAR Data Analysis in GIS
- GEOG 5530 Digital Image Analysis
- GEOG 5540 Enabling Business Intelligence using Enterprise GIS
- GEOG 5560 Application Development with Python
- GEOG 5590 Advanced GIS Programming

# Geospatial Intelligence (12 hours)

Choose 4 options from the list below:

- GEOG 5190 Spatial Statistics and Geographic Data Analysis
- GEOG 5195 Advanced Geospatial Data Analytics
- GEOG 5220 Applied Retail Geography
- GEOG 5230 Location Intelligence: Advanced Business GIS Concepts and Applications
- GEOG 5510 GIS for Applied Research
- GEOG 5540 Enabling Business Intelligence Using Enterprise GIS
- GEOG 5580 Advanced GIS Methods in Health

#### Health Data Analytics Concentration (12 hours) - online option

- HLSV 5300 Information Systems for Healthcare Management
- HLSV 5450 Health Services Administration
- HLSV 5500 Healthcare Quality Management
- HLSV 5740 Financial Issues in Health Services Administration
- HLSV 5820 Marketing Health Services
- HLSV 5880 Healthcare Law and Ethics

# Management Concentration (12 hours) - accelerated online option

- MGMT 5140 Organizational Behavior and Analysis
- MGMT 5760 Strategic Management
- MGMT 5870 Leadership Research and Development

#### and choose one:

- MGMT 5120 Managing Organizational Design and Change
- MGMT 5300 Entrepreneurship and Venture Management

#### **Statistics Concentration (12 hours)**

- ADTA 5610 Applied Probability Modeling for Data Analytics
- ADTA 5620 Applied and Computational Statistics for Data Analytics

#### plus two of the following:

•	<b>BIOL 5130</b>	Biostatistics I
•	<b>BIOL 5140</b>	Biostatistics II
•	<b>BIOL 5810</b>	Biocomputing
•	<b>BIOL 5820</b>	Computational Epidemiology
•	<b>ECON 5645</b>	Empirical Linear Modeling
•	<b>ECON 5660</b>	Time Series Econometrics and Forecasting
•	GEOG 5195	Advanced Geospatial Data Analytics

MATH 5700 when taught as a Bioinformatics course.

#### Internship

Students may choose to complete an internship as part of their degree program. To be eligible for an internship, international students must have completed two long semesters. All internships must be approved by the program advisor. Students must have completed 18 semester credit hours to be eligible. International students must submit the required paperwork to the International Student and Scholar Services office. For an internship to be included on your degree plan and transcripts, students must be enrolled in ADTA 5920 ADTA Internship. This course requires the students to submit monthly work/project summaries and be monitored by the faculty member that is assigned to the course for that semester.

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#### **Degree Plan Submission**

Official degree plans must be submitted to Toulouse Graduate School prior to applying for graduation. Students that do not have an official degree plan on file will need to have one submitted as soon as possible. International students applying to be less than full time for their final semester must have an official degree plan on file as well.

#### **Transfer Credit**

Up to 6 credit hours (generally 2 classes that are 3 credit hours each) can be accepted in transfer. Transfer credit must be graduate level work completed with a grade of 'A' or 'B' that will not be more than 5 years old at the time of graduation. Credits older than 5 years or grades of 'C' or lower will not be used. Student's must submit an official transcript to the Registrar's office for transfer credit to be considered.

#### **COURSE DESCRIPTIONS**

#### **Core Courses**

ADTA 5130 - Data Analytics I. Provides an overview of quantitative methods essential for analyzing data, with an emphasis on business and industry applications. Topics include identification of appropriate metrics and measurement methods, descriptive and inferential statistics, experimental design, parametric and non-parametric tests, simulation, and linear and logistic regression, categorical data analysis, and select unsupervised learning techniques. Standard and open-source statistical packages are used to apply techniques to real-world problems.

Prerequisite(s): MATH 1100 or MATH 1680 or equivalent, or ADTA 5100.

**ADTA 5230 - Data Analytics II.** 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, text analysis and machine learning methods are explored and implemented with real-world business and industry data. Provides a hands-on introduction to state-of-practice technology and tools. Focus is on the application and interpretation of the methods discussed. Prerequisite(s): ADTA 5130 or consent of instructor.

ADTA 5240 - Harvesting, Storing and Retrieving Data. Provides an introduction to collecting, storing, managing, retrieving and processing datasets. Techniques for large and small datasets are considered, as both are needed in data science applications. Traditional survey and experimental design principles for data collection as well as script-based programming techniques for large-scale data harvesting from third party sources are covered. Data wrangling methodologies are introduced for cleaning and merging datasets, storing data for later analysis, and constructing derived datasets. Various storage and process architectures are introduced with a focus on how approaches depend on applications, data velocity and end users. Emphasizes applications and includes many hands-on projects.

Prerequisite(s): None.

**ADTA 5250 - Large Data Visualization.** Presents strategies and methods for effective visualization and communication of large data sets. Standard and open-source data visualization packages are used to develop presentations that convey findings, answer business questions, drive decisions and provide persuasive evidence supported by data. Prerequisite(s): None.

**ADTA 5340 - Discovery and Learning with Big Data.** Examines the latest methods for discovery and learning from large data sets. Emphasizes applications of predictive and pattern recognition techniques in making business, policy, and allocation decisions. Topics complemented by hands-on projects using data discovery and statistical learning software. Prerequisite(s): None.

**ADTA 5410 - Applications and Deployment of Advanced Analytics**. Application of advanced analytics to case study projects designed to provide experience in solving complex industry and business problems, determining solutions that address project objectives, selecting appropriate methods among various possible alternatives, applying techniques and technology in real-world settings, and attaining proficiency in the deployment of analytics, including professional communication.

Prerequisite(s): ADTA 5130, ADTA 5230, and either ADTA 5240 or ADTA 5340.

ADTA 5940 - Analytics Capstone Experience. Open to all students seeking an analytics capstone course. This unique learn-by-doing course is offered in lieu of a project, portfolio, or thesis for candidates of the MS Advanced Data Analytics degree. Requires a significant project about which students periodically report, highlighting the interdisciplinary nature of their findings and its relevance to their interests and/or career goals. Students and peers discuss how their ongoing effort enriches and advances the human condition. Submission of a final paper and presentations are required for successful completion.

Prerequisite(s): Completion of required 18 hours of Advanced Data Analytics core courses toward degree; consent of instructor.

#### **Elective Courses**

**ADTA 5100 - Fundamentals of Data Analytics.** Introduces fundamental statistical concepts, data analysis methods and data management systems. Students use familiar tools to prepare data for analysis and practice techniques associated with exploratory data analysis, interpretation of results and communicating the significance of their analysis. Knowledge and skills gained in this course prepare students for more advanced analytics and programing courses.

Prerequisite(s): None.

**ADTA 5550 - Deep Learning with Big Data.** Introduction to fundamentals of artificial neural networks with big data applications. Theory and implementation of deep learning techniques to obtain solutions to business, industry, and science problems. Applications of deep learning frameworks and libraries.

Prerequisite(s): ADTA 5240, or ADTA 5250, or ADTA 5340.

ADTA 5560 - Recurrent Neural Networks for Sequence Data. Fundamentals and practical implementations of Recurrent Neural Networks, focusing on Long Short-Term Memory (LSTM) networks. Emphasis on applying current AI frameworks to build artificial neural networks for deep learning solutions to problems in business, industry, and science. The course provides the student with a guide through how to use TensorFlow and Keras, the two most popular AI frameworks at present, to build artificial neural networks for deep learning that will be trained on the sequence data of which time series is one example. Covers both the theory and the practical implementation of the AI network. As the fundamentals are discussed, exemplary AI techniques will be employed to illustrate how AI deep learning theories can be applied to real-world solutions using various programming and system tools.

Prerequisite(s): One of the courses: ADTA 5240, or ADTA 5250, or ADTA 5340, or ADTA 5550, or consent of instructor.

ADTA 5610 – Applied Probability Modeling for Data Analytics. Introduction to fundamental concepts and methods of probability modeling, emphasizing applications and simulation. Topics include probability axioms and models, conditional probability, independence, discrete and continuous random variables, law of large numbers, central limit theorem, and stochastic processes. Concepts are applied to develop and simulate models to solve important problems in business, industry, and science, using real-world data to inform model development. Prerequisite(s): Undergraduate probability or statistics course, or ADTA 5130, or consent of instructor.

ADTA 5620 - Applied and Computational Statistics for Data Analytics. Introduces fundamental concepts of contemporary statistics with an emphasis on applications and computational methods. Topics include classical inference and related numerical optimization methods; Bayesian inference and Monte Carlo methods for density estimation; jackknife, bootstrap, and related nonparametric methods for assessing statistical accuracy, obtaining linear regression solutions, and performing hypothesis tests; estimation of functions. Focuses on applications of statistical methods to addressing important problems in business, science, and industry.

Prerequisite(s): ADTA 5610, equivalent probability course, or consent of instructor.

**ADTA 5630 - Advanced Statistical Analysis for Experiments.** Develops principles, key concepts, and advanced techniques for statistical analysis of experimental and survey data. Emphasizes the collection, presentation, analysis, and interpretation of data in the healthcare, social and behavioral sciences, marketing, and finance. Prerequisite(s): ADTA 5130 or equivalent

**ADTA 5640 - Time Series Analysis with Machine Learning.** Develops time series analysis methods from a machine learning and artificial intelligence perspective. Practical applications with real world data sets are used to illustrate the techniques presented. Prerequisite(s): ADTA 5130, ADTA 5230

**ADTA 5650 - Operations Analytics 1.** Introduces quantitative methods to model, analyze and support decisions for complex business and industry problems. Fundamental optimization methods are developed and applied to solve business problems using a variety of software tools.

Prerequisite(s): MATH 1710, MATH 1720, ADTA 5610, or equivalent courses.

**ADTA 5660 - Operations Analytics 2.** Develops advanced quantitative methods to model, simulate, analyze, and support decisions for complex business and industry problems involving uncertainty. Topics include decision tree analysis, Markov process models, and queueing theory. Simulation and modeling software tools are introduced and applied to solve real-world problems.

Prerequisite(s): MATH 1710, MATH 1720, ADTA 5610, ADTA 5650, or equivalent courses.

ADTA 5750 – Applied Natural Language Processing. introduces fundamentals of Natural Language Processing (NLP), providing a guide to applying novel and pre-trained NLP systems in business and other real-world environments. Presents contemporary methods and tools used to perform a variety of language-related analysis, such as text understanding and text classification, in a low-code development environment. Emphasizes the practical implementation of Natural Language Processing methods to solving business, industry and science problems.

Prerequisite(s): ADTA 5340, ADTA 5550, ADTA 5560, or consent of instructor.

ADTA 5760 – Natural Language Processing with Artificial Neural Networks. Introduces theory and the practical implementation of Natural Language Processing (NLP) using artificial neural networks. Provides experience applying current neural network frameworks to build, train, and test NLP models. Emphasizes the practical implementation of Al techniques to develop NLP solutions for business, industry, and science applications.

Prerequisite(s): ADTA 5340, ADTA 5550, ADTA 5560, or consent of instructor.

**ADTA 5810 – Managing Analytics Projects.** Introduces project management principles and concepts, providing a foundation for managing data analytics projects effectively. Addresses project management knowledge areas, roles and responsibilities of analytics teams, and agile practices to facilitate the production of industry-standard artifacts. Prerequisite(s): None.

**ADTA 5820 – Analytics Leadership and Communication.** Develops an understanding of the theory and practice of leadership in organizational settings commonly encountered by analytics professionals. Develops and practices persuasive communication methods essential for effective leadership of analytics teams.

Prerequisite(s): None.

**ADTA 5830 – Risk Management and Value Creation for Analytics.** Examines policies, practices, regulations, and governance for analytics projects to reduce risk and create value. Provides an understanding of how to identify and manage risk and maintain value through quality and procurement management and stakeholder engagement. Prerequisite(s): None.

**ADTA 5840 – Agile Frameworks for Analytics.** Examines Agile frameworks and practices for analytics teams and projects. Facilitates the development of an Agile mindset and focuses on how to create business value through the values and principles of Agile. Prerequisite(s): None.

#### **ADVISING**

Prior to enrolling in the first semester, students should consult with the ADTA graduate academic counselor for assistance in course selection. Prior to enrolling in the first semester, students should consult the DAST graduate academic advisor for course selection assistance. Students should meet with a graduate academic counseloradvisor every semester to be advised on the next semester's coursework. Students are encouraged to be in regular contact with the graduate academic counseloradvisor to provide updates and seek advice on appropriate classes. Students are responsible for initiating these meetings.

The graduate academic counseloradvisor acts as the official advisor for students. Students who seek to complete one of the program's specializations may want to discuss the courses with the primary course instructors.

#### REGISTRATION PROCEDURES

All of our courses are open enrollment, except for the ADTA 5940 capstone class.

- 1. For instructions on enrolling, dropping, swapping, and reviewing enrollment transactions, use the following website:
  - How to Register | University of North Texas (unt.edu)
- Registration Calendars, Schedule of Classes, and Academic Catalogs can be found through the Office of the Registrar.

Office of the Registrar | University of North Texas (unt.edu)

#### **REGISTRATION ISSUES**

#### **Enrollment Dates**

If you attempt to register and receive an error that reads "You do not have a valid appointment at this time," then you are not allowed to register during that timeframe. Please refer to the Registration Calendar for the date you can enroll in courses.

# **Payment Deadlines**

If you do not pay balances due or set up a payment plan by the payment deadline, you will be dropped from your classes. Please check the Student Financial Services calendar for important dates regarding payment deadlines.

# Student Status

If you have not registered for a class in over one academic year, then you are no longer an active student and you must reapply to the graduate school. This takes several weeks so

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please, if this applies to you, re-apply as soon as possible. Please note that you will be required to pay the \$75 application fee.

#### **Account Holds**

If you attempt to register and receive an error that reads "You have a hold on your record," then you need to check the To-Do items in your student center to address the issue. If the hold is due to academic advising, you will need to meet with the graduate advisor and then the hold will be removed.

Please do not wait until the last minute to register. Contact <u>athe</u> Graduate Academic <u>CounselorAdvisor</u> or the Registrar if you have problems registering.

#### **Time Limitation**

Graduate coursework will expire after 5 years. Therefore, students must finish their degree before the 5-year mark. If a course has expired before a student has graduated, the student will need to retake the course for it to count toward their degree. This 5-year rule also applies to any transfer work accepted.

#### Leave of Absence

Leave of absence applies to students admitted to the master's degree who wish to discontinue work toward the degree for a specified period due to exigent circumstances. Leave of absences may be granted by the academic program, which then notifies Toulouse. If approved, the leave of absence may "stop the clock" on the time limit for the degree of master's for a maximum of three terms (excluding summer). Degree requirements and graduation must be completed within the appropriate time limit for completion of the degree. For LOA procedures and forms, review Toulouse's Leave of Absence.

#### **GRADUATION**

Students must have an approved degree plan on file when they apply for graduation. It is not enough to complete your coursework, you must apply for graduation using your My.UNT.EDU student portal account. In addition to the approved degree plan, to be eligible to graduate, students must have a cumulative GPA of at least 3.0 and have a grade of B or higher in the capstone course. Failure to meet both of those requirements will prevent you from graduating and receiving a diploma. To ensure that you apply for graduation before the deadline, visit the Graduation Information page on the Toulouse Graduate School website. Additional questions regarding your student status and graduation requirements can be answered by the DAST Graduate Academic Advisor.

Toulouse Graduate School Graduation Information

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# ACADEMIC RIGHTS AND RESPONSILITIES ADTA PROGRAM POLICIES

#### **Absence Verification Policy**

- Students must provide the Dean of Students with official and verifiable documentation related to the reason for absence.
- Once the justification for absences has been verified the decision to allow a student to make up course work is left to the discretion of faculty and the DAST Department.

#### **Excused Absences**

- 1. An absence may be excused for the following reasons
  - a. religious holy day, including travel for that purpose
  - b. active military service, including travel for that purpose
  - c. participation in an official university function
  - d. illness or other extenuating circumstances
  - e. pregnancy and parenting under Title IX
  - f. when the University is officially closed.
- A student is responsible for requesting an excused absence in writing, providing satisfactory evidence to the faculty member to substantiate excused absence and delivering the request directly to the faculty member assigned to the course for which the student will be absent.
- When an absence is excused, the faculty member will provide a reasonable time after the absence for the student to complete an assignment or examination missed. A reasonable time is noted as no fewer than 10 days.
- 4. Faculty members are required to find a fair resolution if a student missed an examination or assignment on days when the university is officially closed.
- 5. A student will not be penalized for an excused absence and will be allowed to take an examination or complete an assignment from which the student is excused within a reasonable period after the absence. A reasonable time is noted as no fewer than 10 days.
- 6. A student needing assistance verifying absences due to illness or extenuating circumstances for all courses should contact the Dean of Students Office. The Dean of Students Office will verify the student's documentation and advocate on the student's behalf, as appropriate, to instructors for excused absences.

Student Attendance and Authorized Absences Policy can be referenced here: <a href="https://policy.unt.edu/sites/default/files/06.039%20Student%20Attendance%20and%20Authorized%20Absences.pdf">https://policy.unt.edu/sites/default/files/06.039%20Student%20Attendance%20and%20Authorized%20Absences.pdf</a>.

#### International office guidelines

For F1 and J1 visa holders, there are two types of travel scenarios that may occur within the semester. UNT-I views things in terms of academic requirements and Immigration requirements.

Travel home for a short time and return within the same semester (student remains enrolled).

- Immigration: Student needs to make sure that they have a valid passport, visa, and a
  valid travel signature on their immigration document (I-20 or DS-2019). We have some
  information on our website for students here https://international.unt.edu/content/traveland-us-entry, but the main information is at the bottom under the "Continuing Students –
  Know Before You Go" section.
- Academic: Student needs to communicate with their department regarding attendance/assignment requirements.

Withdraw from all classes to return home after the start of the semester.

- Immigration: Complete the Ending Studies at UNT form via iNorthTX. This step must be
  completed first, and the student should not drop any classes until their Ending Studies
  form has been approved by our department. Dropping before this process is completed
  may be considered a violation of good immigration status, so it's important that they do
  this first. (They should have a drop hold on their account from our office to prevent this
  from happening, but just FYI.)
- Academic: Work with the department and Dean of Students Office to complete the withdrawal from classes.

# **Policy on Disability Accommodation**

The Data Analytics and Statistics department, in cooperation with the UNT Office of Disability Accommodation, complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with disabilities. Please present your written accommodation request to the instructor during regular office hours before the 12th class day of regular semesters (4th class day of the summer sessions).

#### **ADA Policy**

UNT 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 a student with an accommodation letter to be delivered to faculty to begin a private discussion regarding one's

specific course needs. Students may request accommodations at any time; however, ODA notices of 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 accommodation for every semester and must meet with each faculty member prior to implementation in each class. For additional information see the ODA website (https://disability.unt.edu/).

#### 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.

#### **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 based on 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 nonconfidentially reported to the Title IX Coordinator at oeo@unt.edu or at (940) 565 2759.

#### **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.

# Policy on Laptops and Cell Phones in the Classroom

The classroom setting at an institution of higher learning is intended to serve as a venue that permits the transfer of knowledge and facilitates the sharing of ideas. As such, it is imperative that any distractions from these stated objectives be avoided and kept to a minimum. Potential disruptions include modern electronic devices such as laptop computers and cell phones.

Students are allowed to take notes on personal laptop computers to enhance the learning process. Additionally, many instructors will encourage you to use your laptop to view lecture notes on Canvas, practice techniques being taught as part of the course curriculum, or take impromptu quizzes in class. However, students should refrain from using their in class technology for anything other than activities related to the course. Students should refrain from answering cell phones in class.

Exceptions to this policy will be at the discretion of the faculty only and may occur if searching the Internet is necessary to find additional information or facts related to the subject being covered on that day.

#### Policy on Student Behavior in the Classroom

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 Center for Student Rights and Responsibilities 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. The Code of Student Conduct can be found at <a href="https://www.unt.edu/csrr">www.unt.edu/csrr</a>.

# **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 faceto-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'sindividuals' 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.

#### PROBATION, SUSPENSION, AND DISMISSAL

Graduate students must maintain a minimum cumulative grade point average (CGPA) of 2.6 in the initial term of enrollment and a CGPA of 3.0 in all subsequent terms to remain in good academic standing.

A graduate student is placed on academic probation at the end of the initial period of enrollment if the CGPA drops below 2.6. A graduate student is placed on academic probation at the end of any subsequent term in which the CGPA falls below a 3.0.

A graduate student who is placed on academic probation and who does not receive either a semester or a cumulative 3.0 graduate GPA during the term/semester of probation will be subject to academic suspension for a period of up to one calendar year before becoming eligible to reapply for graduate admission (see "Readmission of Graduate Students" in the Admission section) and enroll for further graduate courses. After the one-year period of suspension, students may re-enroll in graduate courses under probation. Students who are then suspended a second time without having returned to good academic standing by achieving a CGPA of 3.0 or better will be dismissed from the university. Programs are not required to readmit students who left the university on probation or suspension and reapply.

Students that are placed on suspension due to academic integrity violations will not be allowed to register\_-forin ADTA courses for one year. Students that who receive three academic integrity violations will be dismissed from the program.

#### **COURSE DUPLICATION POLICY**

A student may take a course a second or subsequent time. Students may duplicate graduate courses for grade replacement. The Registrar's Office will post duplications at the request of the student, at the request of an academic advisor, or upon review of the student's record. Once a duplication is processed, only the second grade received is included in the student's cumulative hours attempted and grade points earned. A single course may only be repeated once for grade replacement. Departments may submit to the Toulouse Graduate School a request for an exception to duplication processing based on extenuating circumstances.

Per policy in the Department of Data Analytics & Statistics, students in our masters degree program may duplicate only two graduate courses in which they received a grade of C or lower, for grade replacement. Students in our graduate certificate programs may duplicate only one graduate course in which they received a grade of C or lower for grade replacement.

# **INCOMPLETE POLICY**

Students can be granted a grade of incomplete for a course in extenuating circumstances. This grade will allow the student to complete course work past the end of the semester without having to reenroll in the course. Students must discuss this option with the instructor. The instructor has the final say whether an incomplete will be issued for the student. Once a student has been given an incomplete, they will work with their instructor to complete the missing work for the course. Students will have one calendar year to complete the work for course. After one year, the incomplete will automatically be changed to an F.

# **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

Every student must read and adhere to the university's, DAST department's, and course Academic Integrity expectations. The consequences of violating Academic Integrity expectations are outlined below.

# **Data Analytics and Statistics Academic Integrity Policy**

	Penalty	Other
1 <sup>st</sup> 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.
2 <sup>nd</sup> Academic Integrity Offense Suspension from the DAST 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 DAST 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 DAST program.
3 <sup>rd</sup> Academic Integrity Offense	Dismissal from the DAST program.	Students committing a 3 <sup>rd</sup> 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 DAST program.

#### **Definitions**

Academic Misconduct "Academic Misconduct" means the intentional or unintentional action by a student to engage in behavior in the academic setting including, but not limited to: cheating, fabrication, facilitating academic misconduct, forgery, plagiarism, and sabotage.

The UNT Code of Student Conduct and Discipline defines cheating and plagiarism as follows:

Cheating includes, but is not limited to:

- a. copying or any unauthorized assistance in taking guizzes, tests, or examinations;
- b. dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments;
- c. the acquisition, without permission, of tests or other academic material belonging to a faculty member, staff member, or student of the university;
- d. dual submission of a paper or project, or resubmission of a paper or project to a different class without express permission from the instructor(s);
- e. any other act designed to give a student an unfair advantage.

Plagiarism includes, but is not limited to:

- a. the knowing or negligent use by paraphrase or direct quotation of the published or unpublished work of another person without full and clear acknowledgment,
- b. the knowing or negligent unacknowledged use of materials prepared by another person or by an agency engaged in the selling of term papers or other academic materials.

Normally, the minimum penalty for cheating or plagiarism is a grade of "F" in the course. In the case of graduate departmental exams, the minimum penalty shall be failure of all fields of the exam. Determination of cheating or plagiarism shall be made by the instructor in the course, or by the departmental faculty in the case of departmental exams.

Cases of cheating or plagiarism on graduate departmental exams, problem papers, theses, or dissertations shall automatically be referred to the departmental Curriculum and Degree Programs Committee. Cases of cheating or plagiarism in ordinary course work may, at the discretion of the instructor, be referred to the Curriculum and Degree Programs Committee in the case of either graduate or undergraduate students. This committee, acting as an agent of the Department, shall impose further penalties, or recommend further penalties to the Dean of Students, if they determine that the case warrants it. In all cases, the Dean of Students shall be informed in writing of the case.

Notice of the cheating and plagiarism policy shall be provided in all public administration classes each semester, and written copies shall be available in the Public Administration office.

# **Appeals**

Students may appeal any decision under this policy by following the procedures laid down in the UNT Code of Student Conduct. Academic dishonesty matters begin within the academic department. The faculty member who believes a student to be guilty of academic dishonesty shall provide the student with the opportunity for a hearing, after which, if still convinced that academic dishonesty has taken place, he/she may assign a sanction (see the departmental policy above). Acceptance of the faculty member's sanction by the student shall make the penalties final and constitute a waiver of further administrative procedures. Once an academic sanction has been assigned, the faculty member shall so inform the Center for Student Rights and Responsibilities, which will make the documentation part of a disciplinary file and may assign additional non-academic sanctions.

Should the student believe he/she has been treated unfairly, he/she may submit an appeal. The student must submit a letter of appeal to the chairperson of the committee within 72 hours of the decision made by the Center for Student Rights and Responsibilities. The department has 10 days to review the appeal and submit a final decision.

The Code of Student Conduct and the appeals procedure can be viewed at the website of Center for Student Rights and Responsibilities <a href="https://www.unt.edu/csrr/purpose.htm">www.unt.edu/csrr/purpose.htm</a>.

# **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 (<a href="https://studentaffairs.unt.edu/student-health-and-wellnesscenter">https://studentaffairs.unt.edu/student-health-and-wellnesscenter</a>)
- Counseling and Testing Services (<a href="https://studentaffairs.unt.edu/counseling-and-testing-services">https://studentaffairs.unt.edu/counseling-and-testing-services</a>)
- UNT Care Team (https://studentaffairs.unt.edu/care)
- UNT Psychiatric Services (<a href="https://studentaffairs.unt.edu/student-health-and-wellnesscenter/services/psychiatry">https://studentaffairs.unt.edu/student-health-and-wellnesscenter/services/psychiatry</a>)
- Individual Counseling (<a href="https://studentaffairs.unt.edu/counseling-and-testingservices/services/individual-counseling">https://studentaffairs.unt.edu/counseling-and-testingservices/services/individual-counseling</a>)

#### **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.

# **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://studentaffairs.unt.edu/career-center)
- Multicultural Center (https://edo.unt.edu/multicultural-center)
- Counseling and Testing Services (<a href="https://studentaffairs.unt.edu/counseling-and-testing-services">https://studentaffairs.unt.edu/counseling-and-testing-services</a>)
- Pride Alliance (https://edo.unt.edu/pridealliance)
- UNT Food Pantry (https://deanofstudents.unt.edu/resources/food-pantry)

#### **Academic Support Services**

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

#### **Technical support**

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:

Phone: 940-565-2324 Email: helpdesk@unt.edu

For a current list of the Student Help Desk hours, please see <a href="https://www.unt.edu/helpdesk/hours/">https://www.unt.edu/helpdesk/hours/</a>)

For additional support, visit this Canvas Technical Help web page.

#### **APPENDIX**

#### **Tips for Academic Success**

- Take responsibility and ownership for your success. Be an active learner! Ask a lot of questions, keep up with readings, seek support when needed.
- Prioritize your education. Consider the rigor of graduate work and assess what you are able
  to do each semester. Commit only to courses and experiences that you are able to
  prioritize without overextending yourself.
- Become familiar with available resources. Use office hours, get to know your instructors and your advisor well, be aware of all of the resources UNT has to offer students.
- · Know university, department, and program policies and procedures
- Think ahead plan early and plan often. Map out a semester-by-semester plan to complete
  your graduate coursework (with your advisor), consider requirements for licensure in the
  state in which you plan to reside.
- · Communicate with your instructors and advisor. They want to see you succeed!
- Join professional associations and attend conferences whenever possible. Begin developing your professional identity
- · Be flexible

#### **Tips for Personal Success**

- Take advantage of opportunities for personal growth in your classes, learning more about yourself will aid you in becoming a better counselor.
- Connect with friends in the program, you will lean on them for personal and professional support, and work to maintain connections with family and friends outside of the program. Involve family and friends in your growth where appropriate.
- Balance your lifestyle by attending to physical activity, self-care, and good nutrition, and
  try to engage in hobbies or leisure activities at least once a week. Seek support when
  needed; sometimes this might be your own counseling
- Be flexible and open to new ideas and perspectives



# **MS Data Analytics and Statistics**

# Toulouse Graduate School University of North Texas

Name (Last, First)		ID#	
Email		Phone #	
Address			
City/State/Zip		Country	
Degree Plan Start		Degree Plan Expiration	
Advisor	Denise R Philpot, PhD		

# **Core Courses**

Course	Semester	Grade	Credits
ADTA 5130 Data Analytics 1			3
ADTA 5230 Data Analytics 2			3
ADTA 5240 Harvesting, Storing, and Retrieving Data			3
ADTA 5250 Large Data Visualization			3
ADTA 5340 Discovery and Learning with Big Data			3
ADTA 5410 Applications & Deployment of Advanced Analytics			3
ADTA 5940 Capstone			3

### Electives / Concentration

Course	Semester	Grade	Credits
Elective 1			3
Elective 2			3
Elective 3			3
TOTAL HOURS COMPLETED (30 required for degree)			

I acknowledge receipt of this degree plan. Any courses I take that have not been approved by my advisor may not be counted toward my degree.

Student Signature	Date
Advisor Approval Signature	Date
To be completed by Dean of the Graduate School This student is admitted to	candidacy
Signature	Date