ADTA 5230 Data Analytics II / IPAC 4230 Data Analytics and Computational Statistics 2

Thursdays, 2:30-4:20 pm. Physical Education Building, Room 216

Instructor Contact

Name: Denise R. Philpot, PhD
Office Location: Hickory Hall 154
Office Hours: Wednesdays, 1:00 pm – 4:00 pm; Thursdays 10:00 am-12:00 pm; Fridays 2:00-4:00 pm; Students are encouraged to request an appointment; virtual meetings are available
Email: Denise.Philpot@unt.edu

About the Professor / Instructor

Welcome to ADTA 5230 Data Analytics II. I am Dr. Denise Philpot, the instructor for this course and the Advanced Data Analytics program advisor. Together with my colleagues, we are committed to providing an educational experience that is relevant, rigorous, and provides you with the knowledge and skills necessary to be successful in the world of big data/data science/data analytics. Prior to earning my doctoral degree in Applied Technology and Performance Improvement with a minor in Management Science, I was a systems analyst/customer account manager for Xerox Corporation. I left industry after 20 years to teach high school business courses. I earned my MBA in Organizational Behavior/Human Resource Management to increase my depth of knowledge while teaching a variety of dual-credit high school courses. I have not followed the traditional academic path and believe my variety of career and academic experiences help me to bring real life perspectives to our course discussions.

I am excited to have you in this course and look forward to learning more about you and your career goals. We will explore a variety of statistical analysis tools, learn about how and when to use them, interpret the outputs of the analysis, and describe the results in ways that will help us or others take appropriate actions to achieve the desired outcomes or goals. Together we will do great things!

Communication Expectations: The preferred way to contact me is via email (not the Canvas email tool) or a message in Teams if I am online and available. I do not have a campus office so you cannot just stop by to ask questions, but I am happy to chat with you on Teams or set up a virtual meeting. Emails will be answered as quickly as possible, usually in one business day or less. I understand that most graduate students work on assignments on the weekends so I will check email and Saturdays and Sundays as well. Urgent matters will be answered before Monday. When sending an email, please include the course section you are in as I teach several sections of this course. If I have not responded within one business day, please resend your message as student emails occasionally are routed to the junk folder. I expect emails to follow professional etiquette standards as these are formal communications between the
instructor and the student. If your email is related to a course activity/assignment, please attach appropriate files or include screenshots. Please visit our [Online Communication Tips](https://clear.unt.edu/online-communication-tips) for general guidelines to assist you in your online communications.

Welcome to UNT!

As members of the UNT community, we have all made a commitment to be part of an institution that respects and values the identities of the students and employees with whom we interact. UNT does not tolerate identity-based discrimination, harassment, and retaliation. UNT’s full Non-Discrimination Policy can be found in the UNT Policies section of the syllabus.

Course Description

**ADTA 5230** - This course extends the concepts developed in Data Analytics 1 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. The course will provide a hands-on introduction to state-of-practice technology and tools. The focus of the course is on the application and interpretation of the methods discussed.

**IPAC 4230** – Contemporary techniques of multivariate analysis, including association rules, classification methods, time series, text analysis, and machine learning methods with an emphasis on applications in science and industry. Introduction to state-of-practice computational statistical and data analysis methods and tools.

Course Structure

This is a 16-week in-person course. We will meet in the classroom for about two hours and then will meet virtually as necessary to ensure all course content and assignments are effectively shared. All virtual class meetings will be recorded and posted to our course website.

Course Prerequisites or Other Restrictions

This course requires that the student has successfully completed ADTA 5130 Data Analytics 1, DSCI 5180 Introduction to Business Decision Process, or equivalent college graduate-level statistics course prior to enrollment. Undergraduates must have completed IPAC 4130.

Course Objectives

By the end of the course, students should be able to:

1. Understand and be able to apply a variety of multivariate data analysis techniques.
2. Perform various clustering techniques to data as appropriate and explain results.
3. Explain how to apply techniques for analysis of text and unstructured data.
4. Apply concepts learned in course to real world case studies.

Course Topics:

1. Survey of multivariate interdependence and dependence analysis methods
2. Overview of classification methods
3. Discriminant analysis
4. Decision trees
5. Cluster analysis
6. Text Analysis
7. In-database analytics
8. Team projects and presentations

Materials

One textbook is required for this course. Other supplemental materials will be provided via a link to the UNT Willis Library website or included in the Module folders on Canvas. Students will also need to have access to SaS Enterprise Miner and SaS OnDemand as no cost for data analysis assignments.

Required

We will use Data Mining for Business Analytics: Concepts, Techniques, and Applications in R by Shmueli, G., P. C. Bruce, I. Yahav, N. R. Patel, and K. C. Lichtendahl, Jr. (2017). Other supplemental materials will be provided via a link to the UNT Willis Library website or included in the Module folders on Canvas.


The software used in this class is SAS / SAS OnDemand. Instructions for accessing this software will be made available in the “Online Course Technology” module located within the course Canvas site.

Teaching Philosophy

It is my goal to create a learning environment in which students feel respected, are engaged in the activities, and bring their questions, experiences, and ideas to the classroom. For real learning to occur, we must work together to achieve a common goal: mastery of the curriculum and the ability to apply what is learned to future activities both in and out of the classroom. In support of the learning objective, I commit to you, to be fully engaged in the classroom, to be available outside of the classroom, and to share my knowledge and experiences with you to enhance the learning process. I believe that learning should be fun (not necessarily easy or without hard work) and that I can learn from you, too. I expect each student to work at their full capacity, respect others, and participate in the classroom so that their experiences can add to the overall learning experience. Lifelong learning is the foundation of my commitment to you for ensuring that the ideas, concepts, theories, and practices I bring to the classroom are current, relevant, and of value to you.
Course Technology & Skills

Canvas Technical Requirements / Assistance

Access and Log in Information

This course was developed and will be facilitated utilizing the CANVAS Learning Management System. To get started with the course, please go to: https://unt.instructure.com/login/ldap

You can access student guides on Canvas at this site. You will need your EUID and password to log in to the course. If you do not know your EUID or have forgotten your password, please go to: https://ams.unt.edu/

The Canvas Student app has a mobile version of Canvas that helps students stay current with their courses anywhere. Download the Canvas Student app on Android and iOS devices.

For iOS devices, see: How do I download the Canvas Student app on my iOS device? https://community.canvaslms.com/docs/DOC-9831-18561185379

For Android devices, see: How do I download the Canvas Student app on my Android device? https://community.canvaslms.com/docs/DOC-9758-18555199445

Minimum Technology Requirements

To be successful in this course, you will need the following:

- Computer
- Reliable internet access
- Speakers/microphone/camera
- Microsoft Office Suite with current version of Excel
- SAS application and tools for statistical analysis
- Canvas Technical Requirements (https://clear.unt.edu/supported-technologies/canvas/requirements)

Computer Skills & Digital Literacy

This course utilizes Excel and SPSS to perform analytics techniques with curriculum delivered on our Canvas learning management system platform. You should be able to successfully:

- Use Canvas including uploading and downloading files and posting to discussion boards
- Send email with attachments
- Download and install software
- Use spreadsheet programs
- Use presentation and graphics programs

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)
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)

**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) for more information.
Course Requirements

Your final grade will be determined based on weekly analysis assignments, in-depth research projects and class participation: Class participation 14%; weekly analysis assignments 56%; and the final research project/presentation 30%. The total number of points received will be divided by the total possible number of points.

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Points Possible</th>
<th>Percentage of Final Grade</th>
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<tbody>
<tr>
<td><strong>Class Participation</strong></td>
<td></td>
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<tr>
<td>• 3 discussion board assignments @ 15 points each</td>
<td>140 points</td>
<td>14%</td>
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<tr>
<td>• 3 journal assignments @ 15 points each</td>
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<tr>
<td>• Attendance – 50 points (you must attend 80% of in-person class sessions)</td>
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<tr>
<td><strong>Weekly Assignments</strong></td>
<td>560 points</td>
<td>56%</td>
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<td>• 14 Chapter quizzes @ 15 points each</td>
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<tr>
<td>• 7 homework assignments: @ 50 points each</td>
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<tr>
<td><strong>Data Analytics Research Project-Final &amp; Presentation</strong></td>
<td>275 points</td>
<td>27.5%</td>
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<tr>
<td><strong>Final Project Peer Evaluation</strong></td>
<td>25 points</td>
<td>2.5%</td>
</tr>
<tr>
<td><strong>Total Points Possible</strong></td>
<td>1000 points</td>
<td>100%</td>
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Grading

Include the grading scale (A-F) along with the point totals/percentages you will use to calculate the final grade. For example:

A = 900-1000
B = 800-899
C = 700-799
D = 600-699
F = 0-599
Course Assignment, Examination, and or Project Policies

Data Analytics Research Project

Each team of 2-3 students will complete a team research project for this course. You will be provided with several data sets to choose from based upon the size of your team. If you choose to acquire your own data set, it must be pre-approved by the instructor. No exceptions to this will be allowed. (Data sets from Kaggle or similar sites will not be approved for this end of course project.) Details for this assignment will be contained in the Module 8 Final Project folder in our Canvas course. A rubric will be provided along with suggestions and links to resources. The best project are ones that have meaning to you personally. Work related projects are highly encouraged.

The final project and presentation are due at the end of the course. Each team of 2-3 students will submit a research paper that includes an introduction, brief literature review/industry analysis/history of the organization, problem statement/hypothesis, methods/analysis section, results, and discussion. Also part of the final project is a brief presentation, no longer than 10 minutes, which should include visual aids such as a PowerPoint presentation, must be submitted. Total points for the final project/presentation will be 275 points. It is expected that the paper be free from grammatical errors and appropriately use APA style for citations and reference list. The minimum requirement for the paper will be 15 pages of content, double-spaced, 1-inch margins, using Arial or Times Roman 12 point font. The submitted research paper should also include a separate cover page that includes your name(s) and the title of your paper as well as a reference list formatted using the current APA style guide. You are not required to include an abstract for this paper. A rubric for the project will be provided. The paper and presentation are due on May 10th, at 5:00 pm CST. Late papers will not be accepted. The peer evaluation (25 points) is due on March 10th.

Discussion Boards (15 points each)

There will be three discussion board assignments. Each discussion board forum will focus on a question related to the textbook reading or supplemental readings that will be posted to Canvas. To earn full points on discussion boards, students must be actively engaged in the group discussion and provide input to each of the assigned questions and respond to at least three peers. As graduate students, it is expected that your responses be thoughtful, respectful, grammatically correct, and show your understanding of the topic being discussed.

Journals (15 points each)

There will be three journal assignments. These are reflective in nature and are designed for you to share your thoughts and experiences related to the topic presented. There will be pre-reading assigned with each journal assignment that will be provided by your professor or come from the textbook. As graduate students, it is expected that your responses be thoughtful, grammatically correct, and show your understanding of the topic being discussed. These are more formal that discussion boards and should include citations as appropriate. You will submit these assignments using Turnitin to check for plagiarism. Journal assignments are not seen by your peers and do not require responses to their entries.
Module Quizzes
There will be a quiz for each chapter. Quizzes will be worth 15 points each and may be taken up to two (2) times with the highest earned grade counted toward your point total. The quizzes will be multiple questions designed to reinforce the textbook content. Quizzes need to be completed by the due date. Quizzes will be due as indicated on the course schedule. Times listed are Central Standard Time.

Homework Assignments (50 points each)
There will be seven (7) homework assignments given during the course that are related to material covered in the chapters. Assignments may include questions to be answered about a specific concept, analysis using provided data sets, interpretation of the results of the analysis, or questions related to the course material and how it was used or misused in a recent news story. There will be an assignment submission link provided in the appropriate folder for all homework assignments. Written responses are expected to be free of grammatical errors. Data analysis should include a brief discussion of the steps you used to complete the analysis. You will use SAS (or another appropriate tool) for the analysis portion of each homework assignment.
# Course Calendar – Spring 2022

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<thead>
<tr>
<th>Week</th>
<th>Topic / Required Reading</th>
<th>Assignments</th>
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<tbody>
<tr>
<td>Week 1</td>
<td>Course overview and Syllabus review&lt;br&gt;Watch UNT safety/Covid-19 video&lt;br&gt;Classroom procedures&lt;br&gt;What to expect&lt;br&gt;General discussion about statistics</td>
<td>Complete Introduction Assignment – Discussion Board #1 – Due Jan 27 @ 11:59 pm</td>
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<tr>
<td>Jan 16</td>
<td><strong>Module 1</strong>&lt;br&gt;Course Overview, Introduction to Data Mining, Data Visualization and Dimension Reduction&lt;br&gt;Course overview, Syllabus review, and the CRISP-DM analytics process. Read/skim the following chapters in Data Mining for Business Analytics (DMBA).</td>
<td>Syllabus Quiz</td>
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<tr>
<td>Class</td>
<td>01/20/22</td>
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<td></td>
<td><strong>Module 2</strong> – Introduction to Data Mining, Data Visualization and Dimension Reduction</td>
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<td></td>
<td><strong>Textbook Reading</strong>&lt;br&gt;1. Chapter 1-2: Introduction &amp; Overview of Data Mining&lt;br&gt;2. Chapter 3: Data Visualization&lt;br&gt;3. Chapter 4: Dimension Reduction&lt;br&gt;4. Chapter 5: Evaluating Predictive Performance</td>
<td>Read the chapters before class</td>
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<td></td>
<td>01/27/22</td>
<td>Quiz #1 – Chps 1-2)&lt;br&gt;Quiz #2 – Chps 3-4 and EDA&lt;br&gt;Quiz #3 – Chp 5&lt;br&gt;Assignment/Lab 1 EDA and PCA</td>
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<tr>
<td>Week 2</td>
<td><strong>Module 2 – Linear, Logistic, and Partial Least Squares Regression</strong></td>
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<tr>
<td>Jan 23</td>
<td><strong>Chapter 6: Multiple Linear Regression</strong></td>
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<td>Class</td>
<td>02/03/22</td>
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<td></td>
<td>02/03/22</td>
<td>Read textbook</td>
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<td></td>
<td><strong>Complete journal assignment</strong></td>
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<td>02/03/22</td>
<td>Quiz #4 – Chp 6 Linear Regression</td>
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<tr>
<td>Week 3</td>
<td><strong>Module 2 – Linear, Logistic, and Partial Least Squares Regression</strong></td>
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<tr>
<td>Jan 30</td>
<td><strong>Chapter 10: Logistic Regression</strong></td>
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<tr>
<td>Class</td>
<td>02/10/22</td>
<td>Read textbook</td>
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<td>02/10/22</td>
<td>Quiz #5 – Chp 10 Logistic Regression</td>
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<td>02/10/22</td>
<td>Lab 2 Regression</td>
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<td>Week</td>
<td>Topic / Required Reading</td>
<td>Assignments</td>
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<tr>
<td>Week 5</td>
<td><strong>Module 3 – k-Nearest Neighbors (k-NN) &amp; Naïve Bayes Classifier</strong></td>
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<tr>
<td>Feb 13</td>
<td>Chapter 7: k-Nearest Neighbors</td>
<td>Read textbook</td>
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<td>Class 02/17/22</td>
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<td>Complete discussion board/journal</td>
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<td>Take Module #6 – Chp 7 kNN</td>
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<tr>
<td>Week 6</td>
<td><strong>Module 3 – k-Nearest Neighbors (k-NN) &amp; Naïve Bayes Classifier</strong></td>
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<tr>
<td>Feb 20</td>
<td>Chapter 8: The Naïve Bayes Classifier</td>
<td>Read textbook</td>
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<td>Class 02/24/22</td>
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<td>Quiz #7 – Chp 8 NB</td>
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<td>Lab 3 Classification with kNN and Naïve Bayes</td>
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<td>Week 7</td>
<td><strong>Module 4 – Decision Trees</strong></td>
<td>Read textbook</td>
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<tr>
<td>Feb 27</td>
<td>Chapter 9: Classification and Regression Trees</td>
<td>Complete discussion board/journal</td>
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<tr>
<td>Class 03/03/22</td>
<td></td>
<td>Quiz #8 – Chp 9.1-9.9 Decision Trees</td>
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<tr>
<td>Week 8</td>
<td><strong>Module 4 – Decision Trees</strong></td>
<td>Read Textbook</td>
</tr>
<tr>
<td>Mar 6</td>
<td>Chapter 9: Classification and Regression Trees</td>
<td>Quiz #9 – Chp 9.10-9.11 Decision Tree Ensembles</td>
</tr>
<tr>
<td>Class 03/10/22</td>
<td></td>
<td>Lab 4 Decision Trees</td>
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<tr>
<td>Week 9</td>
<td><strong>Module 5 – Neural Nets and Discriminant Analysis</strong></td>
<td>Read textbook</td>
</tr>
<tr>
<td>Mar 20</td>
<td>Chapter 11: Neural Nets</td>
<td>Complete discussion board/journal</td>
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<tr>
<td>Class 03/24/22</td>
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<td>Quiz #10 – Chp. 11 Neural Nets</td>
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<td></td>
<td>Course Project Proposal Due</td>
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<tr>
<td>Week 10</td>
<td><strong>Module 5 – Neural Nets and Discriminant Analysis</strong></td>
<td>Read textbook</td>
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<tr>
<td>Mar 27</td>
<td>Chapter 12: Discriminant Analysis</td>
<td>Quiz #11 – Chp. 12 Discriminant Analysis</td>
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<tr>
<td>Class 03/31/22</td>
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<td>Lab 5 Neural Nets and Discriminant Analysis</td>
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<tr>
<td>Week</td>
<td>Topic / Required Reading</td>
<td>Assignments</td>
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<tr>
<td>Week 11</td>
<td><strong>Module 6 – Ensembles and Clustering</strong>&lt;br&gt;Chapter 13: Combining Models: Ensembles and Uplift Modeling</td>
<td>Read textbook&lt;br&gt;Complete discussion board/journal&lt;br&gt;Quiz #12 – Chp. 13 Ensembles</td>
</tr>
<tr>
<td>Apr 3</td>
<td><strong>Module 6 – Ensembles and Clustering</strong>&lt;br&gt;Chapter 15: Cluster Analysis</td>
<td>Read textbook&lt;br&gt;Quiz #13 – Chp. 15 Cluster Analysis&lt;br&gt;Lab 6 Ensembles and Clustering</td>
</tr>
<tr>
<td>Class 04/07/22</td>
<td><strong>Module 7 – Correlation, Linear, and Multiple Regression</strong>&lt;br&gt;Chapter 8: Introduction to linear regression</td>
<td>Read textbook&lt;br&gt;Complete discussion board/journal</td>
</tr>
<tr>
<td>Week 12</td>
<td><strong>Module 7 – Correlation, Linear, and Multiple Regression</strong>&lt;br&gt;Chapter 8: Introduction to linear regression</td>
<td>Read textbook&lt;br&gt;Complete discussion board/journal</td>
</tr>
<tr>
<td>Apr 10</td>
<td><strong>Module 7 – Text Mining</strong>&lt;br&gt;Chapter 20: Text Mining&lt;br<em>Lecture will be recorded and posted for your review Optional virtual session will be scheduled</em></td>
<td>Read textbook&lt;br&gt;Quiz #14 – Chp. 20 Text Mining&lt;br&gt;Complete Module 7 assignment</td>
</tr>
<tr>
<td>Class 04/28/22</td>
<td><strong>Module 8 – “Pre-Finals Week”</strong>&lt;br&gt;Project Presentations and Paper&lt;br&gt;Complete Reflection Journal</td>
<td>Work on project and presentation</td>
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<tr>
<td>Week 15</td>
<td><strong>Module 8 – “Pre-Finals Week”</strong>&lt;br&gt;Project Presentations and Paper&lt;br&gt;Complete Reflection Journal</td>
<td>Work on project and presentation</td>
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<tr>
<td>May 1</td>
<td><strong>Module 8 – Final project and presentation</strong>&lt;br&gt;Project papers and presentations due on May 10th at 5:00 pm</td>
<td>Complete project and presentation&lt;br&gt;Complete peer review</td>
</tr>
<tr>
<td>Class 05/05/22</td>
<td><strong>Module 8 – Final project and presentation</strong>&lt;br&gt;Project papers and presentations due on May 10th at 5:00 pm</td>
<td>Complete project and presentation&lt;br&gt;Complete peer review</td>
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Course Evaluation

Student Perceptions of Teaching (SPOT) is the student evaluation system for UNT and allows students the ability to confidentially provide constructive feedback to their instructor and department to improve the quality of student experiences in the course.

Course Policies

Face Coverings
UNT encourages everyone to wear a face covering when indoors, regardless of vaccination status, to protect yourself and others from COVID infection, as recommended by current CDC guidelines. Face covering guidelines could change based on community health conditions.

Attendance Policy
Students are expected to attend class meetings regularly and to abide by the attendance policy established for this course. It is important that you communicate with the professor prior to being absent so you and the professor can discuss and mitigate the impact of the absence on your attainment of course learning goals. Please inform the professor if you are unable to attend class meetings because you are ill, in mindfulness of the health and safety of everyone in the community. You are responsible for reading course announcements and keeping up with assignments as posted in the course syllabus. It is always recommended that you attend scheduled virtual class meetings. They are not mandatory but do provide an excellent opportunity to interact with your peers and ask questions.

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 Team at COVID@unt.edu for guidance on actions to take due to symptoms, pending or positive test results, or potential exposure.

Course 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
Class Participation
Students are required to login regularly to the online class site. The instructor will use the tracking feature in Canvas to monitor student activity. Students are also required to participate in all class activities such as discussion board, chat or conference sessions and group projects.

Late Work
All work for this course is due no later than 5:00 pm on the designated due. Any assignment submitted after that time will receive a highest possible score of 60%. Additional points may be deducted when the assignment is graded based on the quality of the work submitted. Please don’t lose valuable points this semester by turning in work late.

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

**Late work is subject to penalty described above unless previously approved by the instructor**

Examination Policy
Exams are open book but must be completed without the assistance of peers or others that have knowledge of the course content. Students that engage in academic dishonesty will suffer the consequences per department guidelines. If you lose your internet connection during an exam, contact the help desk immediately and notify me as well. If necessary, I can reset your exam. If you miss an exam, make-up exams will be offered as appropriate.

Assignment Policy
Assignment due dates are posted in the syllabus and on Canvas. Any changes to due dates will be updated on Canvas and communicated in an announcement. For assignments that require you to upload your work, you must submit your files in one of the following formats: .docx, .xlsx, .pdf, or .pptx. Do not submit .pages files.

Turnitin will be utilized an all formal written assignments. 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. Turnitin is used as a tool to assist students in their scholarly writing to address plagiarism issues. It is recommended that students use this resource to ensure their work is free of copyright issues prior to final submission of their projects.

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

Instructor Responsibilities and Feedback
- As the instructor, it is my responsibility to help students grow and learn; provide clear instructions for projects and assessments, answer questions about assignments, identify additional resources as necessary, provide rubrics, and continually review and update course content based upon learning outcomes and changes in the field of study.
- Feedback on assignments will be provided in a timely manner. Students can expect responses to emails within 24 hours. Grades for weekly assignments will be posted the following week. Project grades will be posted as they are completed.

Syllabus Change Policy
While the plan is to follow this syllabus as written, it is not unreasonable to expect that adjustments will be made if necessary due to events that outside of my control. Any changes will be posted in the announcement section of our Canvas course. If these changes impact assignments or due dates, they will be communicated via email as well.

UNT Policies

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.

Advanced Data Analytics Integrity Policy

<table>
<thead>
<tr>
<th>Minor Assignment</th>
<th>Major Assignment</th>
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</thead>
<tbody>
<tr>
<td>Ex. Discussion, HW, Journals</td>
<td>E. Exam Mid term</td>
</tr>
<tr>
<td><strong>1st warning</strong></td>
<td><strong>1st warning</strong></td>
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<tr>
<td>1. First written warning</td>
<td>1. Written warning</td>
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<tr>
<td>2. Min. 20% deduction</td>
<td>2. Min. 15%</td>
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<tr>
<td><strong>2nd warning</strong></td>
<td><strong>2nd warning</strong></td>
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<tr>
<td>1. Second written warning</td>
<td>1. Second written warning</td>
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<tr>
<td>2. Min. 50% deduction</td>
<td>2. Min. 50%</td>
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<tr>
<td>3. Inform academic advisor during Dept. Meeting</td>
<td>3. Inform academic advisor during Dept. Meeting</td>
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<tr>
<td><strong>3rd warning</strong></td>
<td><strong>3rd warning</strong></td>
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<tr>
<td>1. Written Letter</td>
<td>1. Written Letter</td>
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<tr>
<td>2. Min. 0 grade for that assignment</td>
<td>2. Min. 0 grade for that assignment</td>
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</table>
ADA Policy
The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking reasonable accommodation must first register with the Office of Disability Access (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with a reasonable accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request reasonable accommodations at any time; however, ODA notices of reasonable accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of reasonable accommodation for every semester and must meet with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of reasonable accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information, refer to the Office of Disability Access website (http://www.unt.edu/oda). You may also contact ODA by phone at (940) 565-4323.

Prohibition of Discrimination, Harassment, and Retaliation (Policy 16.004)
The University of North Texas (UNT) prohibits discrimination and harassment because of race, color, national origin, religion, sex, sexual orientation, gender identity, gender expression, age, disability, genetic information, veteran status, or any other characteristic protected under applicable federal or state law in its application and admission processes; educational programs and activities; employment policies, procedures, and processes; and university facilities. The University takes active measures to prevent such conduct 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) 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).

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" (no-reply@iasystem.org) with the survey link. Students should look for the email in their UNT email inbox. Simply click on the link and complete the survey. Once students complete the survey they will receive a confirmation email that the survey has been submitted. For additional information, please visit the SPOT website (http://spot.unt.edu/) or email spot@unt.edu.

Survivor Advocacy
UNT is committed to providing a safe learning environment free of all forms of sexual misconduct. Federal laws and UNT policies prohibit discrimination on the basis of sex as well as 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. The Survivor Advocates can be reached at SurvivorAdvocate@unt.edu or by calling the Dean of Students Office at 940-5652648.

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

The paragraph reads:

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

**University of North Texas Compliance**

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

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

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

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

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

**Student Verification**

UNT takes measures to protect the integrity of educational credentials awarded to students
enrolled in distance education courses by verifying student identity, protecting student privacy,
and notifying students of any special meeting times/locations or additional charges associated
with student identity verification in distance education courses.

See UNT Policy 07-002 Student Identity Verification, Privacy, and Notification and Distance
Education Courses (https://policy.unt.edu/policy/07-002).

**Use of Student Work**

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

Transmission and Recording of Student Images in Electronically-Delivered Courses

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

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

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

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

Class Recordings & Student Likenesses

Synchronous (live) sessions in this course will be recorded for students enrolled in this class section to refer to throughout the semester. Class recordings are the intellectual property of the university or instructor and are reserved for use only by students in this class and only for educational purposes. Students may not post or otherwise share the recordings outside the class, or outside the Canvas Learning Management System, in any form. Failing to follow this restriction is a violation of the UNT Code of Student Conduct and could lead to disciplinary action.

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

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

• **UNT Records**
• **UNT ID Card**
• **UNT Email Address**
• **Legal Name**

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

**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](https://studentaffairs.unt.edu/counseling-and-testing-services/services/individual-counseling) so that they follow your name when posting to discussion boards, submitting assignments, etc.

Below is a list of additional resources regarding pronouns and their usage:

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

**Additional Student Support Services**
- **Registrar** (https://registrar.unt.edu/registration)
- **Financial Aid** (https://financialaid.unt.edu/)
- **Student Legal Services** (https://studentaffairs.unt.edu/student-legal-services)
- **Career Center** (https://studentaffairs.unt.edu/career-center)
- **Multicultural Center** (https://edo.unt.edu/multicultural-center)
- **Counseling and Testing Services** (https://studentaffairs.unt.edu/counseling-and-testing-services)
- **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 (https://success.unt.edu/asc)
• UNT Libraries (https://library.unt.edu/)
• Writing Lab (http://writingcenter.unt.edu/)