Course Information

ADTA 5940 – Analytics Capstone Experience
Fall 2019 – August 26, 2019 – December 13, 2019
Class Meeting Time/Location – Virtual class meetings as scheduled; individual meetings as scheduled

Instructor Contact

Denise R Philpot, PhD, MBA
New College at Frisco, Room 126
Office hours: Tuesday and Wednesday, 3:30-5:30 pm; other times by appointment
Denise.Philpot@unt.edu

About the Professor / Instructor

Welcome to ADTA 5940 Analytics Capstone Experience. I am Dr. Denise Philpot, the instructor for this course and the Advanced Data Analytics program advisor. 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. While teaching high school business courses I earned my MBA in Organizational Behavior/Human Resource Management. Like many of my students, I have not followed the traditional academic path. The variety of career and academic experiences that we all have provide the foundation for interesting course discussions.

I am excited to have you in this course and look forward to learning more about you and your career goals. Together 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!

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

This course is the culmination of the Advanced Data Analytics degree and must be taken in your final semester.

Required Materials

There are no required textbooks for this course. However, there are several good books that can help you with the scholarly writing process and are listed below. 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 Microsoft Excel and SPSS for data analysis assignments. Other software tools that were used in other course should also be utilized for this course, i.e., Tableau, SQL, and Python as necessary.
Suggested Materials

Suggested books for this course.


Course Description

Open to all student 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.

Course Objectives

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

1. Demonstrate experimental design and sampling methodologies.
2. Demonstrate appropriate use of parametric and non-parametric tests.
3. Develop meaningful linear regression models.
4. Integrate a variety of data analysis techniques and data collection processes based upon their project requirements.
5. Use statistical software tools and programming applications to perform data analysis and effectively display the results.
6. Apply concepts learned in Advanced Data Analytics courses to generate proposed solutions to a real case study.
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.

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

Student Academic Support Services

Links to all these services can be found on the Online Student Resources tab within the Canvas Help function.

- Academic Resource Center: buy textbooks and supplies, access academic catalogs and programs, register for classes, and more.
- Center for Student Rights and Responsibilities: provides Code of Student Conduct along with other useful links.
- Office of Disability Accommodation: ODA exist to prevent discrimination on the basis of disability and to help students reach a higher level of independence. https://disability.unt.edu/
- Counseling and Testing Services: CTS provides counseling services to the UNT community as well as testing services; such as admissions testing, computer-based
testing, career testing and other tests. [http://studentaffairs.unt.edu/counseling-and-testing-services]

- UNT Libraries: online library services [http://www.library.unt.edu/services]
- Online Tutoring: chat in real time, mark up your paper using drawing tools and edit the text of your paper with the tutor’s help.
- The Learning Center Support Programs: various program links provided to enhance the student experience. [https://learningcenter.unt.edu/]
- Supplemental Instruction: program for every student, not just for students that are struggling.
- UNT Writing Lab: offers free writing tutoring to all UNT students, undergraduate and graduate. [http://writingcenter.unt.edu/]
- Math Tutor Lab: [http://math.unt.edu/mathlab/]
- Succeed at UNT: how to be a successful student information. [https://success.unt.edu/]

The following information is provided to assist you in preparation for the technological aspect of the course.

UIT Help Desk: [http://it.unt.edu/help-desk-resources-students]

Browser requirements: You need a browser that interfaces well with Canvas, such as Microsoft Internet Explorer or Mozilla Firefox. [https://clear.unt.edu/supported-technologies/canvas/requirements]

Word Processor
Creating and submitting files in Microsoft Office, the standard software for this course.

STUDENT TECHNICAL SUPPORT

The University of North Texas [UIT Student Helpdesk] provides student technical support in the use of Canvas and supported resources. The student help desk may be reached at:

Email: helpdesk@unt.edu  Phone: 940.565-2324
In Person: Sage Hall, Room 130

Our hours are:
- Monday-Thursday 8am-midnight
- Friday 8am-8pm
- Saturday 9am-5pm
- Sunday 8am-midnight

Technical Skill Requirements

Students should be able to upload and download files, perform data analysis using Microsoft Excel and SPSS, and access the Internet for course support materials. Effective navigation of Canvas is necessary as course assignments and support materials will be made available through this
application. Email will be used to communicate to students via the UNT provided student email accounts.

**Netiquette**

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. This includes but is not limited to comments made on discussion boards or other unacceptable communications between students in an online or blended learning environment. Inappropriate behaviors will be handled based upon the UNT Student Conduct and Discipline Policy which can be found at [deanofstudents.unt.edu/conduct](http://deanofstudents.unt.edu/conduct).

For those students that are new to online learning or assignments on a Learning Management System like Canvas, you may find these guidelines developed by Albion and Seth T. Ross to be very helpful.


**Course Requirements**

Your final grade will be determined based upon the rubric listed below: Concept Paper – 15%; Scholarly Review with References – 20%; First draft of Project Paper – 15%; Final Project Paper – 35%; and, Final Project Presentation – 15%. The total number of points received will be divided by the total possible number of points to determine letter grade for the course.

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Points Possible</th>
<th>Percentage of Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concept Paper</td>
<td>150 points</td>
<td>15%</td>
</tr>
<tr>
<td>Industry/Scholarly review with references</td>
<td>200 points</td>
<td>20%</td>
</tr>
<tr>
<td>First draft of project paper</td>
<td>150 points</td>
<td>15%</td>
</tr>
<tr>
<td>Final project paper</td>
<td>350 points</td>
<td>35%</td>
</tr>
<tr>
<td>Final project presentation</td>
<td>150 points</td>
<td>15%</td>
</tr>
<tr>
<td>Total Points Possible</td>
<td>1000 points</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Grading**

Course grades will be assigned based on this percentage with a standard 10-point grading scale (100% – 90%, A; 89% – 80%, B; 79% – 70%, C; 69% – 60%, D; 59% – 0%, F).
Course Assignment, Examination, and or Project Policies

**Concept Paper**
Each student will complete an individual research project for this course. Part 1 of the project will be due in September and consist of an outline of your proposed project including a problem statement or hypothesis that you would like to analyze. You will be required to acquire a data set of sufficient size to complete your analysis. Details for this assignment will be contained in the 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 Concept Paper is worth 150 points.

**Industry/Scholarly review with references**
Each student will complete an industry/scholarly review for their project which presents other research and or best practices related to their project. The reference list should be formatted using the APA style guide. Students should have a minimum of 10 high quality references at this stage of their project. This component of the project is worth 200 points and will be due in October.

**First Draft of the Project Paper**
To ensure each student is making timely progress with the research project, a first draft of the final project paper will be require. This will contain an introduction, scholarly review, methods and preliminary results sections as well as the updated reference list. This will be due by mid-November and is worth 150 points.

**Final Paper and Presentation**
The final project and presentation are due at the end of the course. Each student will submit a research paper that includes an introduction, scholarly review/best practices review, problem statement/hypothesis, methods/analysis section, results, and discussion. Also part of the final project is a brief presentation which should include visual aids such as a PowerPoint presentation. Total points for the final project/presentation will be 500 points – 350 for the paper and 150 for the presentation. 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 25 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 and the title of your paper. 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 December 7th, 2019, at 5:00 pm CST. Class presentations will be scheduled during finals week. Late papers will not be accepted. The paper will be submitted for grading via software that checks for plagiarism. Plagiarism is a violation of the Student Code of Conduct and will be handled per university policy.

**Course Expectations**
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.
Policies

Assignment Policy / Late Work
All work for this course is due no later than 11:59 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.

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

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.

Turnitin Notice
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.

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.

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

Incompletes
Incompletes will only be given per university policy.

http://registrar.unt.edu/grades/incompletes
UNT POLICIES

Student Conduct and Discipline:
You are encouraged to become familiar with the University’s Code of Student Conduct and the Policy of Academic Integrity found on the Dean of Students website. The policies contained on this website apply to this course. If you have questions regarding any of the information presented regarding academic integrity, please feel free to contact me. I will be happy to review any of your work prior to final submission for grading.

The UNT Code of Student Conduct can be found here: http://deanofstudents.unt.edu/conduct

The UNT policy regarding Academic Integrity can be found here: http://policy.unt.edu/policy/06-003

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 Accommodation (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 see the Office of Disability Accommodation website at http://www.unt.edu/oda. You may also contact them by phone at 940.565.4323.

Sexual Assault Prevention

UNT is committed to providing a safe learning environment free of all forms of sexual misconduct, including sexual harassment sexual assault, domestic violence, dating violence, and stalking. Federal laws (Title IX and the Violence Against Women Act) and UNT policies prohibit discrimination on the basis of sex, and therefore prohibit sexual misconduct. If you or someone you know is experiencing sexual harassment, relationship violence, stalking, and/or sexual assault, there are campus resources available to provide support and assistance. UNT’s Survivor Advocates can assist a student who has been impacted by violence by filing protective orders, completing crime victim’s compensation applications, contacting professors for absences related to an assault, working with housing to facilitate a room change where appropriate, and connecting students to other resources available both on and off campus. The Survivor Advocates can be reached at SurvivorAdvocate@unt.edu or by calling the Dean of Students Office at 940-565-2648. Additionally, alleged sexual misconduct can be non-confidentially reported to the Title IX Coordinator at oeo@unt.edu or at (940) 565 2759.
Important Notice for F-1 Students taking Distance Education Courses

Federal Regulation

To read detailed Immigration and Customs Enforcement regulations for F-1 students taking online courses, please go to the Electronic Code of Federal Regulations website at [http://ecfr.gpoaccess.gov](http://ecfr.gpoaccess.gov). The specific portion concerning distance education courses is located at "Title 8 CFR 214.2 Paragraph (f)(6)(i)(G)" and can be found buried within this document: [http://frwebgate.access.gpo.gov/cgi-bin/get-cfr.cgi?TITLE=8&PART=214&SECTION=2&TYPE=TEXT](http://frwebgate.access.gpo.gov/cgi-bin/get-cfr.cgi?TITLE=8&PART=214&SECTION=2&TYPE=TEXT)

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.
## Course Calendar – Fall 2019

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Other important tasks</th>
<th>Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Aug 26</td>
<td>Course overview and Syllabus review Meet your peers</td>
<td>Familiarize yourself with the UNT library website</td>
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<tr>
<td>Week 2</td>
<td>Sept 2</td>
<td>Begin work on project</td>
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<tr>
<td>Week 3</td>
<td>Sept 9</td>
<td>Work on Concept paper</td>
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<tr>
<td>Week 4</td>
<td>Sept 16</td>
<td>Work on Concept paper</td>
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<tr>
<td>Week 5</td>
<td>Sept 23</td>
<td>Work on industry/scholarly review</td>
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<tr>
<td>Week 6</td>
<td>Sept 30</td>
<td>Work on industry/scholarly review</td>
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<tr>
<td>Week 7</td>
<td>Oct 7</td>
<td>Work on industry/scholarly review</td>
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<tr>
<td>Week 8</td>
<td>Oct 14</td>
<td>Work on first draft of project and data analysis</td>
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<tr>
<td>Week 9</td>
<td>Oct 21</td>
<td>Work on first draft of project and data analysis</td>
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<tr>
<td>Week 10</td>
<td>Oct 28</td>
<td>Work on first draft of project and data analysis</td>
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<tr>
<td>Week 11</td>
<td>Nov 4</td>
<td>Work on first draft of project and data analysis</td>
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<tr>
<td>Week 12</td>
<td>Nov 11</td>
<td>Work on final draft of project and presentation</td>
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*Applications for Graduation are due October 11th
Be sure to order your regalia [https://commencement.unt.edu/regalia-overview]*
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<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Other important tasks</th>
<th>Assignments</th>
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</thead>
<tbody>
<tr>
<td>Week 13</td>
<td>Work on final draft of project and presentation</td>
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<tr>
<td>Nov 18</td>
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<tr>
<td>Week 14</td>
<td>Work on final draft of project and presentation</td>
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<tr>
<td>Nov 25</td>
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<td></td>
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<tr>
<td>Week 15</td>
<td>Work on final draft of project and presentation</td>
<td></td>
<td>Final project paper and presentation due December 7</td>
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<tr>
<td>Dec 2</td>
<td></td>
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<tr>
<td>Week 16</td>
<td>“Final Exam Week”</td>
<td>Project Presentations and Paper</td>
<td>Presentations to be done in person or via Skype with peers</td>
</tr>
<tr>
<td>Dec 9</td>
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