

# ACCT 5392: Selected Topics in Accounting

Accounting Data Analytics

Spring 2020

## Instructor Information

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**Instructor:** Dr. Cherie Henderson

**Office Number:** COB 409

**Office Telephone Number:** 817-272-3179 or 817-272-7029 (department phone number)

**Email Address:** [chenderson@uta.edu](mailto:chenderson@uta.edu) (email is preferred and the quickest way to reach me)

**Faculty Profile:** <https://www.uta.edu/profiles/sandra-henderson>

**Office Hours:** Mondays and Wednesdays 3:30 pm - 5:00 pm or by appointment available in Microsoft Teams only

**Due to the COVID-19 events, this course switched to online modality as of March 23, 2020. As a result, the assignments from March 23 to the end of the semester will be adjusted to reflect this change. Please note the changes made in the course requirements and assignments as indicated by a different font and/or underlining. The instructor reserves the right to make additional changes to the assignments or grading schema as needed to complete this course on time and in response to university policies and guidance.**

## Course Information

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### Section Information:

ACCT 5392-001

### Time and Place of Class Meetings:

### Description of Course Content:

The analysis of data as it pertains to accounting professionals. Focuses on analytical techniques and the skills necessary to translate accounting information into actionable proposals that can be presented to decision makers in areas such as auditing, risk management, forensics, predictive modeling and strategic planning. Prerequisites: business statistics and ACCT 5316 with a grade of C or higher.

### Course Objectives:

One of the major challenges in businesses today is the proliferation of data. Organizations struggle to understand how to capture, organize, manage, and use the data. Because this information can come from a variety of sources (e.g., operational, mechanical, or social) and in a variety of forms (e.g., structured or unstructured), companies often find themselves with vast amounts of data but with little ability to use it to gain better insights.

As custodians of the company's assets, accountants are expected to understand and properly manage this data. As business professionals, accountants are expected to know how to apply this data for improved decision making and better risk management. Accountants need to develop the skillset necessary to both be effective custodians of the data as well as to extract value from the data held by the organization. Therefore, it is incumbent on the accounting profession to understand big data. This course will help ensure that students start becoming aware of the big data and how organizations can leverage it.

**Student Learning Outcomes:**

The student learning outcomes for this course are to:

- Identify the different types of data and how data is structured.
- Explain how data analytics are used in business and society.
- Explain how analytics can be used to solve auditing, tax, and advisory related problems.
- Develop critical thinking skills around the design and implementation of data analytics solutions.
- Apply different types of analytics (descriptive, predictive, and prescriptive) to different accounting needs and challenges.
- Apply different tools to analyze and visualize the data.
- Interpret results from analytic procedures.
- Present recommendations to decision makers.

**Required Textbooks and Other Course Materials:**

**Textbook:** *Data Analytics for Accounting*, Richardson, Teeter, and Terrell, McGraw-Hill, 2019.

ISBN: 978-1-260-37519-0.

Rental options, a digital version through Connect (ISBN: 978-1-260-37513-8) and a loose-leaf version (ISBN: 978-1-260-37515-2) are available on the publisher's website at

<https://www.mheducation.com/highered/product/data-analytics-accounting-richardson-terrell/M9781260375190.html#interactiveCollapse>.

**Software:** The focus of this class is on concepts, not tools, however we will use several applications during the semester including Microsoft Excel, Microsoft Access, Tableau, IDEA, and Weka. All are available at no cost to students. There is a possibility that we will use others. If we do, you will be notified well in advance of its use so that you have time to acquire and install the software on your computer.

**Canvas:** We will use Canvas for online management of this course. All class information, materials, announcements, grades, and assignments will be on Canvas. All assignments will be submitted via Canvas.

**Microsoft Teams:** As part of the response to the COVID-19 events, we will also be using Microsoft Teams. You can download Microsoft Teams and log in using your UTA ID and password. The University has set up teams for each class. More login information will be forthcoming.

You can download Teams from here: **Download Microsoft Teams**. Go to this website to download: [Download Microsoft Teams](#).

**Review the Microsoft Teams Resource Guide:** [Microsoft Teams Resource Guide](#)

**LockDown Browser + Webcam:** Due to the online nature of the second half of the semester, this course will require the use of LockDown Browser and a webcam for online exams. The webcam can be the type that is built into your computer or one that plugs in with a USB cable. If you do not have a computer with a webcam, you need to let me know immediately.

**Download Instructions and Video**

Download and install LockDown Browser from this link:

<https://download.respondus.com/lockdown/download.php?id=163943837>

If any other software is determined to be needed for more effective delivery of the course, you will be provided download instructions.

### **Descriptions of major assignments and examinations:**

**Quizzes:** Eight quizzes will be given during the semester to ensure that you adequately read and understand the textbook chapters and any other readings. Quiz questions may include multiple choice, short discussion and short problems/exercises. The quizzes will generally be given at the start of class and you will have approximately 10-15 minutes to complete the quiz. After Spring Break, quizzes will be given at 7:00 on the Monday evening as listed in the schedule. You will not be required to use the LockDown Browser for these quizzes. There will be **no makeups** for quizzes. The lowest quiz score will be dropped.

**In-Class/Homework Assignments:** In-class and homework assignments will be assigned for nearly every class period. The work is to be done in class (or at home after Spring Break) and turned in by the end of the class period. The due dates will change after Spring Break. There will be **no makeups** for in-class assignments.

**Labs:** There will be two types of labs—individual and group—assigned during the semester.

**Individual Labs:** These assignments are to be completed on an individual basis. While I understand that you might work with someone, you must understand the concepts, do the work yourself and turn in only your work.

**Group Labs:** The group assignments are a little more intense, so you will be working in small groups of approximately 2-3 students (dependent upon class size). You will sign up for a group on Canvas so that only one assignment is turned in per group.

**Late Lab Assignments will be accepted on a very limited basis. Any assignment turned in after the due date and time in Canvas will receive an immediate 20% penalty. Under no circumstances will any assignment be accepted more than 30 minutes past the time due.**

**Exams:** There will be a midterm and a final exam for the course. Both exams will be based on **all materials** presented, including any readings, discussions, and textbook material. Short answer, objective questions, and computer-based problems may be used. The final exam will be comprehensive. The comprehensive part of the final will be taken from the midterm and quizzes that preceded the midterm. Roughly 25% of the questions will be from the midterm chapters and topics.

**Makeup exams:** There will be **no makeup exams allowed** due to the nature of the class. In the case of a documented emergency, the Final Exam score percentage may be substituted for the Midterm Exam. However, verifiable written documents must be submitted by the class after the exam in order for the absence to be excused and the substitution to be allowed. Legitimate emergencies must be the result of unavoidable or serious circumstances (e.g., illness or injuries that requires you to go to the emergency room, death in the family, or accidents on the way to the exam (with a police report)). A flat tire, car trouble (including accidents where the police are not involved), no babysitter, tired, allergies, colds, personal or family problems, vacations or similar out of town trips, etc., are not eligible for “excused absence” status. If you miss an exam without being excused, you will receive a zero for that exam.

**Exams will be given on Canvas.** You will be required to take them with Respondus LockDown Browser and Monitor. **Respondus LockDown Browser** is a custom browser that locks down the testing environment in Canvas. **Respondus Monitor**, a webcam feature for LockDown Browser, records students during online, non-proctored exams.

Both exams will consist of a conceptual part and a software-based part. The software-based part of the exam will not require the LockDown Browser as it is open-note. I most likely will require a webcam during this portion. The conceptual part actually will be given first and you will be using the LockDown Browser.

As such, you will need a webcam and the Respondus software downloaded on your computer or use of a lab on-campus that has Respondus. A Practice Quiz will be provided so that you can make sure everything is set up before Exam day.

You CANNOT communicate with other people during the exam. Please stay in your seat until you complete your exam. If an interruption occurs, briefly explain what happened by speaking directly to your webcam. And, finally, remember that you cannot exit the exam until all questions are completed and submitted it for grading.

### **Steps to starting a LockDown Browser Quiz or Exam:**

- Start LockDown Browser
- Log into to Canvas
- Navigate to the quiz or exam

Note: You won't be able to access a quiz or exam that requires LockDown Browser with a standard web browser. If this is tried, an error message will indicate that the quiz/exam requires the use of LockDown Browser. Simply start LockDown Browser and navigate back to the quiz/exam to continue.

### **Guidelines for taking an online quiz or exam:**

- Ensure you're in a location where you won't be interrupted
- Turn off all other devices (e.g. tablets, phones, second computers) and place them outside of your reach
- Before starting the test, know how much time is available for it, and also that you've allotted sufficient time to complete it
- Clear your desk or workspace of all external materials not permitted - books, papers, other devices
- Remain at your computer for the duration of the quiz or exam
- If the computer, Wi-Fi, or location is different than what was used previously with the "Webcam Check" and "System & Network Check" in LockDown Browser, run the checks again prior to the exam
- To produce a good webcam video, do the following:
  - Avoid wearing baseball caps or hats with brims
  - Ensure your computer or device is on a firm surface (a desk or table). Do NOT have the computer on your lap, a bed, or other surface where the device (or you) are likely to move
  - If using a built-in webcam, avoid readjusting the tilt of the screen after the webcam setup is complete
  - Take the exam in a well-lit room, but avoid backlighting (such as sitting with your back to a window)
- Remember that LockDown Browser will prevent you from accessing other websites or applications; you will be unable to exit the test until all questions are completed and submitted

**Getting Help:** Several resources are available if you encounter problems with LockDown Browser. If you do experience any issues, please let me know immediately if it is during an exam.

- The Windows and Mac versions of LockDown Browser have a "Help Center" button located on the toolbar. Use the "System & Network Check" to troubleshoot issues. If an exam requires you to use a webcam, also run the "Webcam Check" from this area
- Respondus has a Knowledge Base available from [support.respondus.com](https://support.respondus.com). Select the "Knowledge Base" link and then select "Respondus LockDown Browser" as the product. If your problem is with a webcam, select "Respondus Monitor" as your product

- If you're still unable to resolve a technical issue with LockDown Browser, go to [support.respondus.com](https://support.respondus.com) and select "Submit a Ticket". Provide detailed information about your problem and what steps you took to resolve it

**Professionalism:** The professionalism component of the course is partly derived from the feedback that your group members provide about your contribution to the group labs and presentation. The remainder of the professionalism score comes from your interaction and participation in class (e.g., showing up on time and staying for the class, working on class related activities instead of texting or surfing the web, participating in discussions, etc.). For the second part of the class (after Spring Break), the remainder of the professionalism score will come from participation in class discussions. I will look at how well you write your posts, the content of your discussion, and how you respond to other posts.

## Grading Information

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### Grading:

Course grades will be assigned based on the total number of points earned during the semester. Points are allocated according to the following:

### Point Distribution for Grading

Quizzes (7 @ 10 points)	70 pts
In-Class/ <u>Homework</u> Assignments (7 @ 10 points)	70 pts
Individual Labs	80 pts
Group Labs	100 pts
Professionalism	30 pts
Midterm Exam	150 pts
Comprehensive Final Exam	<u>200 pts</u>
<b>Total</b>	<b><u>700 pts</u></b>

### Grading Scale

<u>Grade</u>	<u>Points Range</u>	<u>%</u>
A	702 – 780 pts	≥ 90%
B	624 – 702 pts	≥ 80%
C	546 – 624 pts	≥ 70%
D	468 – 546 pts	≥ 60%
F	0 – 468 pts	< 60%

Students are expected to keep track of their performance throughout the semester and seek guidance from available sources (including the instructor) if their performance drops below satisfactory levels.

All grades will be maintained in the Canvas gradebook. No grade will be discussed or released by phone or email. Final grades will be posted in Canvas once the semester is complete.

### Grade Grievances:

Any appeal of a grade in this course must follow the procedures and deadlines for grade-related grievances as published in the current University Catalog. [See [Grades and Grading Policies](#). For student complaints, see [Student Complaints](#).]

### Expectations for Out-of-Class Study:

Beyond the time required to attend each class meeting, students enrolled in this course should expect to spend at least an additional 9 -12 hours per week of their own time in course-related activities, including reading required materials, completing assignments, preparing for exams, etc.

## Course Schedule

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Please note that this is a summary of the Course Schedule. The complete schedule is on Canvas and includes a detailed listing of topics and the associated assignments.

*As the instructor for this course, I reserve the right to adjust this schedule in any way that serves the educational needs of the students enrolled in this course. Schedule adjustments will be communicated either by verbal or written statement – Dr. Cherie Henderson*

Session	Date	Chapter	Topics
1	January 27	1	Introduction, Data Analytics in Accounting and Business
2	February 3	2	Data Preparation and Cleaning
3	February 10	2	Data Preparation and Cleaning
4	February 17	3	Modeling and Evaluation: Going from Defining Business Problems and Data Understanding to Analyzing Data and Answering Questions
5	February 24	3	Modeling and Evaluation: Going from Defining Business Problems and Data Understanding to Analyzing Data and Answering Questions
6	March 2	4	Visualization: Using Visualizations and Summaries to Share Results with Stakeholders
	<b>March 9</b>		<b>Spring Break</b>
7	<b>March 16</b>		<b>Spring Break - Extended</b>
8	March 23	4	Visualization: Using Visualizations and Summaries to Share Results with Stakeholders
9	<b>March 30</b>	5	<b>Midterm Exam (Chapters 1-4)</b>
	<b>April 3</b>		<b>Last Day to Drop (before 4:00 pm)</b>
10	April 6	5	The Modern Audit and Continuous Auditing
11	April 13	6	Audit Data Analytics
12	April 20	6	Audit Data Analytics
13	April 27	7	Generating Key Performance Indicators
14	May 4	8	Financial Statement Analysis
15	<b>May 11</b>		<b>Comprehensive Final Exam</b>

## Institution Information

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UTA students are encouraged to review the below institutional policies and informational sections and reach out to the specific office with any questions. To view this institutional information, please visit the [Institutional Information](http://www.uta.edu/provost/administrative-forms/course-syllabus/index.php) page (<http://www.uta.edu/provost/administrative-forms/course-syllabus/index.php>) which includes the following policies among others:

- Drop Policy
- Disability Accommodations
- Title IX Policy
- Academic Integrity
- Student Feedback Survey
- Final Exam Schedule

### Attendance:

At The University of Texas at Arlington, taking attendance is not required but attendance is a critical indicator of student success. Each faculty member is free to develop his or her own methods of evaluating students'

academic performance, which includes establishing course-specific policies on attendance. As the instructor of this section, I expect you to attend all classes. I will use a seating chart to record student attendance, but there is not an attendance component *per se* in calculating course grades. More than three absences during the semester are considered excessive and may impact the grade you receive in the class. Noticeable tardiness and leaving early are bad habits and will count as an absence if they occur routinely. If you are late, let me know so I can mark you present. Please let me know if you have an unavoidable problem with getting to class on time.

However, while UT Arlington does not require instructors to take attendance in their courses, the U.S. Department of Education requires that the University have a mechanism in place to mark when Federal Student Aid recipients “begin attendance in a course.” UT Arlington instructors will report when students begin attendance in a course as part of the final grading process. Specifically, when assigning a student a grade of F, faculty report must the last date a student attended their class based on evidence such as a test, participation in a class project or presentation, or an engagement online via Canvas. This date is reported to the Department of Education for federal financial aid recipients.

### **Emergency Exit Procedures:**

Should we experience an emergency event that requires evacuation of the building, students should exit the room and move toward the nearest exits, which are located via the stairways to the left or right when exiting the classroom. When exiting the building during an emergency, do not take an elevator but use the stairwells instead. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist individuals with disabilities.

Students are also encouraged to subscribe to the MavAlert system that will send information in case of an emergency to their cell phones or email accounts. You can subscribe at [Emergency Communication System](#).

### **The English Writing Center (411LIBR):**

The Writing Center offers **FREE** tutoring in 15-, 30-, 45-, and 60-minute face-to-face and online sessions to all UTA students on any phase of their UTA coursework. Register and make appointments online at the [Writing Center](https://uta.mywconline.com) (<https://uta.mywconline.com>). Classroom visits, workshops, and specialized services for graduate students and faculty are also available. Please see [Writing Center: OWL](#) for detailed information on all our programs and services.

The Library’s 2<sup>nd</sup> floor [Academic Plaza](http://library.uta.edu/academic-plaza) (<http://library.uta.edu/academic-plaza>) offers students a central hub of support services, including IDEAS Center, University Advising Services, Transfer UTA and various college/school advising hours. Services are available during the [library’s hours](#) of operation.

## **Emergency Phone Numbers**

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In case of an on-campus emergency, call the UT Arlington Police Department at **817-272-3003** (non-campus phone), **2-3003** (campus phone). You may also dial 911. Non-emergency number 817-272-3381