ACC 53:010:395: Accounting Data Analytics
Spring 2024

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Office Hours: Tuesdays, 2:00-3:30pm (Virtual)

Course Objectives:

This course is a broad introduction to applying data analytics to solve problems in accounting and other business areas. During the course, you will receive hands-on experience with applying data science techniques through a series of in-class labs and an open-ended final project. You'll learn how to understand your data, to collect the data you need, to find what you want in that data, extract it efficiently and effectively, and finally present it to those who need it. Tools we will use include Excel, PowerBi, Tableau, and SAS. Topics covered include data preparation and cleaning, statistical modeling, data visualization, audit data analytics, managerial performance analytics, financial statement analytics, audit analytics, and text mining. Prior experience with these tools is not required. While we will use many tools in this course, the focus is on concepts and not statistical math or programming.

This isn't a highly technical course, but this course will introduce you to technical topics. While we will explore some of the more technical aspects, the focus of this course will be the application of data science and analytics concepts to solve accounting and business problems. It is unlikely that you will go forth from this class and start work as a hardcore "quant." However, this course will give you the background so that you can manage data scientists and the analytics function and know what they are talking about. You will need to develop the skill, vocabulary, and knowledge to be an intelligent consumer of data and of analytics.

Recommended Textbook:

1. Data Analytics for Accounting. New York, NY: McGraw-Hill Education, 3rd Edition. This is a required textbook that will provide the structure for the class and many of the in-class labs. Either the hard copy of the textbook or e-book is acceptable. Be sure to get access to Connect for this semester. If you rent the book, you may need to purchase Connect separately.

2. Data Analytics Using Excel Microsoft 365: This is an optional textbook that provides the foundation for Excel knowledge. ISBN: 978-1-4533-3759-2

Supplementary materials, including lecture slides, articles, and other items of interest will be posted on the course Canvas page.

Office Hours:

I have office hours on **Tuesday** from **2pm** to **3:30pm**. If you need to see me, but cannot attend scheduled office hours, e-mail, call, or see me for an appointment (give me alternative times that would be convenient for you). These meetings will be much more productive if you come well prepared, and you can express your difficulties in terms of a specific problem or concept covered in class.

Grading:

The course grade is based on problem questions (5% total), quizzes (30% total), final project (20%), labs (40%), and class participation (5%).

		PERCENT OF FINAL GRADE
1.	Problem Questions	5%
2.	Quizzes	30%
3.	Final project	20%
4.	Lab	40%
5.	Class Participation	5%

Problem Questions:

"Problem" questions will be completed through Connect.

Labs:

Students will be given a set of tasks to complete, documenting their process and interpreting their results. **Labs from the textbook must be submitted through Connect unless otherwise noted.** The lab projects could be worked on in groups, but an individual submission must be made of your own work. Turning in the same exact assignment for two or more members in a group is not acceptable. Please contact me if you have additional questions about this.

Remote Desktop:

Several of the labs will use the Dillard's Department Stores dataset. The University of Arkansas (UARK) provides access to this dataset through remote desktop. The instructions for accessing the UARK remote desktop is on Blackboard under "Remote Desktop Instructions". Important Note: Always back up files you create on the remote desktop (e.g., by emailing them to yourself). Files on user accounts may be automatically deleted after some time.

Quizzes:

There will be a total of 3 online quizzes throughout the course. Each quiz will consist of multiple-choice questions and will be posted on Canvas.

Final Project:

Final Project To show proficiency and understanding of data analytics techniques, student teams of two individuals will analyze datasets using the IMPACT framework and create a formal presentation demonstrating the process and results to the class. I will discuss and distribute the final project description during the semester. Final project presentations will be scheduled on the final exam date.

Class Participation:

Students are expected to do the assigned readings and lectures and to participate actively in discussions. In the case of this class, participation is will be through the discussion board; richness of content about the assigned topics will be used to evaluate your participation.

Fairness:

I view being fair across people as one of the most important parts of my job. So, I will not give extra credit or extra assignments to individuals, unless I can do the same for everyone.

Disability Services/Accommodations:

The University is committed to supporting the learning of all students and faculty will provide accommodations as indicated in a Letter of Accommodation issued by the Office of Disability Services (ODS). If you have already registered with ODS and have your letter of accommodations, please share this with me early in the course. If you have or think you have a disability (learning, sensory, physical, chronic health, mental health or attentional), please contact https://success.camden.rutgers.edu/disability-services.

Accommodations will be provided only for students with a letter of accommodation from ODS. Their services are free and confidential. Letters only provide information about the accommodation, not about the disability or diagnosis.

Academic Integrity:

The Academic Integrity policy can be found at
https://studentconduct.rutgers.edu/processes/university-code-student-conduct
http://studentconduct.rutgers.edu/student-conduct-processes/academic-integrity/

Students are responsible for understanding the principles of academic integrity and abiding by them in all aspects of their work at the University. Students are also encouraged to help educate fellow students about academic integrity and to bring all alleged violations of academic integrity they encounter to the attention of the appropriate authorities.

Academic Integrity means that you (the student) must:
- •properly acknowledge and cite all use of the ideas, results, or words of others,
- •properly acknowledge all contributors to a given piece of work,
- •make sure that all work submitted as your own in a course activity is your own and not from someone else
- •obtain all data or results by ethical means and report them accurately
- • treat all other students fairly with no encouragement of academic dishonesty

Adherence to these principles is necessary in order to ensure that:
- •everyone is given proper credit for his or her ideas, words, results, and other scholarly accomplishments
- •all student work is fairly evaluated and no student has an inappropriate advantage over others
- •the academic and ethical development of all students is fostered
- •the reputation of the University for integrity is maintained and enhanced.

Failure to uphold these principles of academic integrity threatens both the reputation of the University and the value of the degrees awarded to its students. Every member of the University community therefore bears a responsibility for ensuring that the highest standards of academic integrity are upheld. Violations are taken seriously and will be handled according to University policy.

Code of Student Conduct:

Rutgers University-Camden seeks a community that is free from violence, threats, and intimidation; is respectful of the rights, opportunities, and welfare of students, faculty, staff, and guests of the University; and does not threaten the physical or mental health or safety of members of the University community, including in classroom space.

As a student at the University, you are expected adhere to the Code of Student Conduct.
To review the code, go to the Office of Community Standards:
 https://deanofstudents.camden.rutgers.edu/student-conduct

Note that the conduct code specifically addresses disruptive classroom conduct, which means *"engaging in behavior that substantially or repeatedly interrupts either the instructor's ability to teach or student learning. The classroom extends to any setting where a student is engaged in work toward academic credit or satisfaction of program-based requirements or related activities."*

Course Schedule:

Date	M/W	Topics
Jan 17	W	Overview of the course. Syllabus Install Excel and Tableau on your laptop. Tableau has a 1-year student license: https://www.tableau.com/academic/students. Verify that you can access the University of Arkansas Remote Desktop. The instructions for this are on Canvas under "Remote Desktop Instructions"
Jan 22	M	Introduction to analytics
Jan 24	W	Master the data (Data Preparation and Cleaning)
Jan 29	M	Master the data (Data Preparation and Cleaning)
Jan 31	W	Master the data (Data Preparation and Cleaning)
Feb 05	M	Master the data (Data Preparation and Cleaning)
Feb 07	W	Quiz 1
Feb 12	M	Modeling and Evaluation
Feb 14	W	Modeling and Evaluation
Feb 19	M	Modeling and Evaluation
Feb 21	W	Visualization
Feb 26	M	Visualization
Feb 28	W	Visualization
Mar 04	M	Visualization
Mar 06	W	Quiz 2
Mar 11	M	Spring break
Mar 13	W	Spring break
Mar 18	M	Audit Analytics
Mar 20	W	Audit Analytics
Mar 25	M	Audit Analytics
Mar 27	W	Management analytics
Apr 01	M	Management analytics
Apr 03	W	Financial Statement Analytics
Apr 08	M	Financial Statement Analytics
Apr 10	W	SAS programming
Apr 15	M	SAS programming
Apr 17	W	SAS programming
Apr 22	M	SAS programming
Apr 24	W	SAS programming
Apr 29	M	Quiz 3

* The schedule is subject to change, depending on how we progress throughout the semester.