

**Seminar in Psychology: Data Analytics**  
**PSYC 4345 007**  
**CRN 17894**  
**Fall 2024**

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Class time: Online asynchronous  
Office hours: Tuesdays, 9:00-11:30 am or upon request  
In 103 Psych or via zoom: <https://utep-edu.zoom.us/j/5366537911>

**For technical questions you can contact the Coursera Learner Help Center at [coursera.org](https://www.coursera.org) (<https://www.coursera.support/s/learner-help-center>).**

### **Course Description**

This course is designed to help the student earn a Google Data Analytics Certificate. The certificate consists of eight individual courses:

- 1) Foundations
- 2) Ask questions to make data driven decisions
- 3) Prepare data for exploration
- 4) Process data from dirty to clean
- 5) Analyze data to answer questions
- 6) Share data through the art of visualization
- 7) Data analysis with R programming
- 8) Google Data Analytics capstone (optional)

Each course consists of a number of “modules” (between 4-5). If you intend to complete the whole certificate (and you should), you will need to do multiple modules per week. You should aim to do a course every two weeks. Courses and modules vary in length, but on average, to complete the certificate, plan to spend about 9 hours per week on completing modules.

Your grade in the course will depend on how many courses you complete (each course is 15 points of your grade, total grade is out of 100 points). In each course, you must complete the quiz at the end of each module and also complete the course challenge quiz at the end of each course. You can do the courses in any order, but they recommend that you go in order.

To encourage you to move forward in the certificate and not leave everything for the end, I’ve scheduled deadlines by which to complete each course. No matter when you complete a course, you’ll receive full credit for it, but if you complete it by the deadline, you’ll receive 5 extra credit points towards your grade.

## Course Objectives

The course will introduce the student to a variety of areas in the field of data analysis. The student will be exposed to concepts and complete projects in the areas of data cleaning, data analysis, data types, data visualization, spreadsheet and database manipulation. You will learn to use the programming languages R and SQL; and learn to perform operations in Excel, Sheets, and Tableau. The student should also be able to think analytically and ethically about data. Finally, the student can choose to complete a capstone project (case study) and to learn about how to apply what you have learned to junior data analyst job interview situations. This certificate is well respected by employers and is worth the considerable effort to complete it.

## Additional Material

See the PowerPoint presentation on Blackboard regarding logging on.

**MOST OF ALL, the course material is within the Google Data Analytics Certificate course itself. It is designed to be a self-contained course from Coursera.** However, you should always access the Coursera modules through the links on Blackboard (not through the Coursera website).

## Recommendations from Google

- 1) Try to complete all items in order. All new information builds on previous lessons.
- 2) Treat every task as if it is real-world experience. Have a mindset that you are working at a company or in an organization as a data analyst. This will help you apply what you learn to the real world.
- 3) Repeat demonstrated tasks on your own for extra practice and speed.
- 4) Even though they aren't graded, it is important to complete all practice items. They will help you build a strong foundation as a data analyst and prepare you for the graded assessments.
- 5) Take advantage of all additional resources provided, including discussion forums and links to external articles for more information.
- 6) When you encounter useful links in the course, remember to bookmark them so you can refer to the information later for study or review.

## Recommendations from me

- 1) Watch the videos all the way through the end. There is often a question or two at the end (or even in the middle).
- 2) Make sure Google records your completed work with a check-mark (on the left hand side of the Coursera screen). The problem I had is the sometimes I would not click the "mark as completed" or some similar button when I had actually finished a segment. Keep this in mind.
- 3) Some of the videos and readings have screenshots or segments that feature different looking dashboards or databases than what you see. Google knows some of the videos/screenshots are a little out of date. They tell you that you should be able to figure things out anyway. Just be aware.
- 4) TAKE NOTES. Each module has an associated quiz at the end. You are likely to forget some of the material as you work your way through the module--- so, take notes. Given the amount of time that it takes to get through a course, there is no way to remember all that material if

you are not taking notes along the way. Also, if you get a job as a data analyst those notes might come in handy then as well (you will not be able to access the course again after the semester ends).

6) Do the assignments they give you in the readings, even when they are optional because you practice by doing and they will help you understand and help with the quizzes. Don't be afraid of making mistakes.

7) Most of the spreadsheet instruction is for Google Sheets (although some are for Excel). Go ahead and use Sheets. It isn't hard to learn and is very similar to Excel.

## Grading

You do not have to complete the entire certificate in order to pass the class. Each completed course will be worth 15 points, as long as you complete it before Dead Day. If you complete it by the suggested deadline, you will receive 5 extra credit points. Coursera will automatically update the grades for me in Blackboard to indicate that you have completed each course, but the updating can be fairly delayed. So you will have to upload screenshots indicating your completion of each course in Blackboard to show me when you complete each one.

**To get an A in the course**, the easiest way is to just complete all courses by the end of the semester (not including the optional capstone), but you can also get an A by completing only 5 of the 7 courses plus getting at least 3 of those 5 in by the deadline to earn the extra credit. **To get a B in the course**, you can complete 6 of the 7 courses by the end of the semester, or complete only 4 of the 7 courses but get all 4 in by the deadline. **To get a C in the course**, you can complete 5 of the 7 courses by the end of the semester, or complete only 4 of the 7 courses plus get 2 of those 4 in by the deadline. If you're confused by this and want to talk it out with me, just come to my office hours and I can explain it.

Besides your grade in the course, you will get a certificate for each course you complete (in addition to the final Google Data Analytics Certificate if you complete everything). This certificate is valued by employers and can go on your resume, so I highly suggest having the goal to finish the entire certificate.

## Discussion Boards

There are discussion boards for each course in Blackboard for you to use to ask questions or discuss things you're having trouble with. This is primarily for student engagement and I encourage you to look on there frequently to see what your classmates are saying and answering any questions you can help with. Use of the discussion boards is optional and meant primarily as a tool for you.

## Office Hours

If you have questions for me, come to my office hours on Tuesdays, from 9:00-11:30 am. You can either come in person to my office or use the zoom link at the top of the syllabus for a virtual meeting. You can ask questions about the course, ask questions about what data analytics jobs look like or career options in data science, ask questions about graduate school in

psychology, or just come to introduce yourself and say hi – I promise I'm not scary!  
Asynchronous classes can be hard to feel engaged in, so even if you just want to stop by each week to say hi and tell me about your progress, please do. You don't need to let me know ahead of time and can just drop in when you feel like it, but if you do send me an email ahead of time, it increases the likelihood that I remember to keep my office door open/keep my eye on the zoom, etc.

### **Suggested Deadlines**

These are the dates that you should have each course completed by and a screenshot uploaded on Blackboard in order to receive extra credit.

Course 1 finished by Sunday, Sept. 8, 11:59 pm  
Course 2 finished by Sunday, Sept. 15, 11:59 pm  
Course 3 finished by Sunday, Sept. 29, 11:59 pm  
Course 4 finished by Sunday, Oct. 13, 11:59 pm  
Course 5 finished by Sunday, Oct. 27, 11:59 pm  
Course 6 finished by Sunday, Nov. 10, 11:59 pm  
Course 7 finished by Sunday, Nov. 24, 11:59 pm  
Course 8 finished by Sunday, Dec. 8, 11:59 pm (optional)

I will take the work completed by Dec. 9 as your final output for the course. In order to verify your grades, I need to account for the fact that it may take a week for your work to show up in Blackboard, which means you need to complete everything before finals week.

Drop Day: Nov. 1