Program description and course syllabus

Hello and welcome! The program you are about to explore is specifically designed to help every type of learner successfully finish the certificate and become an entry-level junior or associate data analyst. No previous data analytics, mathematics, or statistical experience is required. To succeed, you just need to be open to learning how data influences the world.

Become job-ready

Every day, the amount of data out there gets bigger and bigger. So the ability to interpret it effectively is more important than ever before. Data analytics is becoming one of the fastest-growing and most rewarding career choices in the world. In the next decade, the demand for business analytics skills will probably be higher than the demand for any other career (10.9% vs. 5.2%) (Source: Bureau of Labor Statistics). All kinds of companies all over the world need qualified data analysts to solve problems and help them make the best possible business decisions. And right now, fifty-nine percent of companies have plans to add even more positions requiring data analysis skills (Source: SHRM). By the time you are done with this program, you will be well-prepared to make smart, strategic, data-driven recommendations for organizations in all kinds of industries.

During each course of the program, you will complete lots of hands-on assignments and projects based on both day-to-day life and the practical activities of a data analyst. Along the way, you will learn how to ask the right questions and understand objectives. You will also learn how to effectively clean and organize large amounts of data to make it ready for high-quality analysis. On top of that, you will get hands-on experience using all kinds of tools and techniques that will help you recognize patterns and uncover relationships between data points. And to help you communicate the results of your analysis, you will learn how to design visuals and dashboards. There is even an opportunity to create a case study, which you can highlight in your resume to show what you have learned to potential employers.

Course overview

The entire program has eight courses. This is the first course and it covers about five weeks of material.

1. **Foundations: Data, Data, Everywhere** *(this course)*
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: Complete a Case Study

Course content

Course 1– Foundations: Data, Data, Everywhere

1. **Introducing data analytics:** Data helps us make decisions, in everyday life and in business. In this first part of the course, you will learn how data analysts use tools of their trade to inform those decisions. You will also get to know more about this course and the overall program expectations.
2. **Thinking analytically:** Data analysts balance many different roles in their work. In this part of the course, you will learn about some of these roles and the key skills that are required. You will also explore analytical thinking and how it relates to data-driven decision making.
3. **Exploring the wonderful world of data:** Data has its own life cycle, and data analysts use an analysis process that cuts across and leverages this life cycle. In this part of the course, you will learn about the data life cycle and data analysis process. They are both relevant to your work in this program and on the job as a future data analyst. You will be introduced to applications that help guide data through the data analysis process.
4. **Setting up a data toolbox:** Spreadsheets, query languages, and data visualization tools are all a big part of a data analyst's job. In this part of the course, you will learn the basic concepts to use them for data analysis. You will understand how they work through examples provided.
5. **Discovering data career possibilities:** All kinds of businesses value the work that data analysts do. In this part of the course, you will examine different types of businesses and the jobs and tasks that analysts do for them. You will also learn how a Google Data Analytics Certificate will help you meet many of the requirements for a position with these organizations.
6. **Completing the Course Challenge:** At the end of this course, you will be able to put everything you have learned into perspective with the Course Challenge. The Course Challenge will ask you questions about the main concepts you have learned and then give you an opportunity to apply those concepts in two scenarios.

What to expect

Each week of the course includes a series of lessons with many types of learning opportunities. These include:

- **Videos** for instructors to teach new concepts and demonstrate the use of tools
- **Readings** to introduce new ideas and build on the concepts from the videos
- **Discussion forums** to share, explore, and reinforce lesson topics for better understanding
- **Discussion prompts** to promote thinking and engagement in the discussion forums
- **Practice quizzes** to prepare you for graded quizzes
- **Graded quizzes** to measure your progress and give you valuable feedback
- Also, be sure to pay attention to the **in-video questions** that will pop up from time to time. They are designed for you to check your learning.

Everyone learns differently, so this program has been designed to let you work at your own pace. Although your personalized deadlines start when you enroll, they are just a guide. Feel free to move through the program at the speed that works best for you. There is no penalty for late assignments; to earn your certificate, all you have to do is complete all of the work. If you prefer, you can extend your deadlines by returning to **Overview** in the navigation panel and clicking **Switch Sessions**. Assessments are based on the approach taken by the course to offer a wide variety of learning materials and activities that reinforce important skills. Graded and ungraded quizzes will help the content sink in. Ungraded practice quizzes are a chance for you to prepare for the graded quizzes. Both types of quizzes can be taken more than one time.

Optional speed track for those experienced in data analytics

The Google Data Analytics Certificate provides instruction and feedback for learners hoping to earn a position as an entry-level data analyst. While many learners will be brand new to the world of data analytics, others may be familiar with the field and simply wanting to brush up on certain skills.

If you believe this course will be primarily a refresher for you, we recommend taking the practice diagnostic quiz (you can find it in this week's content). It will enable you to determine if you should follow the speed track, which is an opportunity to proceed to Course 2 after having taken each of the Course 1 Weekly Challenges and the overall Course Challenge. Learners who score 100% on the diagnostic quiz can treat Course 1 videos, readings, and activities as optional. Learners following the speed track are still able to earn the certificate.

Tips

- It is strongly recommended to take these courses—and go through the items in each lesson—in the order they appear because new information and concepts build on previous knowledge.
- Use the additional resources that are linked throughout the program. They are designed to support your learning.
- When you encounter useful links in the course, remember to bookmark them so you can refer to the information for study or review.
- Additional resources are free, but some sites place limits on how many articles can be accessed for free each month. Sometimes you can register on the site for full access, but you can always bookmark a resource and come back to view it later.
- If something is confusing, don't hesitate to re-watch a video, go through a reading again, and so on.
- Take part in all learning opportunities to gain as much knowledge and experience possible.

Congratulations on choosing to take this first step toward becoming part of the wonderful world of data analytics. Enjoy the journey!

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