# Course syllabus

Welcome to the fourth course in the program! As you make your way through the certificate, this course and others that follow will begin to focus more attention on practical, hands-on assignments and projects. This progressively increases the amount of time you have to develop important job skills.

In the last course, you worked on some basic skills you will need as an entry-level data analyst. You learned about data structures, and discovered how to obtain, apply, organize, and protect data.

In this course, you will learn to make sure your data is clean by checking it for completeness and correctness. You will review a variety of approaches to clean data in spreadsheets and databases. You will also learn how to verify that your data is clean and how to create reports to communicate that information to others. Ensuring the accuracy and reliability of data is a critical part of a data analyst’s job.

## C​ourse content

C​ourse 4 – Process Data from Dirty to Clean

1. E​nsuring data integrity. Data integrity is necessary to ensure a successful analysis. In this part of the course, you will explore methods and steps that analysts take to check data for integrity. This includes knowing what to do when you have an insufficient amount of data. You will also learn about sample size, avoiding sample bias, and using random samples. All of these measures also help to ensure a successful data analysis.
2. U​nderstanding clean data. Every data analyst wants clean data to work with when performing an analysis. In this part of the course, you will learn the difference between clean and dirty data. You will practice data cleaning techniques in spreadsheets and other tools.
3. C​leaning data using SQL. Knowing a variety of ways to clean data can make an analyst’s job much easier. In this part of the course, you will use SQL to clean data from databases. You will explore how SQL queries and functions can be used to clean and transform your data before an analysis.
4. V​erifying and reporting cleaning results. Cleaning data is an important step in the data analysis process. In this part of the course, you will verify that data is clean and report data cleaning results. With verified clean data, you will be ready for the next step in the data analysis process.
5. (​Optional) Adding data to your resume. Creating an effective resume will help you in your data analytics career. In this part of the course, you will learn all about the job application process. Your focus will be on building a resume that highlights your strengths and relevant experience.
6. C​ompleting the Course Challenge. At the end of this course, you will be able to apply what you have learned in the Course Challenge. The Course Challenge will ask you questions about the key concepts and then will give you an opportunity to put them into practice as you go through prepared scenarios.