

IN COLLABORATION WITH



The Tableau Business and Data Analytics Certificate



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Tableau and Harrisburg University partnered to offer the Tableau Business and Data Analytics Certificate, an online-four course program that will help you gain hands-on experience with analytics tools such as Tableau, MySQL, and Python.

Why Data Analytics?

- + Data analytics skills are highly valued in nearly every industry and increasingly utilized in a range of job functions
- + Entry level business analyst and data analyst jobs have grown 20% annually over the last 5 years and continue to grow
- + These in-demand jobs include: Data Analysts, Business Analysts, Data Scientists, Data Engineers

4 courses | No prerequisites

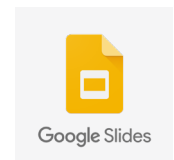
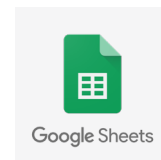
Business Analytics Fundamentals

SQL for Analytics

Data Visualization Foundations

Statistics for Analytics

Hands-on software training, including:



Learn core concepts and technical skills:


Kickstart your journey into the high demand career area of data analytics and its diverse pathways.

Integrate foundational analytics with practical technical skills to analyze and present data.

Develop a portfolio of work in data analytics that can be showcased to potential employers.

Example projects to add to portfolio:

- > **Exploratory data analysis** on real industry data requiring wrangling data, creating visualizations, calculating main characteristics, and developing hypotheses
- > **Scenario-based SQL case study** resulting in an Entity-Relationship Diagram (ERD) of updated database and SQL script containing DDL and DML queries
- > **Dashboard created in Tableau using a given data set**



Learn foundational concepts and technical skills in a project-based, online platform

Practice using analytics tools directly in the learning platform

Get individualized support and feedback from university instructors

Add projects to your portfolio for future employers

Unlock access to individualized career coaching and tools to prepare for the job search

Course 1: Business Analytics Fundamentals

This course will introduce you to the basics of Business and Data Analytics. You will develop your understanding of analytics in the context of a business and gain experience with business framing, stakeholder analysis, metrics, data wrangling, data visualizations, descriptive statistics, exploratory data analysis, and data storytelling in business.

Skills learned:

- > Use business framing techniques for analytical problem-solving process
- > Use spreadsheet software to clean, analyze, and synthesize data
- > Communicate analysis insights to intended audience
- > Represent data and insights in charts and tables

Example projects:

- > Conduct an exploratory data analysis (EDA) on a real dataset to make the business case for additional marketing funding
- > Manipulate raw data using formulas and functions and organize for data visualization

Course 2: SQL for Analytics

This course will introduce you to the basics of SQL. You will learn to identify the role and structure of relational databases as they apply to data analytics, apply the Structured Query Language (SQL) in MySQL for data manipulation language (DML), apply the Structured Query Language (SQL) in MySQL for data definition language (DDL), and apply normal forms (1NF, 2NF, & 3NF) for database normalization.

Skills learned:

- > Manage a relational database for the purposes of data analytics
- > Apply the Structured Query Language (SQL) in MySQL for data manipulation language (DML) and data definition language (DDL)
- > Apply normal forms (1NF, 2NF, & 3NF) for database normalization

Example projects:

- > Assess existing infrastructure of a company's database, apply changes to the database and present insights to stakeholders
- > Write multiple DDL and DML queries ranging in complexity to assess MySQL skills
- > Complete sample technical interview questions in MySQL workbench to prepare for real world interviews

Course 3: Tableau for Analytics

This course will provide you with foundational knowledge on how to use Tableau's software to create data visualizations that convey useful business insights.

Skills learned:

- > Optimize a large data set within Tableau to prepare for efficient manipulation
- > Manipulate data (e.g., join and blend) within Tableau and connect data from other sources (e.g., Excel, SQL database)
- > Create and design Tableau visualizations, dashboards, and stories

Example projects:

- > Create a Tableau Story on a topic of your choice using a large dataset
- > Create dashboard objects and interactive dashboard actions to best communicate key messages
- > Apply visual design best practices to data visualizations in Tableau

Course 4: Statistics for Analytics

This course will teach you to use statistical techniques to analyze data. You'll complete projects using Google Sheets and Python.

Skills learned:

- > Conduct statistical assessments using discrete and conditional probability
- > Develop multiple linear regression models
- > Run A/B tests to test data hypotheses and refine solutions

Example projects:

- > Conduct an exploratory data analysis (EDA) on rideshare data
- > Perform descriptive statistics, create statistical visualizations, calculate probabilities, and deduce statistical inferences using Google Sheets and Python in Google Colab