

# DATA SCIENCE

DURATION - 33 Weeks\*

COURSES - 10



We train our students in analytics, data visualization, predictive modeling using Python, SQL, query and manage data repositories and generate insights. Have the opportunity to identify data patterns and trends using computer science and applied mathematics theories.

## WHAT WE TEACH

- Query existing & create your own databases
- Using Python & R programming to visualize data and analyze data
- Perform machine learning algorithms like k-nearest neighbors, random forest and natural language processing

## WHAT WE PROVIDE

- Courses taught and delivered by industry experts
- Cutting-edge technical skills
- Preparation for dynamic career in data science

Washington Adventist University does not guarantee employment.

## AVAILABLE STACKABLE BADGES & CERTIFICATION

- Created by Industry Experts and Employers
- Curriculum created by industry experts for employers and with instructors meeting college level standards.



Basic Statistics



Programming in R



Data Processing



Visualization



Intermediate Statistics



Machine Learning Modeling



Introduction to Big Data



SQL & NoSQL



DSO109



DSO110

\*For successful full-time enrollment.

## LIVE-VIRTUAL SUPPORT

**Admissions Advisors**  
**Instructors**  
**Success Coach**

**Program Directors**  
**Directors of Education**  
**Mentors**

## COURSE OUTLINE

DSO101	<b>Basic Statistics</b>	Learn what it means to be a data scientist. Understand the basics of data and perform your first analyses and visualizations
DSO102	<b>Statistical Programming</b>	Use R to manipulate, analyze and visualize data
DSO103	<b>Metrics and Data Processing</b>	Learn how to create new metrics for businesses and basics of Agile Project Management
DSO104	<b>Data Wrangling and Visualization</b>	Understand the process of changing structure and format of raw data until the data is compatible with sometimes rigid requirements for analysis and appreciate the power of representing data graphically
DSO105	<b>Intermediate Statistics</b>	Draw insight from data using advanced statistical analyses
DSO106	<b>Machine Learning and Modeling</b>	Predict future events and reduce risk through supervised and unsupervised machine learning and modeling techniques
DSO107	<b>Introduction to Big Data</b>	Learn Big Data concepts like MapReduce and learn Amazon Web Services to use Spark
DSO108	<b>Databases</b>	Learn how to design, store, & manipulate databases. Students will work with both relational (SQL) & non-relational databases
DSO109	<b>Programming Foundations</b>	Learn common programming concepts in Python such as lists, loops, dictionaries and functions
DSO110	<b>Group Project</b>	Solve your own real-world problem using the data analysis techniques of your choosing, then present in front of potential employers