



Data Science Certificate

UWF-REAGAN GLOBAL Partnership

At a glance

Course Length	16 weeks
Workload	3-6 hours/week
Price	\$654/course

The undergraduate certificate in Data Science consists of four courses and is for students interested in statistical, modeling and computational skills. In the program, you'll learn how data impacts society and your particular field.

You'll be able to raise critical questions about and learn methods for optimizing data, its interpretation and its visualization. When the courses are complete, the courses could count as electives in areas of science, business and health or lead to a degree path in Information Technology, Cybersecurity, Computer Science or Mathematics and Statistics. The courses can be completed with no prior statistical or programming background.

1 CAP 5756: Tools for Data Science

Course Description

Gain hands-on knowledge of tools for data science using R, Python, SQL, and Spark. The course provides introductions to several packages in R, particularly Tidyverse, libraries in Python such as NumPy and Pandas, SQL clauses and summary statistics, and Spark framework for distributed computing. You will also learn about RStudio, GitHub, and RMarkdown. To end this course, you will conduct a final project to work on real-world problems.

Instructor: Dr. Achraf Cohen
Course Dates: 8/22/22 - 12/10/22
or 1/9/23 - 4/30/23

2 CAP 5775: Databases for Data Science

Course Description

Organizations can generate copious amounts of data. Extracting useful knowledge from data Warehouses to utilize in decision making can provide a competitive advantage for an organization by identifying strengths and weaknesses. In this course, you will learn data warehouse organization, how to analyze data through analytical queries and apply machine learning algorithms to build predictive models.

Instructor: Dr. Dallas Snider
Course Dates: 8/22/22 - 12/10/22
or 1/9/23 - 4/30/23

3 STA 5126: Statistics for Data Science I

Course Description

This builds the fundamentals of statistics necessary for students to perform and interpret appropriate hypothesis tests using softwares based on the data and research questions at hand.

Instructor: Dr. Aletheia Zambesi
Course Dates: 8/22/22 - 12/10/22
or 1/9/23 - 4/30/23

4 STA 5232: Statistics for Data Science II

Course Description

Statistics for Data Science II is a second course in statistics for students in data science. This course covers the application of regression analysis techniques using softwares for statistical analysis. Broadly, students will learn how to construct statistical models and disseminate predictions and results to a wide audience. There will be a focus on choosing the appropriate modeling strategy for the data and research questions at hand.

Instructor: Dr. Samantha Seals
Course Dates: 8/22/22 - 12/10/22
or 1/9/23 - 4/30/23

Prerequisite: Statistics for Data Science I