

CERTIFICATE IN DATA SCIENCE FOUNDATIONS

An undergraduate certificate introducing students to the basic tools of data science. This certificate is open to all students except Data Science majors, for whom all these courses are required components of the degree program.

Learning Objectives

Upon successful completion, students will be able to:

1. Write simple python programs that can interact with external files to obtain and record information, including web sources.
2. Use python or R packages for data manipulation, data preparation and visualization.
3. Apply inferential reasoning using p-values, significance tests and confidence intervals to real world phenomena.
4. Use R packages for data visualization.

Requirements Effective Fall 2025

Additional coursework may be required due to prerequisites.

Code	Title	Credits
DSCI 335	Inferential Reasoning in Data Analysis	3
DSCI 336	Data Graphics and Visualization	1
STAT 158	Introduction to R Programming	1
Select one course from the following:		2-3
CS 150B	Culture and Coding: Python (GT-AH3)	
CS 152	Python for STEM	
Select one course from the following:		2
DSCI 235	Data Wrangling	
STAT 258	Advanced R Programming	
Program Total Credits:		9-10