

CPSC 110 Python Programming for Humanities and Social Sciences

Spring 2023

The Department of Computer Science is offering a new introduction to Computer Science and Python programming course for students in non-CS majors. No previous programming experience is required.

Distributional Designations

This course can be applied towards the *Quantitative Reasoning* Yale College distributional requirement.

Meeting Information

MW 1 pm -2:15 pm. Location to be announced.

Instructors

Sohee Park, sohee.park@yale.edu AKW 003

Course Description

This multidisciplinary course introduces both fundamentals of computer science and practical approaches to extract knowledge from data. In the first five weeks, students will learn the foundation of Computer Science, Computational Thinking, and the fundamentals of Python programming. During the rest of the semester, students will apply Python programming to the field of Data Science. Students will first learn what Data Science is, and then learn how to preprocess, analyze, and visualize the data. Students will finish the semester with a Data Science project using the data in the areas of students' interests/majors.

Learning Objectives

Students will be able to understand fundamental building blocks of programming, write programming using the Python language, and develop algorithms and solutions to computation problems. Students will also be able to use, analyze and present domain-specific data using Python language and develop computational foundation for research and application development for Humanities and Social Sciences.

Required Materials

How to Think Like a Computer Scientist, Interactive Edition

The Data Science Design Manual (Texts in Computer Science), by Steven S. Skiena, Springer-Verlag

[Syllabus](#) at Canvas | <https://sites.google.com/yale.edu/cpsc110>. Please [contact instructor](#) if you have any questions!



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