

COMPUTATION (COMP)

COMP 101: Coding for Beginners

This course is designed to introduce students to the process of coding. It assumes no background in programming or computer science and is intended for students of all majors who want to learn more about computation. Students will learn the basic syntax of the python programming language and apply that syntax to basic coding problems involving text and data manipulation. Students will learn to solve their own coding problems by consulting online resources and will take the first steps towards learning how to define a computational problem. **Credits:** 1

College: Jefferson College of Humanities & Sciences **Schedule Type:** By Appointment - 1 student, Hybrid, Lab, Lecture

COMP 102: Intro to Scientific Computing Credits: 1

College: Jefferson College of Humanities & Sciences Prerequisites: COMP 101 [Min Grade: B-] Schedule Type: By Appointment - 1 student, Lecture, On-Line

COMP 103: Data Analysis & Visualization Credits: 1

College: Jefferson College of Humanities & Sciences **Prerequisites:** COMP 102 [Min Grade: B-] **Schedule Type:** Lab, Lecture, On-Line

COMP 104: Introduction to Big Data

This course is designed to facilitate continued development of student scientific computing skills using python. It assumes some prior experience with the python language and its scientific computing libraries and is intended for students of all majors who want to develop their scientific computing skills. This course will focus on working with external data sets, the so-called "big data" that underlies current innovation in fields as diverse as the biomedical sciences, business analytics, and the digital humanities. Students will discover the major classes of computational problems that have emerged in the big-data era, will practice importing raw data in diverse formats from public databases, and will apply techniques for cleaning, organizing, and summarizing large data sets.

Credits: 0.5

College: Jefferson College of Humanities & Sciences **Prerequisites:** COMP 103 [Min Grade: B-] **Schedule Type:** Lecture