

Computer Science – Further Computing (CS102-4)

Joshua Maglione

Semester 2 (2025)

Module information:

Meeting Times: Tuesdays 2:00pm – 2:50pm,

Room: Computer Science Building 1007 ([CSB-1007](#)),

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Website: [Canvas](#) and <https://joshmaglione.com/2025CS102-4.html>.

Topics: We will cover the basics of four key topics in this module:

1. Scientific Computing,
2. Data Analysis,
3. Data Visualization, and
4. Machine Learning.

We do this by exploring four ubiquitous Python packages: NumPy, pandas, Matplotlib, and scikit-learn.

Assessment: There will not be any assessment for CS102-4.

Reading: We will go through *Python Data Science Handbook* by Jake VanderPlas. The book is available online: [Python Data Science Handbook](#).

As a secondary source, one might consider *IPython Interactive Computing and Visualization Cookbook, 2nd edition* by Cyrille Rossant. The book is available online: [IPython Cookbook](#).