Python Setup

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Quick Links

- Python Setup Slides
- Tutorial 1: Python Installation & Setup
- Tutorial 2: Create Python Project from Scratch
- Tutorial 3: Import Existing Python Project

1. Overview

This repository contains tutorials to walk you through installing Python and getting started with your first Python project on your own computer.

There are many ways to install and run Python. Here, we provide instructions for our recommended set up for new Python users that involves:

1. installing and using the coding editor and IDE (Integrated Development Environment) software **Visual Studio Code**

2. installing and using **uv** to assist in the installation of Python and the creation of reproducible and transportable coding projects (using something called "virtual environments").

3. following computational and coding best practices to set up a Python project.

2. Author

Jeremy Mikecz, Research Facilitation, Dartmouth Libraries January 2026

3. Designed for:

- in-person / virtual instruction
- *or* asynchronous, self-paced learning

...for Python beginners and those who have used Python before and want to learn how to best set it up on their own computer.

4. Learning Objectives

Upon completing the lessons offered here, the student will be able to:

- install and run Python on their local computer, whether it be a Mac, PC, or Linux
- set up a new Python project in Visual Studio Code from scratch following programming and computational best practices.
- import an existing Python project and modify it within VSC.
- write their first markdown file (`README.md`)
- write and run their first Python script and Python Jupyter notebook.

5. Instructor(s) and Years Taught (if taught live)

- Jeremy Mikecz, Research Facilitation (Python Setup, W2026)

6. Other Instructional Information

Level: Beginner

Duration: Estimated time to complete: 2-3 hours (but could vary tremendously)

Pre-requisites:

- 1. User is comfortable navigating through files on their computer

7. Getting Started

To complete the set up tutorial, open the **setup/** folder and do the following in order:

1. Review the 00_setup_slides presentation (optional, but provides from useful background)

2. Complete the Python Setup Tutorial (Notebook 01 in `setup/` folder)

3. Complete the Create a New Python Project from Scratch Tutorial (Notebook 02 in `setup/` folder)

4. Complete the Python Setup Tutorial (Notebook 03 in `setup/` folder)

Required Software

Instructions for installing the following are in the Set Up tutorials outlined in Step 7 above.

- **Python** (version 3.12 or higher)
- **Visual Studio Code**
- **uv** (package manager)

Acknowledgements

[Credit any sources, contributors, or funding sources]

Template Information: This repository was created using the Python Tutorial Template (created by Research Facilitation, Dartmouth Libraries).