

COM6018 Data Science with Python

Lab 1: Introduction to Python

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In this lab

- Introduction to Python
- Working with Jupyter Notebooks

Lab Demonstrators

There are three Graduate Teaching Assistants (GTAs) who are here to help you with the labs.

- Robbie Sutherland
- Ali Alsari
- Guannan Lou

If you are stuck or need help, please just raise a hand.

Today's Lab

If you have cloned the module's GitHub repository then you should see,

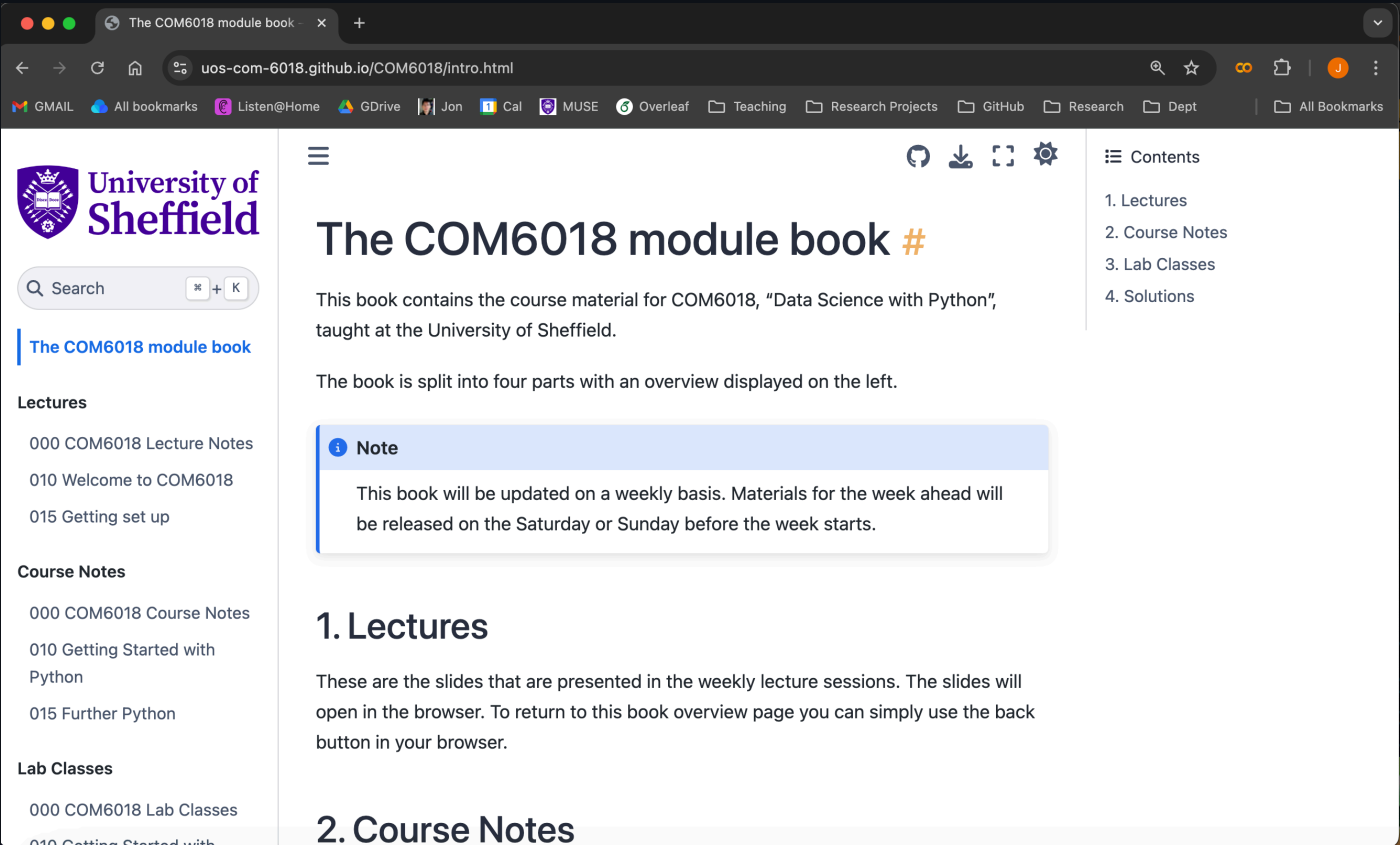
```
materials/labs/  
├── 000_Introduction.md  
├── 010_python_intro.ipynb  
├── data  
│   ├── Mine_Dataset.xls  
│   ├── ch4.csv  
│   └── co2.csv
```

The lab is notebook is the file `010_python_intro.ipynb`

Or you can find it at <https://uos-com-6018.github.io/COM6018/>

The Jupyterbook Website

<https://uos-com-6018.github.io/COM6018/>



Today's Lab

The screenshot shows a web browser window displaying the University of Sheffield COM6018 module book. The page title is "010 Getting Started with Python". The left sidebar contains a search bar and a table of contents with sections: Lectures (000 COM6018 Lecture Notes, 010 Welcome to COM6018, 015 Getting set up), Course Notes (000 COM6018 Course Notes, 010 Getting Started with Python, 015 Further Python), and Lab Classes (000 COM6018 Lab Classes, 010 Getting Started with Python). The main content area shows the title "010 Getting Started with Python" and a description: "This notebook contains a number of exercises that will help you get started with Python. It is not intended to be a comprehensive introduction to Python, but rather a quick introduction to some of the features that you will need for this module." Below this, it states: "At each stage there is a problem described for which you have to implement a solution in the following code cell. There is then a test cell which will run and check that your solution is correct. If it is correct, the test cell will print 'Test passed'. If it is not correct, the test cell will print 'Test failed' and give you some information about what went wrong." The right sidebar shows a "Contents" section with a list of topics: 1 Processing a list, 2 Searching a list, 3 Applying functions to list values, 4 Working with pairs of lists, 5 Working with sets, and 6 Working with dictionaries.

From here you can download the notebook as an ipynb file to run it on your own machine.
Or you can open it on Google Colab.

Running the notebook

Once you have downloaded the .ipynb file, you can run it on your own machine.

```
jupyter notebook 010_python_intro.ipynb
```

Or, if you have installed VS Code, you can open the notebook in VS Code and use the VS Code Jupyter extension.