



LEEDS  
BECKETT  
UNIVERSITY

# Introduction to Programming

## Week 1

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# OBJECTIVE

Welcome to the Module!

Today we will introduce the module, and start some practical work.



# Intro to Programming With Python

Welcome to the module.

In this module, you will learn to write simple programs.

The language we will use is Python.

Python is a free language, widely used in many different applications.

<https://www.python.org/>





# Intro to Programming

## Timetable

### Practical

You are there now!

It lasts three hours, with a break. The last hour is usually for support.

Attendance is compulsory, and is monitored.

### Lecture

The lecture is at 11 on Fridays.

It takes place online, using Microsoft Teams.

Attendance is *optional*, but you should make sure you watch the recording if you do not attend.



# Intro to Programming

## Your Tutor

Your tutor for the practicals is:

Tony Jenkins

E: [a.m.jenkins@leedsbeckett.ac.uk](mailto:a.m.jenkins@leedsbeckett.ac.uk)

G: @TonyJenkins

L: <https://www.linkedin.com/in/tony-jenkins/>

When we meet, please call me Tony!



# Intro to Programming Repository

Program code from practicals will be available here:

**<https://github.com/TonyJenkins/lbu-focp-code-2023>**

You may want to download the code from this *repository*, examine it, and run it.

We will see how to do this later.



# Intro to Programming Books

You do not learn to program by reading a book.

There are some books on MyBeckett, and plenty of videos on YouTube.

The closest "book" to what we will be doing is free, and is here:

**<https://www.tony-jenkins.org.uk/pybook/>**

You are welcome to send feedback, report errors, and so on to the author!



# Intro to Programming

## Tools of the Trade

Python is free.

All the tools we will use in this module are also free.

This means you can easily install everything and work on your on PC if you want.

You can use Windows, Mac, Linux - it really doesn't matter.

In Uni we will use Windows, and an IDE called PyCharm, but you will see other setups in use. Other tools are available at Uni.

Your tutor generally uses PyCharm on Linux (Mint).





# Intro to Programming

## Tools of the Trade

It is important to make your tools *yours*.

You have probably met apps that offer light mode or dark mode. The tools we use here go well beyond this in terms of customisation.

We all have preferences for colours, fonts, location of menus, shortcuts, and so on.

You will need to spend time customising the tools. Most will offer to sync settings across different installations.

You will probably see that your tutor's IDE does not look too much like the default!



# Intro to Programming

## Your Code

As we go through the module you will generate Python code.

You will want to be able to work on this code from different places.

**By default, PyCharm will store your code on the drive inside the PC in front of you.  
This is almost certainly not what you want.**

Your network (P:) drive is an alternative, but is fiddly to access outside Uni.

A USB stick is not an option, because you will lose it (or someone will steal it).

Therefore we will use an Internet-based store, GitHub.



# Intro to Programming

## GitHub

You will need an account on GitHub in order to complete the work for this module.

Head there now, and have a look around.

Then, create an account.

Be careful!

If you are serious about programming, the account you are creating could stay with you for the next 30 or 40 years!

**Your Tutor is on GitHub as: @TonyJenkins**



# Intro to Programming

## GitHub on the Web

Now to see what Git does.

Git stores work in *repositories*.

Create one now (the name does not matter). Include a README file.

Changes in files lead to new versions, which form *commits*. A commit is usually a known useful version of a file or bunch of files. A *commit message* explains what has changed.

Experiment with editing the README while on GitHub. Make a few commits.

*Don't worry. You can't break it!*



# Intro to Programming

## Git Locally

Take a note of the URL of your repo. You want the HTTP one. It will be something like:

**<http://github.com/TonyJenkins/delete-me.git>**

Now open Git on your PC. The easiest way is via "Git Bash".

Now you can clone the repo to your PC. Make sure to do this on your P: drive.

```
$ git clone http://github.com/TonyJenkins/delete-me.git
```

(You will be prompted for GitHub username and password).



# Intro to Programming

## Git Locally

You should see that your README is now held locally.

Now, make a change to the file. Anything will do. Use Notepad.

To send the file back to GitHub (in GitBash):

```
$ git add README.md  
$ git commit -m "Test Edit"  
$ git push
```

And go back to GitHub, and you *should* see the new file.

Repeat this a few times so you've got the idea.



# Hello, World

## The First Program

The first program anyone ever writes in any new programming language is the same.

This program is in Python.

```
print('Hello, World')
```



# Hello, World

## The First Program

The first program anyone ever writes in any new programming language is the same.

This program is in Python.

A complete version of this program in Python looks like this.

Let's try to enter this in your tutor's preferred environment and get it to run.

```
#!/usr/bin/env python3
```

```
if __name__ == '__main__':  
    print('Hello, World')
```

**Watch carefully. Take notes!**





## NEXT

Start to work through the practical from MyBeckett.

If you want, get your own development environment set up. And then practice writing very small programs.

# Thank you



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