1811/2807/7001ICT Programming Principles
Workshop 1

School of Information and Communication Technology
Griffith University

Module	1
When	Workshop 1
Goals	In this workshop we practice using the Python REPL.
Marks	0
Due	All activities to be completed by the end of this workshop.

1 Preparation

Before your workshop class:

- Read all of this document.
- Read the lecture notes sections 1 to 4 and watch the associated videos.
- Complete the Griffith Science Laboratory Induction if you have not done so in the last year.
- Bring some paper (a print-out of this document is best) and writing implements.

2 Pre-workshop questions

There are no pre-workshop questions for this workshop, but there will be for most of the following workshops. The pre-workshop questions must be answered and submitted electronically *before* the start of the workshop.

3 Workshop activities

3.1 Griffith Sciences Lab Induction

If you are taking an on campus lab, please show us that you have completed this induction within the last year, by workshop 2. If you complete the rest of the activities with time to spare, you can complete the test at the end of this workshop.

3.2 The Python 3 REPL

There are many ways to access the Python REPL. The ones we are most likely to use are:

1. directly from the console of a PC (Windows Command Prompt, or MacOS or Linux Terminal);
2. from within an integrated Development Environment (IDE) such as PyCharm; or
3. in a web page, such as https://repl.it.

Many students find the on-line REPL environments (option 3) convenient at first, but as our programs become more complex and must interact with data files, they make the work harder or even impossible. We must be able to work on a local machine as soon as possible.

The machines in our labs have Python 3 installed on them, and we have requested that it be made available on the command line (option 1, Command Prompt and Terminal), but at the time of writing we can't be sure that has happened yet. So if that is not available we can use option 2 (PyCharm).

At any stage, when you are stuck, *ask your tutor*!

3.2.1 Log in

Log into the lab computer, using either Windows or Mac (if available and you prefer). Use your normal Griffith user and password.

3.2.2 Open a console

On Windows, open the Command Prompt app. There are two shortcuts on the desktop. Use the one just named Command Prompt.

On Mac, open the Terminal app.

3.2.3 See if the REPL is available from the command line

On Windows, type `python` in the console.

On Mac, type `python3`. Remember `python` is version 2, and not useable for us.

If these commands work, and launch the REPL, great! If they don't we'll use PyCharm.

3.2.4 Open the REPL in PyCharm

1. Open the PyCharm app.
2. Choose menu item File ▶ New Project.... Name it anything you want, or just leave it "`untitled`". We need to do this to set up a Python working environment, but we are not going to create any files in it today.
3. Click (left on Mac, right on Windows) on the small box in the very bottom left of the PyCharm window. A menu should pop up. Choose Python Console.

You should now be presented with the Python REPL prompt (`>>>`), and be able to type expressions and call functions.

4 Next!

The next workshop has some questions that must be completed in writing *before* the start of the workshop. Start them now, while the tutor is here to help.