

# SCIT

School of Computing & Information Technology

## CSCI376 – Multicore and GPU Programming

---

### Software Instructions

---

#### Microsoft Visual Studio

Download and install Visual Studio **2022**. You can download it from the following link:

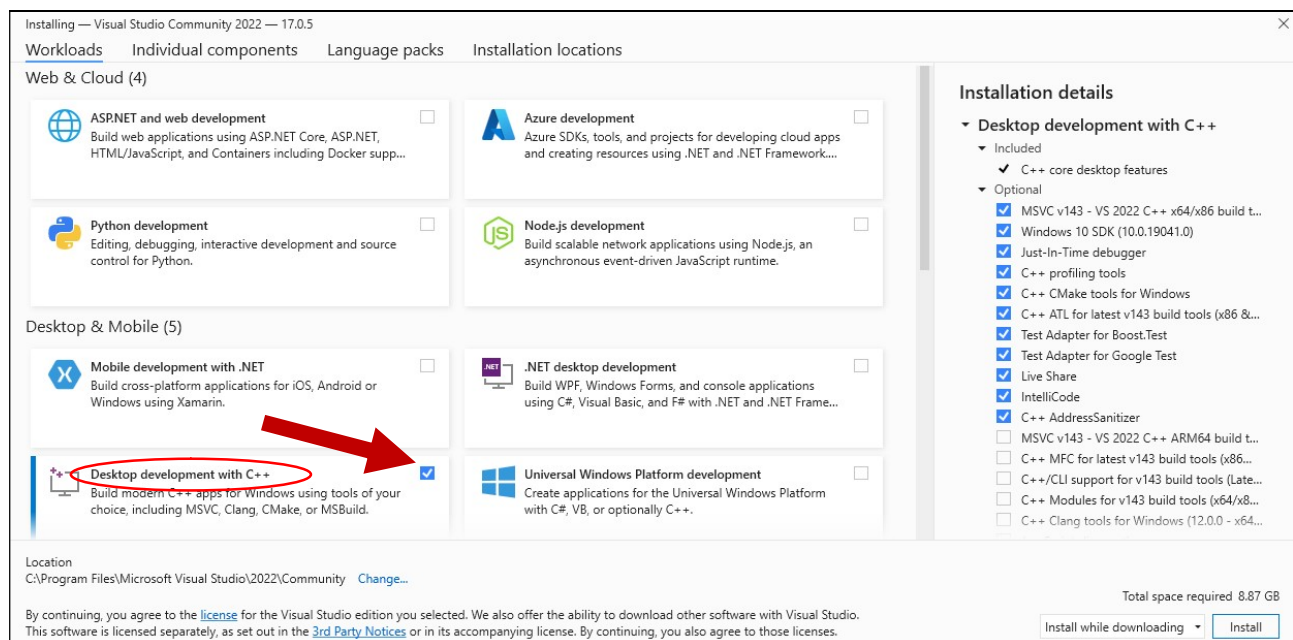
<https://visualstudio.microsoft.com/downloads/>

Download the **Community** version, which is free for students and individuals. You will need to sign in with your UOW email address or create/sign in with a free account (otherwise you can only use it for 30 days).

Follow the instructions and install it. Depending on what options you choose to install, the download and installation can be quite large.

You will only require C++ for this subject. Note that **C++ is NOT installed by default**.

Make sure you **check the C++ checkbox**:



## OpenCL

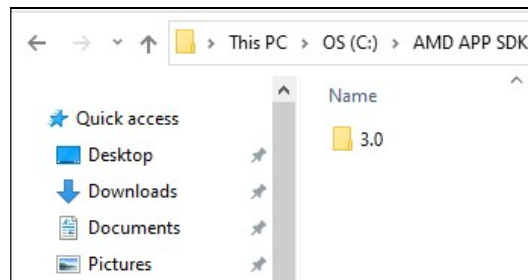
**Check whether your system can run OpenCL** using the GPU\_CAPS\_Viewer program (provided on Moodle).

To do this, run GpuCapsViewer.exe and look at the OpenCL tab to see what platforms and devices are available.

If GPU\_CAPS\_Viewer does not display any platforms and devices, you may need to update your drivers.

## AMD OpenCL Library

Unzip the content of the AMD APP SDK.zip file into the C drive of your computer. You should see the following in C:\AMD APP SDK



A Test.zip file has been provided for you to test whether you can compile and run a Visual Studio project that uses OpenCL.

## Troubleshooting

**DO NOT** do this if your system can already run OpenCL programs.

**ONLY IF** GPU\_CAPS\_Viewer does not display any platforms and devices:

If you are using Intel processors and your system cannot run OpenCL programs, install the following runtime driver:

Intel CPU Runtime for OpenCL Applications 18.1 for Windows OS (64bit or 32bit)

[https://software.intel.com/en-us/articles/opencl-drivers#latest\\_CPU\\_runtime](https://software.intel.com/en-us/articles/opencl-drivers#latest_CPU_runtime)

Alternatively, an older version (15.1) has been made available on Moodle.