Seneca CPR101 — Week 1

Course Introduction, File Systems, Visual Studio demo

CP4P_Course-Intro.pptx CP4P_File-Systems-and-Visual- Studio.pptx	Lecture PowerPoint slides
CP4P_Introduction-Activity- Instructions.pdf	Activity Instructions Read this after the PPT slides. Then read it again.
CP4P_Visual-Studio-demo.pdf VS Code on macOS.pdf	Also see Getting Started. There is much there to show and demonstrate the step-by-step documentation in the demo file.
CP4P_Introduction-Activity- Answers.docx	Your activity answers go in this document. This is the only file to be submitted.
Useful supporting information below	
Visual Studio Terminal cmd line.pdf	transfer, compile, run on matrix server via command line from within Visual Studio
CP4P_File-systems-and-mounting.pdf	Knowledge of file systems is less and less necessary on personal computers, smartphones, and tablets. However, it is critical for ICT people to know in a server environment.
CP4P_Visual-Studio-Installation.pdf	Install Visual Studio (IDE or Code) on your computer
CP4P_Windows-File-Explorer.pptx	Windows File Explorer info
CP4P_Keyboard-Shortcuts-Windows- and-Visual-Studio.pptx	Keyboard shortcuts info
CP4P_Keyboard-Shortcuts_Visual- Studio.pdf	Keyboard shortcuts walkthrough & reference
Five shortcuts to boost your productivity in VS	from the Microsoft developer blogs
Visual Studio keyboard shortcuts.pdf	VS keyboard shortcuts will save you time
Windows Keyboard Shortcuts.pdf	Windows keyboard shortcuts will save you time

Notes

Filenames starting with CP4P indicate 'Computer Principles for Programmers'.

Begin by reading the Activity Instructions. Then read it again.

If you are not making progress after rereading the slides and activity details, email your instructor with details and <u>screen shots</u> of the point you are stuck on. See Faculty Contact Information in Blackboard. Microsoft Teams allow us to share screens and discuss issues in real time; it works best when the Teams app is installed locally instead of through a browser.

If you want to make any editorial comments on the lecture, the activity, or things in general, please feel free to do so at the top of your activity answers document. When you save that file, feel free to use your own naming convention.

This first topic of Computer Principles for Programmers helps you get a running start at your C programming course by using the Visual Studio programming tool. VS Code is a very similar option.

Follow Up Quiz

- There is a weekly quiz following each week's topic.
 - Your professor will announce the timebox when the weekly quiz will be available.
 - Quiz questions are based on the slides found in the weekly PowerPoint and what you did in the
 weekly Activity assignment. The notes found under the slides, and supplemental slides at the end
 of the deck, are for further explanation and investigation, but those details will not be examined
 in the quiz.
- Quiz 1 on last week's topic includes questions on...
 - Windows and Visual Studio IDE keyboard shortcuts
 - Sorry, macOS and VS Code or Xcode users. It is based on lab PCs which everyone has access to. It is also what almost all of the software development industry uses.
 - File systems
 - specify the full path for a file within a sample folder/directory structure
 - memory and data storage types and drives

If ICT was simple, easy, and quick, then no one would pay us to do it.

ICT is a discipline which often needs much explanation. (ICT = Information and Communications Technology)

- ICT always requires attention to detail such as reading all the documentation carefully. There is no <u>TL;DR</u> in ICT. This course is no exception.
- You are now a professional ICT person. You are being paid to do it, paid in marks, but paid nevertheless so you are a professional who reads everything carefully.
- There are many steps in the first two weeks' activities many of which are specific to Windows but translatable to macOS.
- Visual Studio IDE runs only on the native Windows platform. (on macOS, use Bootcamp to dual boot or run Windows and VS IDE in a virtual machine with Parallels)
 - Visual Studio Code runs cross-platform and is the future direction of VS IDE, but VS Code is not yet the ICT industry standard.
 - VS Code does have sufficient features for the introduction to programming with C course.
- You do not need a Windows PC to be successful at Seneca, but you do need to be able to run the Windows Operating System at times, and in your future career as an IT professional. You can do that at most PCs available at Seneca.
- Our programs cover all major Operating Systems (IBM, Linux, Windows), we even have Apple iOS mobile development courses. Today's IT organizations at the Enterprise level all use IBM Z mainframes / IBM Power midrange; Linux or IBM AIX for unix workloads; MS Windows Server, MS Windows PC (95% of industry desktops), and sometimes Apple and/or BYOD (Bring Your Own Device).

Worth a look

<u>PBS</u>, <u>Crash Course in Computer Science</u>, Harvard's <u>CS50</u>, <u>course site</u>, <u>youtube channel</u>, perhaps the best intro to Comp Sci on the planet. A <u>review</u> of CS50 from someone who knows.

Should we fear artificial intelligence? Steven Pinker says...

Don't confuse intelligence with dominance: a designed intelligence isn't necessarily imbued with megalomania. Hopefully, the latter would be designed out. Will humans be collateral damage after AI takes over? Only if...

- 1. humans are so gifted that they can design an omniscient and omnipotent AI, yet so idiotic that they would give it control without testing how it works, and
- 2. the AI would be so brilliant that it could figure out how to transmute elements, rewire brains and other superpowers, yet so imbecilic that it would wreak havoc based on elementary blunders of misunderstanding.