

122COM: Module information

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Overview

1 Module structure

2 Recap

10 credit module. Full coursework evaluation

- Phase test 1 in Week 5 (20%)
- Phase test 2 in Week 11 (20%)
- ALL project (60%)
 - 122COM component of your ALL project.
 - Alternative project for retake students.
 - Alternative project for Jan starters.

CS, COM, EH & GT

- 1 C++ intro
- 2 Algorithms
- 3 Searching
- 4 SQL
- 5 Phase test 1
- 6 C++ intermediate
- 7 Pointers
- 8 Data structures
- 9 Sorting
- 10 Testing
- 11 Phase test 2

ITB & MC

- 1 C++ intro
- 2 Algorithms
- 3 Searching
- 4 SQL
- 5 Phase test 1
- 6 Mini project $\frac{1}{2}$
- 7 Mini project $\frac{2}{2}$
- 8 Data structures
- 9 Sorting
- 10 Testing
- 11 Phase test 2

Order of topics may change.

New topic introduced each week with lecture. Accompanied with practical coding exercises to be completed during the lab.

- Pre-lab work each week will be set (same as 121COM).
 - Not optional (same as 121COM).
- Material will be marked using traffic light system (same as 121COM).
 - Understanding green material required to pass module.
 - Understanding yellow material should produce good mark.
 - Red material is advanced, for students with previous coding experience or students looking to stretch themselves. It is not testable.

Assuming you have working knowledge of Python3.

C++14 introduced during the module

- Majority of students expected to work in C++.
- Tested on C++ syntax during phase tests.

BIT/ITB and Multimedia Computing students

- Expected to complete some C++ labs
- Will not be asked questions regarding C++ syntax during phase tests.
- Can be asked generalised questions re. differences C++ & Python.

Intended Learning Outcomes

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- 1 Write software to solve a range of problems.
- 2 Implement and use simple searching and sorting algorithms.
- 3 Use libraries to extend the functionality of the base language.
- 4 Use basic design and testing strategies.

The module runs in one semester over 11 weeks.

- 2 hours contact time a week as single lecture/lab block.
 - Students expected to spend additional 4 hours self study.
- Additional support available as part of programming support centre
 - <https://gitlab.com/coventry-university/programming-support-lab/wikis/home>

There is no required reading for this module.
However, the following resources can be recommended.

■ Python

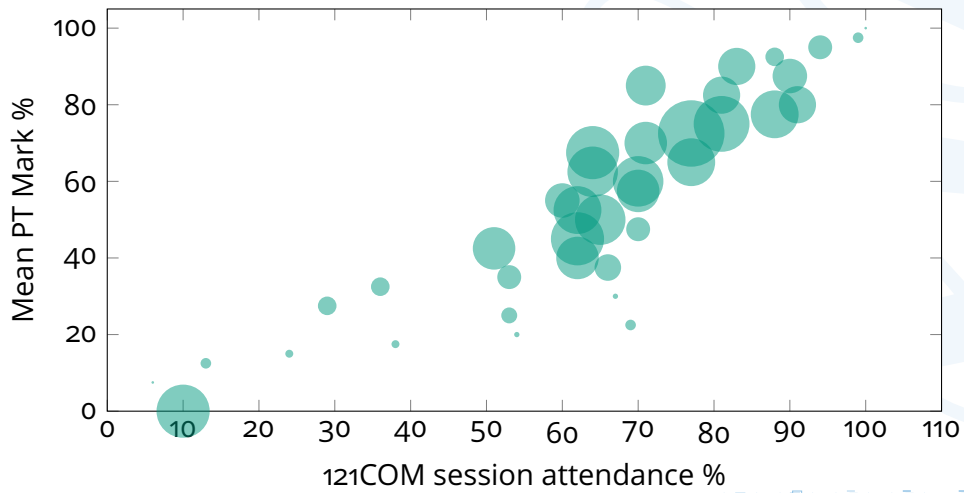
- Learning Python, 5th Edition. Mark Lutz, O'Reilly.
- Automate the Boring Stuff with Python, Al Sweigart. Free PDF version online.
- The 121COM material and reading list.

■ C++

- C++ Programming In Easy Steps, 4th Edition. Mike McGrath.
- Penguin programmer - An excellent beginners C++ guide.
<http://www.penguinprogrammer.co.uk/c-beginners-tutorial/>.
- Learncpp - A more advanced C++ guide that goes into greater depth.
<http://www.learncpp.com/>

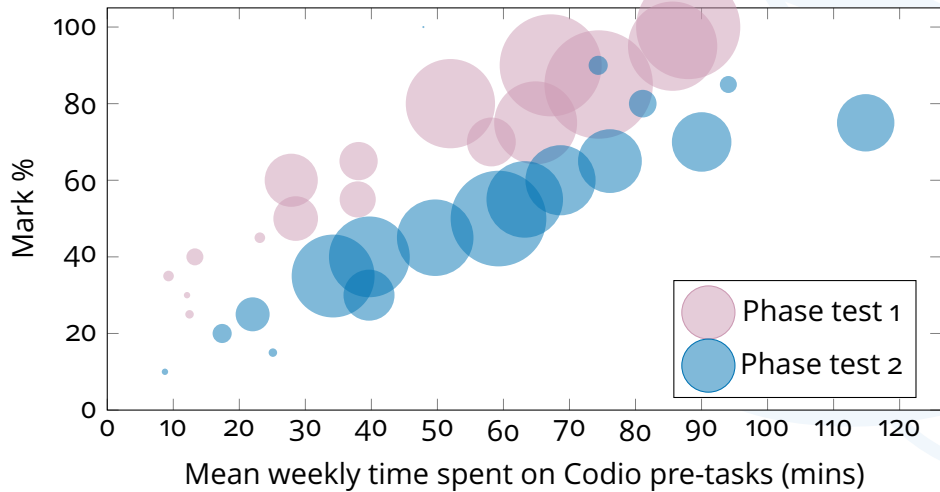
Expected to have a working understanding of Python for this module.
If didn't attend or do the 121COM work then need to catch up ASAP.

121COM engagement 2017-18 September starters.



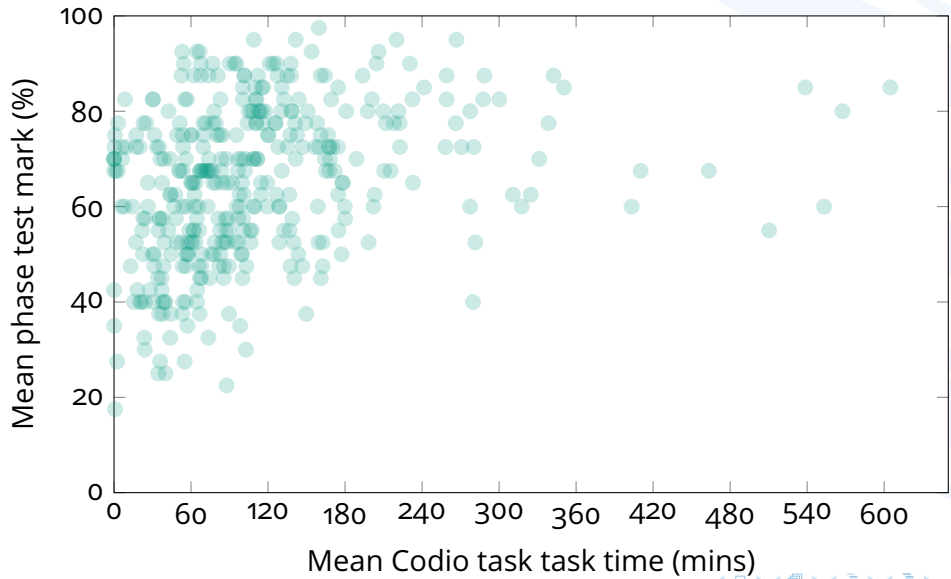
Do the work. Do **NOT** wait until the last week/s of term.

122COM results 2016-17 September starters.



Last year no-one that did the work failed the phase tests.

122COM results 2016-17 September starters.



Any Questions?