

## Important information concerning the withdrawal of programming languages for COMP1 after the 2010 examination

Due to the low take up of some programming languages listed in the specification for COMP1, AQA has decided to withdraw three of the eight programming languages after the 2010 examination.

**NB: After the 2010 examination there will be one more opportunity for candidates to re-sit in June 2011 using any of the languages. Candidates are at liberty to enter the examination for the first time in June 2011 on the clear understanding that there will be no opportunity to re-sit this examination in the three languages that are being withdrawn.**

The languages that will be completely withdrawn after the 2011 examination are:

- PHP
- C#
- C

We hope that the teachers who are affected by this announcement will change to one of the remaining languages for 2011. These are:

- Java
- Pascal/Delphi
- Python 2.6
- Python 3.1
- Visual Basic 6
- VB.NET 2008

Most programming language packages include extensive help facilities and examples. However, there are many books and Internet sources offering free courses for these four languages. Here, for example, are some of the ones that we have come across.

### Java

There are links to publishers of books for learning Java on the website given below. Java is currently the preferred language on many UK university CS courses and is taught in the first year. However, many UK universities are considering switching to an alternative for their first year courses as has happened in the US. You have to consider carefully whether you should be teaching a language that could very well be taught in HE.

<http://www.java4schools.org.uk/>

### Pascal/Delphi

Pascal/Delphi is highly recommended because it was designed specifically to teach programming and problem solving - see <http://uva.onlinejudge.org/> - and it is stable. Its event-driven forms-based object Pascal manifestation, Delphi, has excellent support for a range of applications from networking through graphics to databases. Delphi is still rated as the world's best RAD system and is used extensively throughout the world for commercial application development.

'Learning to Program in Pascal and Delphi' by Sylvia Langfield. Published in 2003 by Payne-Gallway (now Pearson Education, Oxford). ISBN: 978-1904467298. This book is in two parts. The first part covers learning

Pascal and the second part covers learning event-driven, forms-based programming in Object Pascal, i.e. Delphi.

Pascal: <http://pascalprogramming.byethost15.com/index.php>

Delphi: <http://www.festra.com/freetutor/>

Delphibasics available from [www.delphibasics.co.uk](http://www.delphibasics.co.uk)

### **Python**

<http://wiki.python.org/moin/BeginnersGuide> is a good starting point for both versions of Python and has links to a variety of other sources.

Python 3.0 resources: Non-Programmer's Tutorial for Python 3.0

[http://en.wikibooks.org/wiki/Non-Programmer%27s\\_Tutorial\\_for\\_Python\\_3.0](http://en.wikibooks.org/wiki/Non-Programmer%27s_Tutorial_for_Python_3.0)

<http://www.greenteapress.com/thinkpython/html/> links to a useful online book (free), 'Think Python: How to Think Like a Computer Scientist' by Allen B. Downey

'Head First Programming' by: David Griffiths and Paul Barry. Published by O'Reilly Media, Inc. in December 2009. ISBN-13: 978-0-596-80237-0. This book is thought to be very accessible for students.

### **Visual Basic 6**

'Visual Basic for A Level Computing' by Bob Reeves & Dave Fogg. Published in 2005 by Hodder Murray. ISBN: 0340889217. A good book.

<http://www.programmingtutorials.com/vb6.aspx>

### **VB.NET**

'Microsoft® Visual Basic® 2008 Step by Step' by Michael Halvorson. Published by Microsoft Press in 2008. ISBN: 978-0735625372. This is definitely a good VB.Net book, but it has nothing on console mode applications in it. A teacher could use it to learn the language and it would be useful for students on the A2 course.

'Learning Visual Basic.Net' by Jesse Liberty. Published by O'Reilly in 2003. ISBN: ISBN 0-596-00386-2. This book refers to console mode applications (used in COMP1). It is not recommended for use with students. The book uses an older version of .net, although the examples should work in the newer versions as well.

<http://msdn.microsoft.com/en-us/vbasic/default.aspx>