



**UNIVERSITY
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Goldsmiths
UNIVERSITY OF LONDON

BSc and CertHE in Computing and Related Subjects

Introductory booklist
2018–19

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Introduction

We have produced the following booklist to help prepare you for your studies on the Computing and Information Systems (CIS) or Creative Computing (CC) programmes. It is available on the Computing VLE homepage:

<https://computing.elearning.london.ac.uk>

The home page can be accessed via the University of London International Programmes Student Portal (<http://my.londoninternational.ac.uk>).

The books listed provide an introduction to the subjects you are likely to be studying in your first year. They will also be referred to as you progress through those subjects. We advise you, therefore, to buy or borrow these texts if you want to make an early start to your studies.

Remember – this is just the starting point. We will expect you to read widely in order to benefit fully from your studies. You will also find an Extended booklist on the VLE. The subject guides we send you when you register will give details of other books and journals you will need to consult. Please remember to check the VLE regularly for updates.

The Introductory booklist includes some general background reading, a list of useful publications, and some Level 4 books that constitute Essential reading for the following five full courses:

C01102	Mathematics for computing	(CIS and CC)
C01108	Information systems: foundations of e-business	(CIS)
C01109	Introduction to Java and object-oriented programming	(CIS and CC)
C01110	Introduction to computing and the internet	(CIS and CC)
C01112	Creative computing I: Image, sound and motion	(CC)

Note: Unless otherwise stated, all websites were accessed on 31 May 2018.

General books

The following is a list of general books that are not related directly to any particular course.

Avison, D. and G. Fitzgerald *Information systems development: methodologies, techniques and tools*. (McGraw-Hill, 2006) 4th edition [ISBN 9780077114176 (pbk)]. This book provides an introduction to the CIS programme.

Boden, M.A. *The creative mind: myths and mechanisms*. (Routledge, 2003) 2nd edition [ISBN 9780415314534 (pbk)]. This book provides an introduction to the CC programme.

Dewdney, A.K. *The new Turing omnibus: 66 excursions in computer science*. (Palgrave Macmillan, 2003) [ISBN 9780805071665 (pbk)].

Harel, D. and Yishai A. Feldman *Algorithmics: the spirit of computing*. (Addison Wesley, 2004; Springer, 2012) 3rd edition [ISBN 9780321117847 (pbk; Addison Wesley); 9783642272653 (hbk; Springer)].

Other useful publications

The following journals are a good introduction to computing and cover developments in the field. Students will find it useful, therefore, to refer to these journals, or others like them, wherever possible.

- Communications of the ACM
- ACM computing surveys
- SIGCSE bulletin (for staff at institutions; not for students)

All of the above can be obtained from:

Association for Computing Machinery

Email: acmhelp@acm.org

www.acm.org

<http://drdobbs.com>

Any easily available general interest weekly or monthly computing magazines would also be useful. Examples of the type of magazine (these are not the only suitable ones) are:

Computer Weekly

www.computerweekly.com

Wired

wired.co.uk

Publisher: Condé Nast

Level 4 books for CIS and CC

C01102: Mathematics for computing

The subject guide for this course gives a complete account of the course, in two volumes, but you may want to supplement this by reading an alternative account of some topics, and by working through additional examples and exercises. References are given in the subject guide to the following two books, which are particularly suitable as regards coverage, level and clarity of presentation.

Epp, S.S. *Discrete mathematics with applications*. (Boston, MA: Brooks/Cole Cengage Learning Inc, 2011) 4th edition [ISBN 9780495391326 (hbk); 9780495826163 (pbk)].

As the material in the 4th edition has been reorganised, the subject guide's references to the above book have been mapped to the 4th edition and details are available on the Computing VLE.

Molluzzo, J.C. and F.A. Buckley *A first course in discrete mathematics*. (Long Grove, IL: Waveland, 1997) reprinted 2004 [ISBN 9780881339406 (hbk)].

C01108: Information systems: foundations of e-business

Laudon, J.P and K.C. Laudon *Management information systems: managing the digital firm*. Global edition. (Pearson Education, 2015) 15th edition [ISBN 9781292211756 (pbk)].

The above book is Essential reading for the course.

Alter, S. *Information systems: foundation of e-business*. (Upper Saddle River, NJ: Prentice Hall, 2001) 4th edition [ISBN 9780130617736 (hbk): out of print] or (Upper Saddle River, NJ: Prentice Hall, 2001) 4th edition [ISBN 9780130432421 (pbk): out of print].

CO1109: Introduction to Java and object-oriented programming

Web address for installing Java:

www.oracle.com/technetwork/java/index.html

The subject guide gives a complete account of the course. The tutor does not recommend a particular textbook but suggests that students wishing to buy a book do so after learning a little Java so that they can choose, from the many books available, one that particularly suits them.

Some possible book choices are listed below.

Bailey, D.A. and D.W. Bailey *Java elements: principles of programming in Java*. (McGraw-Hill International edition, 2000) [ISBN 9780071163538 (pbk)]. The following website may also be useful: www.cs.williams.edu/

Charatan, Q. and A. Kans *Java – in two semesters*. (McGraw-Hill, 2009) 3rd edition [ISBN 9780077122676] (pbk)].

Deitel, H. and P. Deitel *Java – how to program (early objects)*. (Pearson, 2014) 10th edition; Global edition [ISBN 9781292018195 (pbk/ebook online)].

Downey, Allen B. *How to think like a computer scientist – Java programming*. (Createspace, 2009) [ISBN 9781441419200 (pbk)].

Think Java: how to think like a computer scientist. (Green Tea Press, 2012) is available at: <http://greenteapress.com/thinkapjava/index.html>

Felleisen, M. and D.P. Freidman *A little Java, a few patterns*. (MIT Press, 1998) [ISBN 9780262561150 (pbk)].

The following Sun Microsystems, Inc. website may be useful as you will be able to look up information about Java classes and methods:

www.oracle.com/technetwork/java/javase/documentation/index.html

CO1110: Introduction to computing and the internet

CO1110 Part A

Stallings, W. *Computer organization and architecture: designing for performance*. (Pearson Education, 2015) 10th global edition [ISBN 9781292096858 (pbk)]. See the author's website for updates and useful information: <http://williamstallings.com/>

The above book is Essential reading for the first half of the CO1110 course.

CO1110 Part B

Buchanan, W. *Mastering the internet*. (Macmillan, 1997) [ISBN 9780333692615 (pbk)]. This book describes, at an introductory level, the communication protocols used by the Internet as well as the basics of Java programming and Javascript.

Casad, J. *Sams teach yourself TCP/IP in 24 hours*. (Indianapolis, IN: Sams Publishing/Pearson Education, 2011) 5th edition [ISBN 9780672335716 (pbk)]. This covers most of the subject matter of the second part of the course at an appropriate level of detail and is not difficult to read, being designed as a self-study text.

Shelly, G.B., D. Woods and W. Dorin *HTML, XHTML, and CSS*. (Course Technology Cengage Learning, 2010) 6th edition [ISBN 9780538747462 (pbk)].

There is a vast number of books available on web page coding (HTML, XHTML, CSS, Javascript, etc.). If you decide to purchase a textbook, make sure it covers both XHTML and CSS. The following book provides detailed coverage of XHTML, CSS and Javascript and has a companion website: www.elizabethcastro.com/html/

Castro, E. *HTML, XHTML and CSS*. (Peachpit Press/Pearson Education, 2006) 6th edition [ISBN 9780321430847 (pbk): out of print].

Useful web addresses

For information about the General Data Protection Regulation (GDPR) and Data Protection Act 2018 you should refer to documents available at the website of the UK Information Commissioner:

<https://ico.org.uk/for-organisations/guide-to-data-protection/>

There is also a guide to data protection in the EU, available from:

https://ec.europa.eu/info/law/law-topic/data-protection/data-protection-eu_en

Specialist magazines such as *net* have regular tutorial features on all aspects of web design and authoring (www.creativebloq.com/net-magazine).

Recommended reading

Comer, D. *The internet book: everything you need to know about computer networking and how the internet works*. (Prentice Hall/Pearson Education, 2006) 4th edition [ISBN 9780132335539 (pbk)].

Legal and professional issues are not particularly well covered in introductory computing textbooks, and when computer science texts do address these issues they tend to do so from a US perspective, which is not appropriate for this course. On the other hand, legal textbooks covering computer law have tended to be rather expensive and difficult for the non-specialist to follow. A notable exception is listed below. Despite being aimed at law students it is quite accessible to the non-lawyer and provides some coverage on the technicalities of ‘eCrime’.

Rogers, K.M. *The Internet and the Law*. (London: Palgrave Macmillan, 2011) [ISBN 9780230235670 (pbk)].

C01112: Creative computing I: Image, sound and motion

Reas, C. and B. Fry *Processing: a programming handbook for visual designers and artists*. (MIT Press, 2007) [ISBN 9780262182621 (hbk)]. There is a 2nd edition available: (MIT Press, 2015) [ISBN 9780262028288 (hbk)]. However, note that the subject guide makes reference to the 1st edition of this book and that chapter references in the new edition may be different.

The above book is Essential reading for the course.

Other texts

Glassner, A. *Processing for visual artists: how to create expressive images and interactive art*. (Natick, MA: A.K. Peters, 2010) [ISBN 9781568817163 (pbk)].

Maeda, J. *Creative code: aesthetics + computation*. (Thames & Hudson, 2004) [ISBN 9780500285176 (pbk): out of print].

Reas, C. and B. Fry *Getting started with processing*. (Beijing; [Cambridge, MA]: O’Reilly, 2010) [ISBN 9781449379803 (pbk): out of print].

Shiffman, D. *Learning processing: a beginner’s guide to programming images, animation, and interaction*. (Morgan Kaufmann/Elsevier 2015) 2nd edition [ISBN 9780123944436 (pbk)].

Note that the website listed as Essential reading on p.vi of the *Creative Computing 1: image, sound, motion Volume 1* subject guide can now be found at the following address:

<http://turnbull.mcs.st-and.ac.uk/~history/>