

Textbooks for Computer Science 2011

100 Level Papers

COSC110 (Recommended) – *Course cancelled this year because of the February Earthquake*

- Beekman/Quinn, "Tomorrow's Technology and You" (eighth or ninth edition).

COSC121 (Required text)

- Practical Programming: An Introduction to Computer Science Using Python, Campbell, Gries, Montojo and Wilson. Pragmatic Bookshelf, 2009

COSC122 (Required text)

- Problem Solving with Algorithms and Data Structures using Python" by Bradley Miller and David Ranum.

200 Level Papers

COSC261 (Recommended)

- Michael Baron, Probability and Statistics for Computer Scientists, Chapman and Hall/CRC, 2006.
- William Stewart, Probability, Markov chains, queues, and simulation, Princeton University Press, 2009
- Michael Spiser, Introduction to the Theory of Computation, 2nd ed., Course Technology 2005.
- Seymour Lipschutz and Marc Lipson, Schaum's Outline of Discrete Mathematics 3rd ed, McGraw-Hill, 2007.

COSC262 (Recommended)

- Goodrich and Tamassia (recommended text), Algorithm Design, John Wiley & Sons, 2002.
- Horowitz, Sahni, and Rajasekaran, Computer Algorithms, Macmillan, 1997 (or newer Editions.
- Cormen, Leiserson, Rivest, and Stein, Introduction to Algorithms, 3rd edition, The MIT Press, 2009.

COSC263 (Recommended)

- Cay Horstmann. Big Java. J. Wiley & Sons, 4th edition, 2010.
- Brett D. McLaughlin, Garry Pollice, and David West. Head First Object-Oriented Analysis & Design. O'Reilly, 2007.
- R.S. Pressman. Software Engineering: A Practitioner's Approach. McGraw-Hill, 6th edition, 2005.
- I. Sommerville. Software Engineering. Addison-Wesley, 9th edition, 2011.

COSC264 (Recommended)

- Stallings, W. *Data and Computer Communications*, 8th edition, Prentice Hall (this textbook is likely to be used in COSC 331, too)
- Tanenbaum, A. S., *Computer Networks*, 4th edition, Addison Wesley, 2004
- □Gallager, Robert G., *Principles of Digital Communication*, Cambridge University Press, 2008.

COSC265 (Recommended)

- Fundamentals of Database Systems (5th edition), Ramez Elmasri & Shamkant Navathe, Addison-Wesley, 2007.

300 Level Papers

COSC324 & COSC325 (Recommended)

- I Sommerville, "Software Engineering" 9th edition (Addison-Wesley).
- Martin Fowler, "UML Distilled: A Brief Guide to the Standard Object Modelling Language" (Addison-Wesley) 3rd Edition 2004 (Addison-Wesley).
- Martin Fowler. Refactoring: Improving the Design of Existing Code. Addison- Wesley, 1999.
- Dean Leffingwell: Scaling software agility : best practices for large enterprises. Addison-Wesley 2007
- N.E. Fenton and Shari Lawrence Pfleeger. Software Metrics: A Rigorous & Practical Approach International Thompson Computer Press, 2nd edition, 1997

- M. Page-Jones. The practical guide to structured systems design. Yourdon Press Computing Series.
- E Gamma, R Helm, R Johnson and J Vlissides. Design Patterns: Elements of Reusable Object-Oriented Software. Addison-Wesley, 1995
- Charles F Godfarb and Paul Prescod. Charles F Goldfarb's XML Handbook. Prentice Hall, 5th edition, 2004
- Neil Bradley. The XML Companion. Addison-Wesley, 3rd edition, 2002. Safari Tech Books Online.
- Martin Fowler, UML Distilled: A Brief Guide to the Standard Object Modelling Language. Addison-Wesley, 3rd edition, 2004.
- Kevin Howard Goldberg. Visual Quickstart Guide XML. Peachpit Press, 2nd edition, 2009.
- R.S. Pressman. Software Engineering: A Practitioner's Approach. McGraw-Hill, 6th edition 2005.

COSC326 (Text)

- R Elmasri, & S Navathe " Fundamentals of Database Systems" 5th Edition(Addison-Wesley) 2007

COSC327 (Recommended)

- Ng, Chee Hock, "Queueing Modelling Fundamentals" (Wiley, 1996).
- A Law & W Kelton, "Simulation Modelling and Analysis" (McGraw-Hill, 1991).
- W Kreutzer, "System simulation: programming styles and languages". Addison-Wesley
- M. K. Molloy, "Fundamentals of Performance Modelling". MacMillan.
- Chee Hock Ng, "Queueing Modelling Fundamentals". Wiley
- Trivedi; "Probability and Statistics with Reliability, Queueing and Computer Science applications" 2nd edition (Wiley)
- K. Kant, "Introduction to Computer System Performance Evaluation". McGraw-Hill.

COSC329 (Recommended)

- E Horowitz, S Sahni, and S Rajasekaran, "Computer Algorithms" (Computer Science Press 1998).
- Rob Callan, "Artificial Intelligence", (Palgrave)

COSC331

- Course Reader (Data Communication and Networks) available LEARN (Required)
- William Stallings, "Data and Computer Communications", 7th or 8th Edition (Pearson/Prentice Hall) (Recommended)

COSC332

- Course Reader (Data Communication and Networks) available from LEARN (Required)
- Harrington, J. "Network Security" (Elsevier Publishing)
- Stallings, W. "Network Security Essentials" (Prentice Hall)

COSC361 (Recommended)

- Brown SI, Vranesic ZI, "Fundamentals of Digital Logic with VHDL Design" 3rd Edition (McGraw Hill)
- Furber S. ARM system-on-chip architecture, 2nd edition, Addison-Wesley, 2000
- Wakerly, JF, Digital Design – Principles and Practices, 3rd Edition, Prentice Hall, 2000
- Patterson, D.A. & Hennessy, J. L., Computer Organisation & Design – The Hardware Software Interface, Morgan Kaufmann Publishers Inc., 1994
- Ashenden, P J., The Desgijher

COSC363 (Recommended)

- David Shreiner., "OpenGL Programming Guide" 7th Edition (Addison-Wesley)
- F.S. Hill, S.M. Kelley, Computer Graphics Using OpenGL, 3rd edition Prentice Hall 2006

COSC365 (Recommended)

- Beginning Visual C# 2008, Watson, Nagel, Pedersen, Reid, Skinner, White, Wiley, 2008. (recommended Text)
- Programming WCF Services, Juval Lowry, O'Reilly 2009

Additional Reading:

- George Coulouris, Jean Dollimore, and Tim Kindberg. "Distributed Systems: Concepts and Design". Addison-Wesley, 2nd edition, 1994. Later editions exist.
- Martin Fowler. "Patterns of Enterprise Application Architecture". Addison-Wesley, 2003
- James McGovern, Oliver Sims, Ashish Jain, and Mark Little. "Enterprise Service Oriented Architectures: Concepts, Challenges, Recommendations". Springer, 2006.