

**NANYANG TECHNOLOGICAL UNIVERSITY
SCHOOL OF COMPUTER ENGINEERING**

**CE7427 ADVANCED TOPIC IN COGNITIVE NEUROSCIENCE & EMBODIED
INTELLIGENCE**

Prescribed Text

Randall C. O'Reilly, Yuko Munakata, *Computational Explorations in Cognitive Neuroscience : understanding the mind by simulating the brain*, Cambridge, 2000 (QP360.5.R66)

Other References

Gee-Wah Ng, *Brain-Mind Machinery Brain-Inspired Computing and Mind Opening*, World Scientific, 2009 (QA76.87.N576B)

Bernard J. Baars and Nicole M. Gage, *Cognition, Brain, and Consciousness : introduction to cognitive neuroscience*, Academic Press, 2007 (QP360.5.C676CB)

R. Pfeifer, J.C. Bongard, *How the Body Shapes the Way We Think: A New View of Intelligence*, The MIT Press, 2007 (Q335.P525H)

Timothy T. Rogers i James L. McClelland, *Semantic Cognition: A Parallel Distributed Processing Approach*, The MIT Press, 2004 (RC521.R729)

Rolf Pfeifer, Christian Scheier, *Understanding Intelligence*, The MIT Press, 2001 (Q335.P525)

Jeff Hawkins, Sandra Blakeslee, *On Intelligence*, Times Books, 2004 (QP376.H393)

CE 7491 SPECIAL ADVANCED TOPIC-DIGITAL IMAGE PROCESSING

Prescribed Text

Gonzalez & Woods, *Digital Image Processing*, Prentice-Hall, 2nd Edition 2002
(Call no: TA1632.G643 2002).

CM102 HOW COMPUTERS WORK

Prescribed Text

Peter Norton, *Peter Norton's Introduction to Computers*, McGraw Hill , 6th Edition
(Call no: QA76.5.N886 2006)

CM103 APPLYING IT

Prescribed Text

James A. O'brien, *Introduction to Information Systems*, McGraw-Hill, 12th Edition
(Call no: HF5548.2.B13 2008)

**NANYANG TECHNOLOGICAL UNIVERSITY
SCHOOL OF COMPUTER ENGINEERING**

James A. Senn, *Information Technology Principles, Practices, Opportunities*, Pearson Prentice Hall, 3rd Edition (HF5548.2.S478 2004)

Other References

Stephen Haag etc., *Computing Concepts*, McGraw-Hill, 2nd Edition (QA76.H111 2004)

Larry Long and Nancy Long, *Computers Information Technology in Perspective*, Pearson Prentice Hall, 12th Edition (QA76.9.C66L848)

Ronald Thompson etc., *Information Technology and Management*, McGraw-Hill, 2nd Edition (HD30.2.T475)

E. Wainright Martin et. al., *Managing Information Technology*, Pearson Prentice Hall, 5th Edition (T58.6.M266MIT 2005)

George Beekman and Michael J. Quinn, *Computer Confluence: Tomorrow's Technology and You*, Pearson Prentice Hall, 7th Edition (QA76.5.B414CC)

Gee Kin Yeo etc., *ICT and Our Society*, McGraw-Hill, 2nd Edition. (HC79.I55I17)

CPE101 ELECTRONICS I / ELECTRONICS PRINCIPLES

Prescribed Textbook

J.David Irwin, *Basic Engineering Circuit Analysis*, Wiley 9th Edition.
(Call no: TK454.I72 2008)

Robert Boylestad & Louis Nashelsky, *Electronic Devices and Circuit Theory*, Prentice Hall latest 10th Edition (TK7867.B792 2009)

Other Reference

J.David Irwin, *Basic Engineering Circuit Analysis*, Wiley 9th Edition.
(TK454.I72 2008)

CPE102/CSC102 INTRODUCTION TO PROGRAMMING

Prescribed Textbook

Hui Siu Cheung, *Introduction to Java Programming*, Prentice Hall 2005 2nd Edition
(Call no: QA76.73.J38.H899 2005)

Other Reference

Lewis J. & Loftus W., *Java Software Solutions – Foundation of Program Design*, Addison Wesley 2009 6th Edition (QA76.73.J38.L674 2009)

Liang, Y.D., *Introduction to Java Programming, Comprehensive Version*, Prentice Hall 2009 7th Edition.
(QA76.73.J38.L693 2009)

**NANYANG TECHNOLOGICAL UNIVERSITY
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Deitel, H.M., and Deitel,P.J., *Java How to Program*, Prentice Hall 2010, 8th Edition.
(Call no: QA76.73.J38D325 2010)

Savitch, W., *Java: An Introduction to Computer Science and Programming*, Prentice Hall 5th Edition 2008.
(QA76.73.J38.S267 2008)

**CPE103 MATHEMATICS I
CSC103 FOUNDATION MATHEMATICS**

Prescribed Textbook

Thomas G.B., Weir M.d., Hass, J. and Giordano F.R., *Thomas Calculus*, Pearson-Addison-Wesley 11th Edition 2005 (Call no: QA303.T456 2005)

Howard, A., and Rorres, C., *Elementary Linear Algebra*, Wiley & Sons 9th Edition 2005 (QA184.A634 2005)

Freund, J.E., Perles, B.M., *Modern Elementary Statistics*, Prentice Hall, 12th Edition 2007
(QA276.12.F889 2007)

Other Reference

Stewart.J., *Calculus*, Thomson Brooks/Cole, 6th edition 2008.(QA303.2.S849 2008)

Hardy. K, *Linear Algebra for Engineers and Scientists Using MATLAB*, Prentice Hall 1st Edition 2005.
(QA184.2.H269)

Mendenhall, W., Beaver, R.J. and Barbara B.M. , *Introduction to Probability and Statistics*, Thomson Brooks/Cole 13th Edition 2009 (QA276.M5371 2009)

Johnson. R.A., *Miller & Freund's Probability and Statistics for Engineers*, Prentice Hall International, 7th Edition 2005 (TA340.M648 2005)

CPE104 / CSC104 LOGIC DESIGN

Prescribed Textbook

Ronald J. Tocci, Neal S. Widmer and Gregory L. Moss, *Digital Systems: Principles and Applications*, Pearson Prentice Hall 10th edition 2007 (Call no: TK7868.D5.T631 2007)

Other Reference

M. Morris Mano, *Digital Design*, Prentice-Hall International, 4th edition 2007
(TK7888.3.M285 2007)

John P.Hayes, *Introduction to Digital Logic Design*, Addison-Wesley, 1993 (TK7888.4.H417)

**NANYANG TECHNOLOGICAL UNIVERSITY
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CPE105 / CSC105

DATA STRUCTURE AND OBJECT-ORIENTED PROGRAMMING

Prescribed Textbook

Y.D. Liang, *Introduction to Java Programming*, Prentice Hall, Core Version, 5th Edition 2005
(Call no: QA76.73.J38.L693 2005)

Y.D. Liang, *Introduction to Java Programming*, Prentice Hall, Brief Version, 7th Edition 2009
(Call no: QA76.73.J38.L693 2009)

Frank M. Carrano, Janet Prichard, *Data Abstraction and Problem Solving with Java, Walls and Mirrors, Updated Edition*, Addison Wesley, 2nd Edition 2006. (QA76.73.J38.C312 2006)

Other Reference

Harvey M. Deitel, Paul J. Deitel, *Small Java: How to Program*, Prentice Hall, 6th Edition, 2005.
(QA76.73.J38D325s)

Sarwar, Koretsky, Sarwar, *Linux: The Textbook*, Addison Wesley, 2002.
(QA76.76.O63.S251)

Wu: *An Introduction To Object-Oriented Programming With Java*, McGraw Hill, 5th Edition, 2010
(QA76.64.W959 2010)

John R. Hubbard, *Schaum's Outline of Data Structures with Java*, Prentice Hall, 2005 (QA76.73.J38.F11)

Timothy Budd, *Understanding Object-Oriented Programming with Java: Updated Edition*. Addison Wesley, 2000. (QA76.64.B927)

William H. Ford, William R. Topp, *Data Structures with Java*, Prentice Hall, 2005. (QA76.73.J38.F711)

CPE106

MATHEMATICS II

Prescribed Textbook

Mandal, M. and Asif, A., *Continuous and Discrete-time Signals and Systems*, Cambridge University Press, 1st Edition 2007 (Call no: QA402.M271)

Other Reference

Hsu, Hwei P., *Signals and Systems*, (Schaum's outlines series) McGraw-Hill, 1995 (TK5102.92.H873)

Oppenheim, A. V., Willsky, A.S. & Nawab, S.H., *Signals & Systems*, Prentice Hall, 2nd Edition 1997.
(QA402.P62 1997)

Balmer, L., *Signals and Systems: An Introduction*, Prentice-Hall 2nd Edition 1997.
(TK5102.5.B194 1997)

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O'Neil, P.V., *Advanced Engineering Mathematics*, International Thomaon Pub.Co., 6th Edition 2007.
(TA330.N58 2007)

Philips, C.L., Parr J.M. & Riskin, E.A., *Siganls, Systems, and Transforms*, Prentice-Hall, 4th Edition 2008
(TK5102.9.P558 2008)

CPE110 / CSC110 C LANGUAGE PROFICIENCY

Prescribed Textbook

S.C. Hui, *Introduction to C Programming*, Prentice Hall, 2002 (Call no: QA76.73.C15.H899)

Other Reference

H.M. Deitel and P.J. Deitel, *C How to Program*, Prentice Hall, 5th edition 2007 (QA76.73.C15.D325 2007)

Tomasz Muldner, *C for Java Programmers*, Addison Wesley, 2000 (QA76.73.C15.M954c)

CPE183 / CSC183 ENGINEERS AND SOCIETY

Prescribed Textbook

Kemper, J.D, *Engineers & Their Profession*, Reserve. (Call no: TA157.K32 2001)

Sandhu, E.K. & Wheatley, P., (eds), *Management of Success: The Moulding of Modern Singapore*, ISEAS, SP, 1989. (DS598.S762.M266)

SP, *Journey Into Nationhood*, National Heritage Board. (DS610.4.S617J)

George, Fernandez Joseph, *Successful Singapore: A Tiny Nation's Saga From Founder to Accomplisher*, Singapore: SS Mubarak, 1992. (DS598.S75.G34T)

Ernest C.T. Chew and Edwin Lee, *A History of Singapore*, Singapore: Oxford University Press, 1991.
(DS598.S7.H673)

Videos

1. "SP Overcoming the Odds", [electronic resource], (G560975)
2. "Days to Remember", [electronic resource], (B560656)

CPE184 / CSC184 HUMAN RESOURCE MANAGEMENT & ENTREPRENEURSHIP

Prescribed Textbook

Gary Dessler, *Management: Principles and Practices for Tomorrow's Leaders*, Prentice Hall, 3rd Edition, 2004. (Call no: HD31.D475MP)

**NANYANG TECHNOLOGICAL UNIVERSITY
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Other Reference

Thomas H. Cormen, Charles E. Leiserson and Ronald L. Rivest, *Introduction to Algorithms*, McGraw Hill & MIT Press, 2001. (QA76.6.C811 2001)

CPE205 / CSC205 OPERATING SYSTEM

Prescribed Textbook

Abraham Silberschatz, Peter Baer Galvin, Greg Gagne, *Operating System Concepts*, J. Wiley & Sons, 8th edition, 2010. (Call no: QA76.76.O63S582 2010)

Other Reference

Andrew S. Tanenbaum, *Operating Systems: Design and Implementation*, Prentice Hall International, 3rd Edition, 2006. (QA76.76.O63T164 2006)

William Stallings, *Operating Systems: Internals and Design Principles*, Pearson Education, 6th Edition, 2009. (QA76.76.O63S782 2009)

CPE207 SOFTWARE ENGINEERING

Prescribed Textbook

Bernd Bruegge & Allen H. Dutoit, *Object-Oriented Software Engineering: Using UML, Patterns, and Java*, Prentice Hall, 2nd edition, 2004 (Call no: QA76.758.B889B)

Other Reference

Grady Booch, James Rumbaugh, Ivar Jacobson, *The unified modeling language user guide*, 2nd edition, Addison-Wesley, 2005 (QA76.76.D47B724 2005)

James Rumbaugh, Ivar Jacobson, Grady Booch, *The Unified Modeling Language Reference Manual*, Addison-Wesley, 2nd edition, 2005. (QA76.76.D47R936 2004)

Gerald V. Post, David L. Anderson, *Management Information System : Solving Business Problems with Information Technology*, McGraw-Hill, 4th edition, 2006. (HD30.213.P857 2006)

Ivar Jacobson, *Object-Oriented Software Engineering: A Use Case Driven Approach*, Addison-Wesley, 1993. (QA76.64.B12S)

Doug Rosenberg, Kendall Scott, *Use Case Driven Object Modeling With UML: A Practical Approach*, Addison-Wesley, 1999. (QA76.9.O35R813)

Alistair Cockburn, *Surviving Object-Oriented Projects: A Manager's Guide*, Addison Wesley, 1998. (QA76.9.O35C665)

Grady Booch, *Object-Oriented Analysis And Design With Applications*, Addison-Wesley, 3rd Edition, 2007. (QA76.64.B724 2007)

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CPE208 INSTRUMENTATION AND DATA ACQUISITION

Prescribed Textbook

Curtis D. Johnson, *Process Control Instrumentation Technology*, Prentice Hall, 8th edition, 2006 (Call no: TS156.8.J66 2006)

Robert L. Boylestad, and Louis Nashelsky, *Electronic Devices and Circuit Theory*, Prentice Hall, 10th edition, 2009. (TK7867.B792 2009)

Robert F. Coughlin, Frederick F. Driscoll, *Operational Amplifiers and Linear Integrated Circuits*, Prentice Hall, 6th edition, 2001 (TK7871.58.O6C854 2001)

Ramakant A. Gayakwad, *Op-amps and Linear Integrated Circuits*, Prentice Hall, 4th Edition, 2000 (TK7871.58.O6G285 2000)

CSC101 INTRODUCTION TO COMPUTER SYSTEMS

Prescribed Textbook

Forouzan, B. and Mosharraf, F., *Foundations of Computer Science*, Cengage Learning 2nd Edition 2008 (Call no: QA76.F727)

Brookshear, J., *Computer Science: An Overview*, Addison-Wesley 10th Edition 2009. (QA76.B873 2009)

CSC106 DISCRETE MATHEMATICS

Prescribed Textbook

Susanna S. Epp, *Discrete Mathematics with Applications*, Thomson-Brooks/cole, 3rd Edition 2004 (Call no: QA39.2.E64 2004)

Ralph P. Grimaldi, *Discrete and Combinatorial Mathematics: An Applied Introduction*, PearsonAddison Wesley, 5th Edition, 2004. (QA39.2.G861 2004)

Other Reference

Rosen Kenneth H., *Discrete Mathematics and Its Applications*, McGraw Hill, 6th Edition 2007 (QA39.2.R813 2003)

CSC202 ALGORITHMS

Prescribed Textbook

Sara Baase & Allen Van Gelder, *Computer Algorithms*, Addison Wesley, 3rd Edition, 2000. (Call no: QA76.6.B111 2000)

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SCHOOL OF COMPUTER ENGINEERING**

Other Reference

Thomas H. Cormen, Charles E. Leiserson and Ronald L. Rivest, *Introduction to Algorithms*, McGraw Hill, 1990. (QA76.6.C811 2001)

Jon Kleinberg, Eva Tardos, *Algorithm Design*, Addison-Wesley, 2006 (QA76.9.A43K64)

Richard Johnsonbaugh, Marcus Schaefer, *Algorithms*, Pearson Prentice Hall, 2004. (QA76.9.A43J65)

CSC206 / CPE303

DATABASE SYSTEMS

Prescribed Textbook

Ramez Elmasri, Shamkant B. Navathe, *Fundamentals of Database Systems*, Pearson Addison Wesley, 5th edition, 2007 (Call no: QA76.9.D3E48 2007)

CSC207

SOFTWARE ENGINEERING

Prescribed Textbook

Christopher Fox, *Introduction to Software Engineering Design: Processes, Principles, and Patterns with UML2*, James Madison University, 2007 (Call no: QA76.758.F791)

Martin Fowler, *UML Distilled: A Brief Guide to The Standard Object Modeling Language*, Addison-Wesley Professional, 2004. (QA76.9.O35R787 2004)

Other Reference

Pressman, Roger S. *Software Engineering: A Practitioner's Approach*, McGraw-Hill Higher Education, 7th edition, 2010. (QA76.758.P935S 2010)

Sommerville, Ian, *Software Engineering*, 8th edition, Addison-Wesley, 2007.
(QA76.758.S697 2007)

Ghezzi, Carlo, Mehdi Jazayeri and Dino Mandrioli, *Fundamentals of Software Engineering*, Prentice Hall, 2nd edition, 2003. (QA76.758.G421 2003)

Tsang, Curtis H.K., Lau, Clarence S.W., and Leung, Ying K., *Object-Oriented Technology : From Diagram to Code With Visual Paradigm for UML*, McGraw-Hill, 2005. (QA76.9.O35T877)

Craig Larman, *Applying UML and Patterns: An Introduction to Object-Oriented Analysis and Design and Iterative Development*, Prentice Hall, 3rd edition, 2005. (QA76.9.O35L324 2005)

Simon Bennett, Steve McRobb, and Ray Farmer, *Object-Oriented Systems Analysis and Design Using UML*, McGraw-Hill, 3rd edition, 2006. (QA76.9.O35B472 2006)

E. Yourdon, *Death March*, Prentice Hall PTR, 2nd Edition, 2004. (QA76.76.D47Y81DM)

**NANYANG TECHNOLOGICAL UNIVERSITY
SCHOOL OF COMPUTER ENGINEERING**

SC206 / CPE206

MICROPROCESSOR SYSTEM DESIGN

Prescribed Textbook

Yukiho Fujisama, *The Introduction to The H8 Microcontroller*, Ohmsha, Ltd.

(Call no: TK7887.F961)

Other Reference

Jonathan W. Valvano, *Embedded microcomputer systems: real time interfacing*, Thomson, 2nd edition, 2007. (TK7895.E42V215 2007)

SC208 / CSC204 / CPE411

**COMPUTER GRAPHICS / COMPUTER GRAPHICS IN
DESIGN**

Prescribed Textbook

Alexei Sourin, *Computer Graphics: From A Small Formula to Cyberworlds*, Pearson Prentice Hall, 2nd edition, 2006. (Call no: T385.S724C 2006)

SC302 / CPE302

COMPUTER NETWORKS

Prescribed Textbook

William Stallings, *Data and Computer Communications*, Prentice Hall, 8th edition, 2007

(Call no: TK5105.S782 2007)

Andrew S. Tanenbaum, *Computer Networks*, Prentice Hall PTR, 4th edition, 2003

(TK5105.5.T164 2003)

Other Reference

James F. Kurose, *Computer Networking: A Top-Down Approach*, Addison Wesley, 4th edition, 2008.

(TK5105.875.I57K96 2008)

Alberto Leon-Garcia, Indra Widjaja, *Communication Networks : Fundamental Concepts and Key Architectures*, McGraw-Hill Higher Education, 2nd edition, 2004. (TK5101.L579 2004)

W. Richard Stevens, *TCP/IP Illustrated, Vol 1*, Addison-Wesley Pub. Co., 1994

(TK5105.55.S846 V1)

Douglas E. Comer, *Internetworking with TCP/IP, Vol 3: Client-Server Programming and Applications Windows Sockets Version*, Prentice Hall, 2001. (TK5105.585.C732 VOL.3 2001)

**NANYANG TECHNOLOGICAL UNIVERSITY
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SC401/CPE426 REAL TIME SYSTEM

Prescribed Text

Alan Burns and Andy Wellings, *Real-Time Systems and Programming Languages*, Addison Wesley, 3rd Edition 2001. (Call no: QA76.54.B967 2001)

C M Krishna and Kang G Shin, *Real-Time Systems*, McGraw Hill, 1997 (QA76.54.K92)

Leedham, C. G. (C. Graham), *Embedded real-time systems : introductory concepts and tools*, Pearson/Prentice Hall, 3rd edition, 2007 (QA76.54.L484 2007)

SC402/CPE404 ADVANCED MICROPROCESSOR SYSTEMS

Prescribed Text

Intel® 64 and IA-32 Architectures Software Developer's Manual, Volume 1: Basic Architecture

Other References

Intel® 64 and IA-32 Architectures Software Developer's Manual, Volumes 2A & 2B: Instruction Set Reference

The Intel® 64 and IA-32 Architectures Software Developer's Manual, Volumes 3A & 3B: System Programming Guide

SC403/CSC406/CPE409 COMPUTER ARCHITECTURE

Prescribed Text & Other References

Andrew S. Tanenbaum, *Structured Computer Organization*, 5th Edition, Prentice Hall (Call no: QA76.6.T164 2006)

Carl Hamacher, Zvonko Vranesic and Safwat Zaky, *Computer Organization*, 5th Edition, Mc Graw Hill (QA76.9.C643H198)

Patterson & Hennessey, *Computer organization and design*, Morgan Kaufmann, 4th Edition 2009 (QA76.9.C643P317 2009)

SC430/CPE406/CSC304 ARTIFICIAL INTELLIGENT/AI AND INTELLIGENT SYSTEMS

Prescribed Text

S. Russel and P. Norvig, *Artificial Intelligence: A Modern Approach*, Prentice-Hall, 2nd Edition 2003. (Call no: Q335.R967A)

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Other References

G.F. Luger and W.A. Stubblefield, *Artificial Intelligence: Structures and Strategies for Complex Problem Solving*, Addison-Wesley, 6th Edition 2009 (Q335.L951)

D. Poole, A. Mackworth, and R. Goebel, *Computational Intelligence: A Logical Approach*, Oxford University Press, 1st Edition 1998 (Q335.P822)

N.J. Nilsson, *Artificial Intelligence: A New Synthesis*. Morgan Kauffman Publishers, 2nd Edition 1998 (Q335.N712A)

Th. Dean, J. Allen, and Y. Aloimonos, *Artificial Intelligence: Theory and Practice*, Addison-Wesley, 1st Edition 1995 (Q335.D282)

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B. Coppin, *Artificial Intelligence Illuminated*, Jones and Bartlett, 1st Edition 2004 (Q335.C785)

SC431/CSC423/CPE423 PARALLEL PROCESSING

Prescribed Text

Barry Wilkinson and Michael Allen, *Parallel Programming: Techniques and Applications using Networked Workstations and Parallel Computers*, Prentice Hall PTR, 2nd Edition 2004 (Call no: QA76.642.W686 2005)

Michael J. Quinn., *Parallel programming in C with MPI and OpenMP*, McGraw Hill 2004 (QA76.73.C15Q7)

Other References

A.Grama, A. Gupta, G. Karypis and V. Kumar, *Introduction to Parallel Computing* Addison Wesley, 2nd Edition 2002 (QA76.58.I61ITP)

Shameem Akhter and Jason Roberts, *Multi-Core Programming - Increasing Performance through Software Multi-threading*, Intel Corporation 2006 (QA76.642.A315)

T. Mattson, B. Sanders, B. Massingill, *Patterns for Parallel Programming*, Pearson 2004 (QA76.642.M444)

SC433/CSC301/CPE425 PROGRAMMING LANGUAGES

Louden, K.C., *Programming Languages: Principles and Practice*, Thomson – Course Technology, 2nd Edition 2003. (Call no: QA76.7.L886)

Sebesta, R., *Concepts of Programming Languages*, Addison-Wesley, 9th Edition 2010 (QA76.7.S443 2010)

Dershem, H. L. and M. J. Jipping., *Programming Languages: Structures and Models*. Wadsworth Publishing Co., 2nd Edition 1995 (QA76.7.D438 1995)

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Deitel H. M. et al. *C# How to Program*, Prentice-Hall, 2002 (QA76.73.C154C111C)

SC436/CSC422/CPE422 NEURAL NETWORK

Prescribed Text

Jacek M. Zurada , *Introduction to Artificial Neural Systems*, West Publishing, 1992.(Call no: QA76.87.Z96)

Martin T. Hagan, Howard B. Demuth & Mark Beale Martin/Hagan, *Neural Network Design* University of Colorado, 1996 (QA76.87.H141)

Igor Aleksander and Helen Morton, *Introduction to Neural Computing*, International Thomson Computer Press, 1995 (QA76.87.A366 1995)

Other References

Robert J. Schalkoff , *Artificial Neural Networks* , McGraw-Hill, 1997 (QA76.87.S297)

Chin-Teng Lin and Goerge Lee, *Neural Fuzzy Systems* , Prentice Hall, 1996.(TJ217.25.L735)

Laurene Fausett, *Fundamentals of Neural Networks*, Prentice Hall, 1994.(QA76.87.F267)

Simon Haykin, *Neural Networks* , Macmillan, 1999.(QA76.87.H419 1999)

SC440/CSC401/CPE401 ADVANCED ALGORITHMS

Other References

Thomas H. Cormen, Charles E. Leiserson and Ronald L. Rivest , *Introduction to Algorithms*, McGraw-Hill (Call no: QA76.6.C811 2001)

Anany Levitin, *Introduction to the Design and Analysis of Algorithms*, Addison Wesley, 2003 (QA76.9.A43L666 2007)

Gilles Brassard and Paul Bratley, *Fundamentals of Algorithmics* , Prentice Hall, 199.(QA9.58.B823)

Sara Baase & Allen Van Gelder, *Computer Algorithms*, Addison Wesley, 3rd Edition 2000 (QA76.6.B111 2000)

David Harel, *Algorithmics: The Spirit of Computing*, Addison Wesley, 3rd Edition (QA76.9.A43H275 2004)

**NANYANG TECHNOLOGICAL UNIVERSITY
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SC441/CSC402/CPE402

ADVANCED COMPUTER NETWORKS

Prescribed Text

James F. Kurose, Keith W. Ross, *Computer Networking: A Top-Down Approach Featuring the Internet*, Addison Wesley, 5th Edition 2010 (Call no: TK5105.875.I57K96 2010)

William Stallings, *Wireless Communications & Networks*, Prentice Hall, 2nd Edition 2005 (TK5103.2.S782 2005)

Other References

Jon Crowcroft, Mark Handley and Ian Wakeman, *Internetworking Multimedia*, Morgan Kaufmann, 1999 (TK5105.5.C953)

S. Keshav, *An Engineering Approach to Computer Networking: ATM Networks, the Internet, and the Telephone Network*, Addison-Wesley, 1997 (TK5105.5.K42)

W. Stallings, *High-Speed Networks and Internets: Performance and Quality of Service*, Prentice Hall, 2002 (TK5105.585.S782)

W. Stallings, *Wireless Communications and Networks*, Prentice Hall, 2nd Edition 2005 (TK5103.2.S782 2005)

SC444/CSC409/CPE413

CRYPTOGRAPHY AND NETWORK SECURITY

Prescribed Text

Stallings, W., *Cryptography and Network Security: Principles and Practices*, Prentice Hall, 4th Edition 2006. (Call no: TK5105.59.S782C 2006)

Kaufman, C., Perlman, R. and Speciner, M., *Network Security: Private Communication in a Public World*, Prentice Hall, 2nd Edition 2002 (TK5105.59.K21 2002)

Other References

Mao, W., *Modern Cryptography Theory and Practice*, Prentice Hall, 2004 (QA76.9.A25M296)

Schneier, B., *Applied Cryptography: Protocols, Algorithms, and Source Code in C*, Wiley, 2nd Edition, 1996 (QA76.9.A25S359 1996)

Anderson, R., *Security Engineering: A Guide to Building Dependable Distributed Systems*, Wiley, 2nd Edition 2008 (QA76.9.A25A549 2008)

**NANYANG TECHNOLOGICAL UNIVERSITY
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SC448/CSC417/CPE419

INTRODUCTORY BIOINFORMATICS

Prescribed Text

Dan E. Krane and Michael L. Rayme, *Fundamental Concepts of Bioinformatics*, Benjamin Cummings, 2003 (Call no: QH324.2.K89)

Pevsner, Jonathan, *Bioinformatics and Functional Genomics*, Wiley. (QH441.2.P514 2009)

SC451/CPE424

INFORMATION THEORY AND CODING

Prescribed Text

E. M-K. Lai and A. S. Madhukumar, *Principles of Information Theory and Coding*, Mc Graw Hill, Singapore, 2005 (Call no: Q360.L185)

Other References

Information Theory:

M. Cover and J.A. Thomas, *Elements of Information Theory*, John Wiley and Sons, 2006 (Q360.C873 2006)

D. J. C. MacKay, *Information Theory, Inference and learning Algorithms*, Cambridge University Press, 2003. (Q360.M153)

R.W. Yeung, *A First Course in Information Theory*, Kluwer Publishers, 2002 (Q360.Y48)

R.G. Gallager, *Information Theory and Reliable Communication*, John Wiley and Sons 1968 (Q360.G162)

S. Goldman, *Information Theory*, Dover Publications 2005 (Q360.G619)

D. Hankerson, G. A. Harris and P. D. Johnson, *Introduction to Information Theory and Data Compression*, Chapman and Hall 2003 (Q360.H241)

R. J. McEliece, *The Theory of Information and Coding*, Cambridge University Press, 2nd Edition 2002 (Q360.M133 2002)

Error Control Coding:

S. Lin and D. J. Costello, *Error Control Codes: Fundamentals and Applications*, Prentice-Hall, New Jersey, 2004 (QA268.L735 2004)

S. B. Wicker, *Error Control Systems for Digital Communication and Storage*, Prentice-Hall, New Jersey, 1995 (TK5103.7.W636)

R. B. Wells, *Applied Coding and Information Theory for Engineers*, Prentice-Hall, New Jersey, 1999 (TK5102.92.W455)

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