

**FALL 2008
FINAL BOOKLIST**

- 1574** Barbara Johnston, **C++ Programming Today**, 2008. Pearson Education. ISBN 0136150993.
- 2004** Charles K. Alexander and Matthew N. O. Sadiku, **Fundamentals of Electric Circuits**, 3rd edition, McGraw-Hill, 2007. ISBN 9780073301150.
- J. G. Tront, **PSpice for Basic Circuit Analysis**, 2nd edition, McGraw-Hill. Softcover with CDROM, 2007. ISBN 9780073263199.
- Bundled together: ISBN 9780073479231.
- Recommended: Duane C. Hanselman and Bruce L. Littlefield, **Mastering MatLab 7**, Prentice-Hall, 2005. ISBN 9780131430181.*
- 2014** Fleddermann, Bradshaw and Hart, **Engineering Professionalism**. Custom Published. ISBN 9780536421104.
- [Writing Guidelines for Engineering and Science Students.](http://www.writing.eng.vt.edu)**
<http://www.writing.eng.vt.edu>
- 2074** J. G. Tront, **PSpice for Basic Circuit Analysis**, 2nd edition, McGraw-Hill. Softcover with CDROM, 2007. ISBN 9780073263199.
- Robert W. Hendricks, **Lab-in-a-Box: Introductory Experiments in Electric Circuits**, 2nd edition, John Wiley, 2007. ISBN 978044879.
- Recommended: Duane C. Hanselman and Bruce L. Littlefield, **Mastering MatLab 7**, Prentice-Hall, 2005. ISBN 9780131430181.*
- 2204** D. A. Neamen, **Microelectronics Circuit Analysis and Design**, 3rd edition, 2007. McGraw-Hill. ISBN 9780072523621.
- J. G. Tront, **PSpice for Basic Circuit Analysis**, McGraw-Hill, 2007. ISBN 9780073263119.
- These two books should not be bundled together.
- 2274** ECE Department, **ECE 2274 Lab Manual**. Available on-line.
- 2504** Mano, **Computer System Architecture**, 2005. Prentice-Hall/Pearson Custom Publishing. Packaged with **LogicWorks 5**. 2nd custom printing.
- 2524** A. Robbins, **Unix in a Nutshell**, 4th edition, O'Reilly & Associates, 2005. ISBN 9780596100292.
- R. L. Schwartz and T. Phoenix, **Learning Perl**, 4th edition, O'Reilly & Associates, 2005. ISBN 9780596101053.
- 2574** Carrano and Prichard, **Data Abstraction and Problem Solving with C++: Walls and Mirrors**, 5th edition. Addison-Wesley. ISBN 9780321433329.
- Optional: Robert Sedgewick, **Algorithms in C++, Parts 1-4**, 3rd edition, Addison-Wesley. ISBN 9780201350883.*
- 2704** B. P. Lathi, **Linear Systems and Signals**, 2nd edition, 2005, Oxford University Press. ISBN 9780195158335.
- Mathworks, **The Student Edition of MatLab**. Distributed in TORG.
- 2984** (Microprocessor System Design) No textbook required.
- 3004** Charles K. Alexander and Matthew N. O. Sadiku, **Fundamentals of Electric Circuits**, 3rd edition, McGraw-Hill, 2007. ISBN 9780073301150.
- J. G. Tront, **PSpice for Basic Circuit Analysis**, 2nd edition, McGraw-Hill. Softcover with CDROM, 2007. ISBN 9780073263199.
- Bundled together: ISBN 9780073479231.

Recommended: Duane C. Hanselman and Bruce L. Littlefield, Mastering MatLab 7, Prentice-Hall, 2005. ISBN 9780131430181.

3054 Hambley, Electrical Engineering Principles and Applications, 4th edition, Prentice-Hall. ISBN 9780131989221.

3074 J. G. Tront, PSpice for Basic Circuit Analysis, 2nd edition, McGraw-Hill. Softcover with CDROM, 2007. ISBN 9780073263199.

Robert W. Hendricks, Lab-in-a-Box: Introductory Experiments in Electric Circuits, 2nd edition, John Wiley, 2007. ISBN 978044879.

Recommended: Duane C. Hanselman and Bruce L. Littlefield, Mastering MatLab 7, Prentice-Hall, 2005. ISBN 9780131430181.

3105 Hayt and Buck, Engineering Electromagnetics, 7th edition, McGraw-Hill. ISBN 9780072524956.

3106 Hayt and Buck, Engineering Electromagnetics, 7th edition, McGraw-Hill. ISBN 9780072524956.

3204 D. A. Neamen, Microelectronics Circuit Analysis and Design, 3rd edition, 2007, McGraw-Hill. ISBN 9780072523621.

J. G. Tront, PSpice for Basic Circuit Analysis, McGraw-Hill, 2007. ISBN 9780073263199.

These should not be packaged together.

3254 Hambley, Electrical Engineering Principles and Applications, 4th edition, Prentice-Hall. ISBN 9780131989221. Students should have books from taking 3054.

ECE Department, [ECE 3254 Lab Manual](#). Available on-line.

3274 ECE Department, [ECE 3274 Lab Manual](#). Available on-line.

3304 Stephen J. Chapman, Electric Machinery and power system Fundamentals, McGraw-Hill. ISBN 9780072291353.

3354 ECE Department, [ECE 3354 Power Lab Manual](#). Available on-line.

3504 Nelson, Victor, Nagle, Troy, Carroll and Irwin, Digital Logic Circuit Analysis and Design, 2nd edition, Prentice-Hall. ISBN 9780134638942.

[WinCUPL/WinSIM](#). Available to the students.

3534 No textbook required.

3574 Alan Ezust and Paul Ezust, An Introduction to Design Patterns in C++ with Qt4. Prentice-Hall, 1st edition. ISBN 9780131879058.

Scott Meyers, Effective C++: 55 Specific Ways to Improve Your Programs & Designs, 3rd edition, Addison-Wesley. ISBN 9780321334879.

3614 Haykin and Moher, Introduction to Analog and Digital Communications, 2nd edition. John Wiley. ISBN 9780471432227.

3704 B. P. Lathi, Linear Systems and Signals, 2nd edition, 2005. Oxford University Press. ISBN 9780195158335.

4104 David M. Pozar, Microwave Engineering, John Wiley.

4134 Gerd Keiser, Optical Fiber Communications, 3rd edition, 2000. McGraw-Hill.

4164 Misra and Enge, Global Positioning Systems: Signals, Measurements, and Performance, 2nd edition. Ganga-Jamuna Press.

- 4205 Sergio Franco, **Design with Operational Amplifiers and Analog Integrated Circuits**, McGraw-Hill, 2005. ISBN 9780072320848.
- 4220 Razavi, **Design of Analog CMOS Integrated Circuits**, McGraw-Hill, 2001. ISBN 0072380322.
COURSE CANCELED.
- 4224 Robert W. Erikson and Dragan Maksimovic, **Fundamentals of Power Electronics**, 2nd edition, 2001, Springer Science & Business Media, Inc. ISBN 0792372700.
- 4234 James D. Plummer, Michael D. Deal and Peter B. Griffin, **Silicon VLSI Technology: Fundamentals, Practice and Modeling**, Prentice-Hall. ISBN 0130850373. Cross-listed with MSE.
- 4304 No textbook required.
- 4334 J. D. Glover and M. S. Sarma, **Power System Analysis and Design**, Brook Cole Thomson Learning, 4th edition. ISBN 9780534548841.
VTEL to NOVA
- 4405 Norman Nise, **Control Systems Engineering**, 5th edition with CD. John Wiley. ISBN 9780471794752.
Mathworks, **The Student Edition of MatLab**. Latest edition.
Control Systems Toolbox.
- 4500 **(on-line, MIT only)**
Miles J. Murdocca and Vincent P. Heuring, **Principles of Computer Architecture**, Prentice-Hall, 2000. ISBN 9780201436648.
Capilano Computing Systems, **LogicWorks 5 (with software on CDROM)**, 2004, Prentice-Hall. ISBN 9780131456587.
Bundled together.
- 4504 John L. Hennessy and David A. Patterson, **Computer Architecture: A Quantitative Approach**, 4th edition, 2007. Morgan Kaufmann.
VTEL from NOVA
- 4514 Samir Palnitkar, **Verilog HDL**, 2nd edition, Prentice-Hall. ISBN 9780130449115.
- 4520 Laung-Terng Wang, Cheng-Wen Wu and Xiaoqing Wen, **VLSI Test Principles and Architectures**, 2006. Morgan Kaufmann, ISBN 0123705975.
Optional:
Niraj Jha and Sandeep Gupta, **Testing of Digital Systems**, Cambridge University Press, 2003. ISBN 0521773563.
Miron Abramovici, Melvin A. Greuer, Arthur D. Friedman, **Digital Systems Testing & Testable Design**, IEEE. ISBN 0780310624.
- 4524 Stuart J. Russell and Peter Norvig, **Artificial Intelligence: A Modern Approach**, 2nd edition, Prentice-Hall.
Reference Only:
Alex Martelli, **Python in a Nutshell**, 2003, O'Reilly.
- 4530 No textbook required. Architecture simulators as specified by the instructor.
- 4534 No textbook required.

- 4540 Weste and Harris, **CMOS VLSI Design, A Circuits and Systems Perspective**, 3rd edition, 2004. Addison-Wesley. ISBN 0321149017.
- 4564 David Makofske, Michael J. Donahoo and Kenneth L. Calvert, **TCP/IP Sockets in C#: Practical Guide for Programmers**, 2004, Morgan Kaufmann. ISBN 0124660517.
- 4605 **Notes** available on-line.
- For Reference Only:*
 Krauss, Bostian and Raab, **Solid State Radio Engineering**, John Wiley, 1990. ISBN 047103018X.
- 4624 J. G. Proakis and D. G. Manolakis, **Digital Signal Processing: Principles, Algorithms, and Applications**, 4th edition, Prentice-Hall, 2006. ISBN 9780131873742.
- 4634 Haykin and Moher, **Introduction to Analog and Digital Communications**, 2nd edition. John Wiley. ISBN 9780471432227.
- 4664 **Notes and Handouts** provided by professor.
- 4675 **Radio Engineering Lab**
 Quadrille lined (5 sqs/in) spiral bound notebook such as National Brand 3-209. Others would be National Brand 33-688, Boorum 09-9870, Vernon McMillan 09-9870.
- 4984 **(ID-ECE Interdisciplinary Design Project – Dr. T. L. Martin)**
 No textbook required. All readings will be provided by the instructor.
COURSE CANCELED
- 4984 **(The Perils of Space: Introduction to Space Weather – Dr. R. Clauer)**
 Michael J. Carlowica and Ramon E. Lopez, **Storms from the Sun: The Emerging Science of Space Weather**. The Joseph Henry Press, Washington, DC, 2002.
- 5105 R. F. Harrington, **Time-Harmonic Electromagnetic Fields**, IEEE Press.
- 5144 T.-C. Poon and T. Kim, **Engineering Optics with MATLAB**, World Scientific. ISBN 9812568727.
- 5200 Jasprit Singh, **Electronic and Optoelectronic Properties of Semiconductor Structures**, Cambridge University Press, 2003. ISBN 052182379X. (Cross-listed with MSE)
- 5204 **Instructor notes.**
- 5205 Jean-Pierre Colinge and Cynthia A. Colinge, **Physics of Semiconductor Devices**, Kluwer Academic, 2002. ISBN: 1-4020-7018-7.
- 5224 **Instructor notes.**
- 5254 No textbook required.
- 5324 **Notes** provided by instructor.
VTEL from NOVA
COURSE CANCELED
- 5504 David E. Culler & JaswinderPal Singh, **Parallel Computer Architecture, A Hardware/Software Approach**, Morgan Kaufman, 1999.
- 5505 Laung-Terng Wang, Cheng-Wen Wu and Xiaoqing Wen, **VLSI Test Principles and Architectures**, 2006. Morgan Kaufmann, ISBN 0123705975.

Optional:

Niraj Jha and Sandeep Gupta, Testing of Digital Systems, Cambridge University Press, 2003. ISBN 0521773563.

Miron Abramovici, Melvin A. Greuer, Arthur D. Friedman, Digital Systems Testing & Testable Design, IEEE. ISBN 0780310624.

5524 T. Hastie, R. Tibshirani, and J. Friedman, The Elements of Statistical Learning, Springer, 2001.

5530 ??????????

5546 Christian Piguet (Editor), Low-Power Electronics Design, CRC Press. ISBN 0849319412.

5554 Linda G. Shapiro and George C. Stockman, Computer Vision, 2001, Prentice-Hall. ISBN 9780130307965.
CGEP Course

5560 William Stallings, Cryptography and Network Security – Principles and Practices, 4th edition, Prentice-Hall.

5564 ??????????

5565 James F. Kurose and Keith W. Ross, Computer Networking: A Top-Down Approach Featuring the Internet, Addison-Wesley, 4th edition.

5575 J. Fitzgerald, P. G. Larsen, P. Mukherjee, N. Plat, M. Verhoef, Validated Designs for Object-Oriented Systems, 2005, Springer. ISBN 9781852338817.
Course canceled.

5604 W. H. Tranter, Shanmugan, Rappaport, Kosbar, Principles of Communication Systems Simulation With Wireless Applications, Prentice-Hall.
CGEP Course

5605 Alberto Leon-Garcia, Probability & Random Processes for Electrical Engineering, 3rd edition, 2008, Addison-Wesley.
Also taught in NOVA.

5634 Thomas M. Cover and Joy A. Thomas, Elements of Information Theory, 2nd edition, 2006. John Wiley. ISBN 0471241954.

5635 Merrill I. Skolnik, Introduction to Radar Systems, 3rd edition, McGraw-Hill, 2001. ISBN 0072909803.

5674 Jeffrey H. Reed, Software Radio, A Modern Approach to Radio Design, 2002. Prentice-Hall.

5704 C. T. Chen, Linear System Theory and Design, Oxford University Press. ISBN 9780195117776.

5984 **(Application and Design of High-density Multi-phase PWM Converters – Dr. Fred Wang)**
Class handouts, SABER simulation tool, Matlab/Simulink simulation and analysis tool.

5984 **(Introduction to Space Plasmas – Dr. W. Scales)**
F. F. Chen, Introduction to Plasma Physics and Controlled Fusion, Springer, 2006. ISBN 10:0306413329.

5984 **(Multi-channel Communications – Dr. R. M. Buehrer)**
Papers provided by the instructor.

6114 **Optional/Recommended:**
Akira Ishimaru, Electromagnetic Wave Propagation, Radiation, and Scattering, Prentice Hall. Latest Edition. ISBN 0132490536. (This is the ISBN for the 1st edition. Would like the latest edition if there is one.)

6304 **(Critical Energy Infrass Assurance – Dr. S. Rahman – VTEL from Nova)**

W. H. Kersting, Distribution System Modeling, CRC Press., 2006. ISBN 084935806X.

6304 (Wide Area Power Sys Stab Cont – Dr. L. Yilu)

Handouts provided by the instructor.

6334 Prabha Kunder, Power System Stability, McGraw Hill and PSS/E Manual.

6624 Dimitris Manolakis, Vinay K. Ingle, Stephen M. Kogon, Statistical and Adaptive Signal Processing: Spectral Estimation, Signal Modeling, Adaptive Filtering and Array Processing. Artech House Publishers, 2005. ISBN 13:978-15805536103 or 10:1580536107.