

**Department of Electrical Engineering & Computer Science**

**Revised January 28th, 2014**

# WINTER 2015 TEXTBOOK LIST

Course	Title	Required Textbook ( <i>optional textbooks indicated by *</i> )
EECS 1020 3.00 M	Introduction to Computer Science I	<u>Java by Abstraction, 4<sup>th</sup> Ed.</u> by Hamzeh Roumani ISBN: 9781269950305 (Pearson)
EECS 1028 3.00 M	Discrete Mathematics for Engineers	<u>Discrete Mathematics and Its Applications, 7<sup>th</sup> Ed.</u> by Kenneth H. Rosen ISBN: 0073383090 (McGraw-Hill)
EECS 1520 3.00 (all sections)	Computer Use: Fundamentals	<u>Computer Science Illuminated, 5<sup>th</sup> Ed.</u> by Nell Dale and John Lewis ISBN: 9781449672843 (Jones and Bartlett)
EECS 1530 3.00 N	Computer Use: Programming	<u>Introduction to Programming Using Visual Basic, 8<sup>th</sup> Ed. (2010)</u> by David L. Schneider ISBN: 9780132128568 (Prentice Hall) <b>*optional text*</b>
EECS 1541 3.00 M	Computing for the Physical Sciences	<u>MATLAB: A Practical Introduction to Programming and Problem Solving, 3<sup>rd</sup> Ed.</u> by Stormy Attaway ISBN: 0124058760 (Elsevier)
EECS 1560 3.00 M	Computing for Math and Statistics	<u>Mathematical Computing: An Introduction to Programming Using Maple, 2002.</u> by David Betounes and Mylan Redfern ISBN: 9780387953311 (Springer)
EECS 1720 3.00 M	Building Interactive Systems	<u>Java by Abstraction, 4<sup>th</sup> Ed.</u> by Hamzeh Roumani ISBN: 9781269950305 (Pearson)
EECS 2001 3.00 Z	Introduction to the Theory of Computation	<u>Automata Theory, Languages, and Computation.</u> by J.E. Hopcroft, R. Motwani and J.D. Ullman ISBN: 0321455363 (Addison-Wesley)
EECS 2011 3.00 Z	Fundamentals of Data Structures	<u>Data Structures and Algorithms in Java, 6<sup>th</sup> Ed.</u> by Michael T. Goodrich et al. ISBN: 9781118771334 (Wiley)
EECS 2021 3.00 Z	Computer Organization	<u>Computer Organization and Design: The Hardware/Software Interface, 5<sup>th</sup> Ed.</u> by David A. Patterson and J. Hennessy ISBN: 9780124077263 (Morgan Kaufmann)
EECS 2031 3.00 M	Software Tools	<u>The C Programming Language, 2<sup>nd</sup> Ed.</u> by Brian W. Kernighan and Dennis M. Ritchie ISBN: 0131103628 (Prentice Hall)
EECS 2041 3.00 M	Net-Centric Computing	<u>Web Technologies, 2007.</u> by Jeffrey C. Jackson; ISBN: 9780131856035 (Pearson) <b>*optional text*</b>
EECS 2210 3.00 Z	Electronic Circuits and Devices	<u>Microelectronic Circuits, 7<sup>th</sup> Ed.</u> by Sedra and Smith ISBN: 9780199339136 (Oxford University Press)
EECS 2602 3.00 Z	Signals and Systems in Continuous Time	<u>Continuous and Discrete Time Signals and System.</u> by Mrinal Mandal and Amir Asif ISBN: 0521854555 (Cambridge University Press)
EECS 3101 3.00 Z	Design and Analysis of Algorithms	<u>Introduction to Algorithms, 3<sup>rd</sup> Ed.</u> by T.H. Cormen, C.E. Leiserson, R.L. Rivest and C. Stein ISBN: 9780262033848 (MIT Press) <b>*optional text*</b>
EECS 3214 3.00 M	Computer Network Protocols and Applications	<u>Computer Networks: A Top-Down Approach, 6<sup>th</sup> Ed.</u> by James F. Kurose and Keith W. Ross ISBN: 9780132856201 (Addison-Wesley)
EECS 3215 3.00 Z	Embedded Systems	<u>Computers as Components: Principles of Embedded Computing System Design (2012), 3<sup>rd</sup> Ed.</u> by Marilyn Wolf ISBN: 9780123884367 (Morgan Kaufmann) <b>*optional text*</b>

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EECS 3221 3.00 Z	Operating System Fundamentals	Operating System Concepts, 9 <sup>th</sup> Ed. by A. Silberschatz, P.B. Galvin and G. Gagne ISBN: 9781118063330 (Wiley)
EECS 3401 3.00 M	Introduction to AI and Logic Programming	Prolog Programming for Artificial Intelligence, 4 <sup>th</sup> Ed. by Ivan Bartko ISBN: 9780321417466 (Pearson)
EECS 3421 3.00 M	Introduction to Database Systems	Database Management Systems, 3 <sup>rd</sup> Ed. by R. Ramakrishnan and J. Gehrke ISBN: 0072465638 (McGraw-Hill) <b>*optional text*</b>
EECS 3482 3.00 M	Introduction to Computer Security	Computer Security: Principles and Practice, 3 <sup>rd</sup> Ed. by W. Stallings and L. Brown ISBN: 9780133773927 (Pearson)
EECS 4101 3.00 M (cross-listed to GS/CSE 5101 3.00 M)	Advanced Data Structures	Introduction to Algorithms, 3 <sup>rd</sup> Ed. by T.H. Cormen, C.E. Leiserson, R.L. Rivest and C. Stein ISBN: 9780262033848 (MIT Press) <b>*optional text*</b>
EECS 4210 3.00 M	Architecture and Hardware DSP	VLSI Digital Signal Processing Systems: Design and Implementation by Keshab K. Parhi ISBN: 9780471241867 (Wiley)
EECS 4215 3.00 M	Mobile Communications	Mobile Communications. by Jochen H. Schiller ISBN: 0321123816 (Addison-Wesley)
EECS 4313 3.00 M	Software Engineering Testing	Software Engineering: A Craftman's Approach, 4 <sup>th</sup> Ed. by Paul C. Jorgensen ISBN: 9781466560680 (CRC Press)
EECS 4411 3.00 M	Database Management Systems	Database Management Systems, 3 <sup>rd</sup> Ed. by R. Ramakrishnan and J. Gehrke ISBN: 0072465638 (McGraw-Hill)
EECS 4421 3.00 Z	Introduction to Robotics	Computational Principles of Mobile Robotics. by Gregory Dudek and Michael Jenkin ISBN: 9780521692120 (Cambridge University Press)
EECS 4431 3.00 M	Advanced Topics in 3D Computer Graphics	OpenGL 4 Shading Language Cookbook, 2 <sup>nd</sup> Ed. by David Wolff ISBN: 1782167021 (Packt Publishing)
EECS 4471 3.00 M	Introduction to Virtual Reality	3D User Interfaces: Theory and Practice, 1 <sup>st</sup> Ed. by Bowman et al. ISBN: 9780321980045 (Addison-Wesley)
EECS 4491 3.00 M	Computer Games: Simulation and Animation	Computer Animation, 3 <sup>rd</sup> Ed. by Rick Parent ISBN: 9780124158429 (Morgan Kaufmann)
GS CSE 6444 3.00 M	Mining Software Engineering Data	Recommendation Systems in Software Engineering, May 1 2014. by Martin P. Robillard, W. Maalej, R.J. Walker and T. Zimmerman ISBN: 9783642451348 (Springer) <b>*optional text*</b>  Making Software: What Really Works and Why We Believe It, 1 <sup>st</sup> Ed. by Andy Oram and Greg Wilson ISBN: 9780596808327 (O'Reilly Media) <b>*optional text*</b>