

ECE Course #	CarmanBook option for Sp22	Author	Title	Edition	ISBN#	Publisher
2020 (also @ Marion campus, Sp)		F. Ulaby and M. Maharbiz	Circuits (required)	3	9781934891223	NTS Press
2021		F. Ulaby and M. Maharbiz	Circuits (required)	3	9781934891223	NTS Press
2027			no text			
2050/2051		J. Proakis and D. Manolakis	Digital Signal Processing (recommended)	4 (any)	9780131873742	Prentice-Hall
2057			no text			
2060/2061 (also @ Marion campus, Sp)	Y	Roth, Jr., Kinney	Fundamentals of Logic Design (required) - either edition is okay	7 OR 7 enhanced	9781133628477 9781337620352	Cengage Learning
2067			no text (done with 2060 text if taking 2067)			
2193			no text			
2300/2301		G. Rizzoni	Principles and Applications of Electrical Engineering (required)	6	9780073529592	McGraw-Hill
2307			no text			
2560		J. Davies	MSP430 Microcontroller Basics (required) http://library.ohio-state.edu/record=b7519548~S7 (free)	1	9780750682763	Newnes (Elsevier)
2998.01			no text			
2998.02			no text			
3010	Y	F. Ulaby and U. Ravaioli	Fundamentals of Applied Electromagnetics (required)	8	9780135199008	Pearson
3020		A. Sedra and K. Smith	Microelectronic Circuits (required)	7 (any)	9780199339136	Oxford Univ. Press
3027			https://download.mikroe.com/documents/specials/educational/ask-pro/ask-pro-manual-v103.pdf%20(free)			mikroe.com
3030	Y	B. Streetman and S. Banerjee	Solid State Electronic Devices (required)	7	9780133356038	Pearson
3040		M. El-Sharkawi	Electric Energy: An Introduction (required) http://library.ohio-state.edu/record=b8030599~S7 (free)	3	9781466503038	CRC Press
3047			no text			
3050		A. Oppenheim and A. Willsky	Signals and Systems (required)	2	9780138147570	Pearson
3090	Y	J. Lannon and L. Gurak	Technical Communication (required)	15	9780135203248	Pearson
3551	Y	R. Dorf and R. Bishop	Modem Control Systems (required)	13	9780134407623	Pearson
3561	Y	Roth, Jr., Kinney	Fundamentals of Logic Design (required) - either edition is okay	7 OR 7 enhanced	9781133628477 9781337620352	Pearson
3567			no text			
3905		R.M. Ford and C.S. Coulston	Design for Electrical and Computer Engineers: Theory, Concepts, and Practice (recommended)	2007	9780073380353	McGraw-Hill
4021		T. Carusone, D. Johns, and K. Martin R. J. Baker	Analog Integrated Circuit Design (required) - also for 5021 https://library.ohio-state.edu/record=b9143147~S7 (free) CMOS Circuit Design, Layout, and Simulation (recommended) https://library.ohio-state.edu/record=b8030298~S7 (free)	2 3	9780470770108 9780470881323	Wiley Wiley
4193			no text			
4567		D. Rose J. Rossman A. Ravulavaru	Enchanted Objects (recommended) The Amazon Way on IoT (recommended) Enterprise Internet of Things Handbook (recommended)	2015 2016 2018	9781476725642 9780692739006 9781788838399	Scribner John E. Rossman Packt Publishing
4900/ 4905/4905H		R.M. Ford and C.S. Coulston	Design for Electrical and Computer Engineers: Theory, Concepts, and Practice (recommended)	2007	9780073380353	McGraw-Hill
4998.01			no text			
4998.01H			no text			
4998.02			no text			
4999.01			no text			
4999.01H			no text			
5000		M. Fitz R. Gallager	Fundamentals of Communications Systems (recommended) https://library.ohio-state.edu/record=b6981475~S7 (free) Principles of Digital Communication (recommended) http://www.mit.edu/~6.450/handouts/6.450book.pdf (free) or https://library.ohio-state.edu/record=b8583908~S7 (free)	2007 2008		McGraw-Hill Cambridge University Press (MIT OpenCourseWare)
5007		L. Potter and Y. Yang	A Digital Communication Laboratory: Acoustic Explorations with a Software-Defined Modem (free .pdf at Lulu.com)	2015		.pdf available free at Lulu.com
5010		Levis, Johnson, and Teixeira	Radiowave Propagation: Physics and Applications (required) https://library.ohio-state.edu/record=b9170511~S7 (free - If you cannot find OSU on list of universities, click on "not listed.")	2010	9780470542958	Wiley
5011		C. A. Balanis	Antenna Theory: Analysis and Design (required) http://library.ohio-state.edu/record=b7966422~S7 (free)	4	9781118642061	Wiley
5012		K. Okamoto	Fundamentals of Optical Waveguides (required) http://library.ohio-state.edu/record=b7841671~S7 (free)	2	9780125250962	Academic Press
5013		M. Richards, J. Scheer, and W. Holm	Principles of Modern Radar: Basic Principles (required) http://library.ohio-state.edu/record=b7086524~S7 (free)	2010	9781891121524	SciTech (Stylus) Publishing

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5017		D. Pozar	Microwave Engineering (required) https://ebookcentral-proquest-com.proxy.lib.ohio-state.edu/lib/ohio-state-ebooks/detail.action?docID=2064708 (free)	4	9780470631553	Wiley
5020		J. Rabaey, A. Chandrakasan, and B. Nikolic	Digital Integrated Circuits (required)	2	9780130909961	Prentice-Hall
5021		T. Carusone, D. Johns, and K. Martin	Analog Integrated Circuit Design (required) - also for 4021 https://library.ohio-state.edu/record=b9143147~S7 (free)	2	9780470770108	Wiley
		R. J. Baker	CMOS Circuit Design, Layout, and Simulation (recommended) https://library.ohio-state.edu/record=b8030298~S7 (free)	3	9780470881323	Wiley
5022		K. McClaning	Wireless Receiver Design for Digital Communications (required) https://library.ohio-state.edu/record=b8030306~S7 (free)	2	9781891121807	Scitech Publications
5023		F. Maloberti	Data Converters (recommended) https://library.ohio-state.edu/record=b6821966~S8 (free)	2007	ASIN: B011DAZE4C	Springer
5025		Mohan, Undeland, and Robbins	Power Electronics: Converters, Applications, & Design (required)	3	9780471226932	Wiley
5027		G. Gonzalez	Microwave Transistor Amplifiers (required)	2	9780132543354	Prentice-Hall
5031		S. A. Campbell	Fabrication Engineering at the Micro- and Nanoscale (required) https://library.ohio-state.edu/record=b7086944~S8 (free)	4	9780199861224	Oxford Univ. Press
5033		L. Brillson	An Essential Guide to Electronic Material Surfaces and Interfaces (required) https://library.ohio-state.edu/record=b8027925~S7 (free)	2016	9781119027119	Wiley
			OR Surfaces and Interfaces of Electronic Materials (required)	2010	9783527409150	
5037		S. A. Campbell	Fabrication Engineering at the Micro- and Nanoscale (required) https://library.ohio-state.edu/record=b7086944~S8 (free)	4	9780199861224	Oxford Univ. Press
5041		Krause, Wasynczuk, and Pekarek	Electromechanical Motion Devices (required) http://library.ohio-state.edu/record=b7140038~S8 (free)	2	9781118296127	Wiley-IEEE Press
5042		Bergen and Vittal	Power Systems Analysis (required)	2	9780136919902	Prentice-Hall
5043		A.J. Conejo and L. Baringo	Power System Operations (required) https://library.ohio-state.edu/record=b8412654~S8 (free)	2018	9783319694061	Springer
5047			no text			
5050			no text			
5070			no text			
5078	Y	T. Byers, R. Dor, and A. Nelson	Technology Ventures: From Idea to Enterprise (required)	5	9781259875991	McGraw-Hill
5101			no text			
5120		Burns and Roberts	An Introduction to Mixed-Signal IC Test and Measurement (required) https://library.ohio-state.edu/record=b7140038~S8 (free)	2	9780199796212	Oxford Univ. Press
5127			no text			
5131		J. Verdeyen	Laser Electronics (required)	3	9780137066667	Prentice-Hall
5132		B.E.A. Saleh and M.C. Teich	Fundamentals of Photonics (required) https://library.ohio-state.edu/record=b7855312~S8 (free)	2	9780471358329	Wiley
5194.09		S. L. Chuang	Physics of Photonic Devices (recommended) <i>This text has been authorized for purchase of e-version by library. Will post URL when available.</i>	2	9780470293195	Wiley
		E. F. Schubert	Light-Emitting Diodes (recommended) https://library.ohio-state.edu/record=b7087196~S8 (free)	2	9780521865388	Cambridge University Press
5194.11			no text			
5194.14		D. K. Schroder	Semiconductor Material and Device Characterization (required) https://library.ohio-state.edu/record=b8118156~S8 (free)	3	9780471739067	IEEE Press
5200		A. Oppenheim and R. Schaffer	Discrete-Time Signal Processing (recommended)	3	9780131988422	Prentice-Hall
5206		Z-H. Cho	Foundations of Medical Imaging (required)	1993	9780471545736	Wiley
5207		A. Rich, L. Potter, and M. Riedl	Real-time Digital Signal Processing: Laboratory Exercises Using Simulink Support for the Raspberry Pi (free via course page)	2015		
5227		R. Erickson and D. Maksimovic	Fundamentals of Power Electronics (required) http://library.ohio-state.edu/record=b8030300~S7 (free)	2	9781475705591	Springer
		Christopher Basso	Switch-Mode Power Supplies: Spice Simulations and Practical Designs (recommended)	2	9780071823463	McGraw-Hill
		Christopher Basso	Designing Control Loops for Linear and Switching Power Supplies (recommended) https://library.ohio-state.edu/record=b7501221~S7 (free)	2012	9781608075577	Artech House
5237			no text			
5244		B. Jayant Baliga	Gallium Nitride and Silicon Carbide Power Devices (required) https://library.ohio-state.edu/record=b8920144~S7 (free)	2017	9789813109407	World Scientific Publishing Co.
5307		S. Raschka	Python Machine Learning (recommended) https://library.ohio-state.edu/record=b8920146~S7 (free)	2019	9781789955750	Packt Publishing - ebooks Account
		G. James, D. Witten, T. Hastie, R. Tibshirani	An Introduction to Statistical Learning (recommended) https://library.ohio-state.edu/record=b8033232~S7 (free)	2013	9781461471370	Springer
5362		Hamacher, Vranesic, Zaky and Manjikian	Computer Organization and Embedded Systems (required)	6	9780073380650	McGraw-Hill
5400		C. F. Dagnazo	Fundamentals of Transportation and Traffic Operations (required) https://library.ohio-state.edu/record=b8030301~S7 (free)	1997	9780080427850	Emerald Group Pub
5460		Forsyth and Ponce	Computer Vision: A Modern Approach (required)	2	9780136085928	Pearson

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5462		Z. Navabi	VHDL: Modular Design and Synthesis of Cores and Systems (required)	3	9780071475457	McGraw-Hill
5463		K. Lynch and F. Park	Modern Robotics: Mechanics, Planning, and Control (required) http://hades.mech.northwestern.edu/index.php/Modern_Robotics (free)	1	9781107156302	Cambridge University Press
5465		Muhammad Ahr and Kashif	ARM Microprocessor Systems Cortex-M Architecture, Programming, and Interfacing (required) https://library.ohio-state.edu/record=b8762142~S7 (free)	1	9781482259389	CRC Press
5466		M. Wolf	Computers as Components: Principles of Embedded Computing System Design (required) https://library.ohio-state.edu/record=b8924009~S7 (free)	4	9780128053874	Morgan Kaufmann
5510			no text			
5530		J. Davies	The Physics of Low-Dimensional Semiconductors (required) https://library.ohio-state.edu/record=b8407926~S7 (free)	2009	9780521484916	Cambridge University Press
5550			no text			
5551		Franklin, Powell, and Workman	Digital Control of Dynamic Systems (required) Students may purchase at EllisKaglePress.com for discount using code: FPWSU\$50	3	9780979122613	Ellis-Kagle Press
5553			no text			
5554		Jurgen Franklin, Powell, and Workman	Automotive Electronics (recommended) Digital Control of Dynamic Systems (required) <i>Students may purchase at EllisKaglePress.com for discount using code: FPWSU\$50</i>	1994 3	9780070331891 9780979122613	McGraw-Hill Ellis-Kagle Press
5555			no text			
5560		K.K. Parhi	VLSI Digital Signal Processing Systems: Design and Implementation (re	1999	9780471241867	Wiley
5561			no text			
5567.01			no text			
5567.02			no text			
5570			no text			
5759		D. Bertsekas	Nonlinear Programming (required)	3	9781886529052	Athena Scientifica
5832		O. Isabella, K. Jager, A. Smets, R. vanSwaaij, M. Z	Solar Energy: The Physics and Engineering of Photovoltaic Conversion Technologies and Systems (required) Available for free via Amazon Kindle.	2016	9781906860325 ASIN: B01CPN481G	UIT Cambridge Ltd. or Amazon Digital Services (free Kindle)
5833		G. Nisato, D. Lupo, and S. Ganz	Organic and Printed Electronics: Fundamentals and Applications (required) https://library.ohio-state.edu/record=b8030303~S7 (free)	2016	9789814669740	Pan Stanford
6001		D. Bertsekas and J. Tsitsiklis	Introduction to Probability (required)	2	9781886529236	Athena Scientifica
6010		C. A. Balanis	Advanced Engineering Electromagnetics (required)	2	9780470589489	Wiley
6011		C. Furse, D. Christensen, C. Durney, and J. Nagel	Basic Introduction to Bioelectromagnetics (required) https://library.ohio-state.edu/record=b8484092~S7 (free)	3	9781498780018	CRC Press
6070		K. Schwalbe The Project Management Institute	An Introduction to Project Management, Revised (recommended) A Guide to the Project Management Body of Knowledge - PMBOK guide (recommended) https://library.ohio-state.edu/record=b8539240~S7 (free)	4 5	9780982800331 9781935589679	
6101		M. Schwartz A. Leon-Garcia and I. Widjaja	Telecommunication Networks: Protocols, Modeling and Analysis (required) Communication Networks: Fundamental Concepts and Key Architectures (required)	1987 2	978 0201164237 978 0072463521	Prentice-Hall McGraw Hill
6102			no text			
6193			no text			
6194.05			no text			
6194.08			no text			
6194.09		N. Kimizuka, S. Yamazaki	Physics and Technology of Crystalline Oxide Semiconductor CAAC-IGZO: Fundamentals (required) https://library.ohio-state.edu/record=b8082508~S7 (free)	2016	9781119247401	Wiley
6194.10		L. Coldren, S. Corzine, and M. Masanovic	Diode Lasers and Photonic Integrated Circuits (required) https://library.ohio-state.edu/record=b7128505~S7 (free)	2	9780470484128	Wiley
6202		M. Hayes	Statistical Digital Signal Processing and Modeling (recommended)	1996	9780471594314	Wiley
6244			no text			
6511		R. Boyd	Nonlinear Optics (required) https://library.ohio-state.edu/record=b7519811~S8 (free)	3	9780123694706	Elsevier Science
6531		U. Mishra and J. Singh	Semiconductor Device Physics and Design (required) https://library.ohio-state.edu/record=b6568915~S7 (free)	2008	9781402064807	Springer
6532		M. Ventra, S. Evoy, J.R. Heflin	Introduction to Nanoscale Science and Technology (required) https://library.ohio-state.edu/record=b7624984~S8 (free)	2004	9781402077203	Springer
6533		E.L. Dereniak and G.D. Boreman	Infrared Detectors and Systems (required)	1996	9780471122098	Wiley
6535		P. Bhattacharya	Semiconductor Optoelectronic Devices (required)	2	9780134956565	Pearson

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6541		G. Masters	Renewable and Efficient Electric Power Systems (required) https://library.ohio-state.edu/record=b8030305~S7 (free)	2	9781118140628	Wiley-IEEE Press
6750		Antsaklis and Michel	A Linear Systems Primer (required) https://library.ohio-state.edu/record=b6523062~S7 (free)	2007	9780817644604	Birkhauser
6754		H.K. Khalil	Nonlinear Systems (required)	3	9780130673893	Prentice-Hall
6999			no text			
7001		V. Poor	An Introduction to Signal Detection and Estimation (required) https://library.ohio-state.edu/record=b8920145~S7 (free)	2010	9781441928375	Springer
7003		D. Tse and P. Viswanath	Fundamentals of Wireless Communication (required - possibly recommended)	2005	9780521845274	Cambridge University Press
7005		T. Cover and J. Thomas	Elements of Information Theory (required) https://library.ohio-state.edu/record=b7841669~S8 (free)	2	9780471241959	Wiley-Interscience
7010			no text			
7011			no text			
7013 (in limbo)		F. Gini, A. DeMaio and L. Patton P. Stoica and J. Li	Waveform Design and Diversity for Advanced Radar Systems https://library.ohio-state.edu/record=b7176011~S7 (free) MIMO Radar Signal Processing https://library.ohio-state.edu/record=b8572640~S7 (free)	2011	9781849192651	IET
				2008	9780470178980	Wiley-IEEE Press
7020		M. Pelegrom	Analog-to-Digital Conversion (required) https://library.ohio-state.edu/record=b8138595~S7 (free)	3	9783319449708	Springer
7022		T. Lee	The Design of CMOS Radio-Frequency Integrated Circuits (required)	2	9780521835398	Cambridge University Press
7023			no text			
7027		F. Maloberti Carusone, Johns, and Martin	Data Converters (required) https://library.ohio-state.edu/record=b6821966~S7 (free) Integrated Circuit Design (recommended)	1	9780387324852	Springer
				2	9780470770108	Wiley
7032			no text			
7100			no text			
7103	Y	R. Gallager	Stochastic Processes: Theory for Applications (required)	2014	9781107039759	Cambridge University Press
7200		M. Vetterli, J. Kovacevic, and V. Goyal J. Kovacevic, V. Goyal, and M. Vetterli	Foundations of Signal Processing, and; Fourier and Wavelet Signal Processing (required) http://fourierandwavelets.org (free)			
7202			no text			
7402			no text			
7531		U. Pohl	Epitaxy of Semiconductors: Introduction to Physical Principles (required) https://library.ohio-state.edu/record=b7201207~S7 (free)	2013	9783642329692	Springer
7811		C. R. Paul	Introduction to Electromagnetic Compatibility (required) https://library.ohio-state.edu/record=b7966462~S7 (free)	2	9780471755005	Wiley
7813		C. A. Balanis	Antenna Theory: Analysis and Design (required) http://library.ohio-state.edu/record=b7966422~S7 (free)	4	9781118642061	Wiley
7814		A. Ishimaru	Wave Propagation and Scattering in Random Media (required) https://library.ohio-state.edu/record=b8118332~S7 (free)	1999	9780780347175	Wiley-IEEE Press
7821			no text			
7822		P. Roblin	Nonlinear RF Circuits and Nonlinear Vector Network Analyzers (required) http://library.ohio-state.edu/record=b7560618~S7 (free)	2011	9780521889957	Cambridge University Press
7831		P. Roblin	High Speed Heterostructure Devices (required) https://library.ohio-state.edu/record=b7560606~S7 (free)	2006	9780521024235	Cambridge University Press
7841			no text			
7842			no text			
7843			no text			
7850			no text			
7854		H.K. Khalil	Nonlinear Systems (required)	3	9780130673893	Prentice-Hall
7855 (in limbo)			no text			
7858			no text			
7859		Utkin, Guldner, and Shi	Sliding Mode Control in Electromechanical Systems (required)	2	9781420065602	CRC Press
7861 (in limbo)			no text			
7864			no text			
7866			no text			
7868			no text			
8001			no text			
8019			no text			
8101			no text			
8193			no text			

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8194.03		M. Wolf	Computers as Components: Principles of Embedded Computing System Design (required) https://library.ohio-state.edu/record=b8552292~S7 (free)	3	9780123884367	Morgan Kaufman
8194.04			no text			
8201			no text			
8250		D. Kirk	Optimal Control Theory; An Introduction (required) https://library.ohio-state.edu/record=b7391147~S7 (free)	2004	9780486434841	Dover
8851			no text			
8861 (in limbo)			no text			
8862			no text			
8891			no text			
8898			no text			
8999			no text			