

School of Materials Engineering Spring 2014 Textbook Requirements

Subject Area	Number	CRN (Optional; when omitted it means this textbook or material applies to all records)	Course Title	Instructor	No Textbook Required (Y/N)	Type (Textbook, Supplemental Material)	Title	ISBN	Author	Edition/Year	Year	Publisher	Required/Optional	Notes	Est. Enrollmt
MSE	23000		Structure and Properties of Materials Lec 1	Coughlan	Yes	Textbook	Materials Science and Engineering an Introduction	978-0-470-41997-7	Callister and Rethwisch	8th	2010	John Wiley & Sons	Required	Same textbook all three sessions	150
MSE	23000		Structure and Properties of Materials Lec 2	Coughlan											150
MSE	23000		Boilerblast	Coughlan											84
MSE	25000	60875	Physical Properties in Engineering Systems	Trice	None									No Textbook Required	72
MSE	26000	49580	Thermodynamics of Materials	Spitzer	Yes	Textbook	Introduction to the Thermodynamics of Materials	9-781591-690436	David R. Gaskell	5th	2008	Taylor and Francis	Required		70
MSE	27000	41367	Atomistic Materials Science	Strachan	Yes	Textbook	Crystals and Crystal Structures	978-0-470-01821-7	Richard J. D. Tilley	1st	2006	John Wiley & Sons	Required		88
MSE	33000	41370	Processing & Properties of Materials	Slamovich	None									No Textbook Required	65
MSE	36700	22811	Materials Processing Laboratory	Martinez/Erk/Bahr	Yes	Textbook	Engineering Statistics	978-0470631478	Mongomery, Runger, & Hubele	5th	2010	John Wiley & Sons	Required		65
MSE	38200	22816	Mechanical Response of Materials	Johnson	Yes	Textbook	Mechanical Behavior of Materials	0-471-24198-9	K. J. Bowman	1st	2004	Wiley	Required		65
MSE	44000	53790	Materials Processing and Design II	Krane	None									No Textbook Required	40
MSE	49700		Selected Topics in Materials Engineering xlst EEE 430 Indus Ecol & LCA	Howarter	Yes	Textbook	Materials and the Environment, Second Editiona: Eco-informed Material Choice	978-0123859716	M. F. Ashby	2nd	2012	Elsevier	Required		
MSE	50200	64869	Defects in Solids	Kvam	No									No Textbook Required	35
MSE	51000	41479	Microstructural Characterization Techniques	Kvam	No									No Textbook Required	35
MSE	51200	11316	Powder Processing	Trumble	Yes	Textbook	Introduction to Modern Colloid Science	978-0198553861	R. J. Hunter	1st	1994 paperback	Oxford Science Publ.	Required		35
MSE	55600	11320	Fracture of Materials	Johnson	Yes	Textbook	Fracture Mechanics: Fundamentals and Applications	978-0849316562	Ted L. Anderson	3rd	2004	Taylor and Francis	Required		35
MSE	56700	11321	Polymer Synthesis	Youngblood	Yes	Textbook	Principles of Polymerization	978-0471274001	George Odian	4th	2004	Wiley-Intersciences	Required		35
MSE	57500	43937	Transport Phenomena in Solids	Dayananda	No									No Textbook Required	35
MSE	57600	34143	Corrosion	Spitzer	Yes	Textbook	Principles and Prevention of Corrosion	978-0133599930	Denney A. Jones	2nd	1995	Prentice Hall	Required		35
MSE	597L	69908	Lean Manufacturing	Owen	Yes	Textbook & Syllabus	The Machine That Changed The World	978-0-7432-9979-4	James P. Womack Daniel T. Jones Daniel Roos	1st	1990 / (2007 in paperback)	Free Press	Required		35
MSE	597T	11330	Introduction to Computational Materials	Garcia	None									No Textbook Required	35
MSE	597C	11332	Manufacturing Composite Matis Lect xlst w/ AAE 590	Pipes	None									No Textbook Required	35
MSE	597F	65482	Introductory Biomaterials	Stanciu	Yes	Textbook	Biomaterials: An Introduction	978-1-4419-2281-6	Joon Park, R. S. Lakes	3rd	2007	Springer	Required		35
MSE	64000	11342	Transmission Electron Microscopy and Crystal Imperfections	Ortalan	No	Supplemental Material	Transmission Electron Microscopy: a Textbook for materials Science	978-0-387-76500-6 or 978-0-387-76502-0	D. B. Williams, C. B. Carter	2nd	2011/(2009 paperback)	Springer	Required	Supplemental Material Required	15
MSE	697C	66601	Dsgn Gbl Sustain Electrc II	Howarter/Hua	None									No Textbook Required	12
MSE	697B	37858	Materials Engineering Teach Experience	Krane	None									No Textbook Required	15
MSE	58100	60207	Scanning Electron Microscopy Skills Lecture Session 1 wk 1-8	Ortalan	None									No Textbook Required	
MSE	58100	60208	Scanning Electron Microscopy Skills Lecture Session 2 wk 9-15	Ortalan	None									No Textbook Required	
MSE	58200	54243	Transmission Electron Microscopy SkillsLecture weeks 6-10	Ortalan	No	Supplemental Material	Transmission Electron Microscopy: a Textbook for materials Science	978-0-387-76500-6 or 978-0-387-76502-0	D. B. Williams, C. B. Carter	2nd	2011/(2009 paperback)	Springer	Required	Supplemental Material Required	