

MATERIALS SCIENCE AND ENGINEERING (0750)

Teaching Schedule 2017-2018

<u>Course No.</u>	<u>Title</u>	<u>Fall</u>	<u>Winter</u>	<u>Spring</u>
GT 106	Freshman Design and Communications			
298/398	IDEA			
101	Modern Materials			
190	MS&E Freshman Projects	TTh 2:00 Dravid		
201	Principles of the Properties of Materials	TTh 9:30 Emery	TTh 9:30 Emery	TTh 9:30 Emery/DeCosta
301	Chemical Aspects of Engineering Materials	MWF 12:00 Chung		MWF 12:00 Huang/Haile
314	Thermodynamics of Materials	MTWF 3:00 Barnett		
315	Phase Equilibria and Diffusion in Materials		MTWF 2:00 Wolverton	
316-1	Microstructural Dynamics			MWF 1:00 Joester
316-2	Microstructural Dynamics	MWThF 1:00 Joester		
318	Materials Selection		MWF 11:00 Carr	MWF 2:00 Carr
331	Soft materials		MWF 3:00 Huang	
332	Mechanical Behavior of Solids	MWF 10:00 Shull/Emery		
333	Composites			
336	Chemical Synthesis of Materials			
337	Conducting Polymers	MWF 11:00 Huang		
340	Ceramic Processing			
341	Intro to Modern Ceramics			
351-1	Intro Physics of Materials		MTWF 1:00 Snyder	
351-2	Intro Physics of Materials			MWF 10:00 Wessels
355	Electronic Materials			
358	Electronic and Thermal Properties of Materials			
360	Electron Microscopy	TTh 12:30 Marks		TTh 12:30 Marks

361	Crystallography & Diffraction			MWF 12:00 Bedzyk/Emery	
362	Point, Line & Planar Imperfections				
370	BioMaterials				
371	Biomaterials: Hierarchical Architecture and Function			TTh 12:30 Joester	
372	Engineering Strategies in Tissue Engineering and Regenerative Medicine				
376	Nanomaterials		MWF 12:00 Lauhon		
380	Intro to Surface Science & Spectroscopy			MWF 9:00 Guisinger	
381	Energy Materials			TTh 11:00 Dunand	
382	Fuel Cells				MWF 12:00 Barnett
385	Electronic and Thermal Properties of Materials				MWF 3:00 Snyder
390	Materials Design				MWF 11:00 Olson/Rondinelli
391	Process Design		MWF 3:00 Chung		
394	Honors Project		TBA	TBA	TBA
395	Special Topics: Materiality of Art and Archaeo		TTh 9:30 Terpstra/Walton		
395	Magnetic Properties of Materials				
395	Mechanical Modeling				
395	Special Topics			TTh 9:30 Chang	
395	Special Topics: Engineering Strategies in Tissue Engineering & Regenerative Medicine				
395	Special Topics: Electronic and Thermal Properties of Materials				
395	Special Topics: Bioelectrics				TTh 9:30 Rogers/Rivnay

396	Senior Project MS&E		W 2:00 Stair	W 2:00 Stair	W 2:00 Stair
398	Introduction to Plasma Sci. and Processing Tech.				
399	Special Projects MS&E		TBA	TBA	TBA
401	Chemical and Statistical Thermodynamics of Materials		MWF 9:00 Luijten		
402	Structure of Crystalline and Noncrystalline Materials		MWF 10:00 Wessels		
404	Imperfections in Materials			MWF 1:00 Seidman/Haile	
405	Physics of Solids				MTWF 1:00 Hersam
406	Symmetry and Mechanical Properties of Materials				MWF 2:00 Dunand/Emery
408	Phase Transformations in Materials			MTWF 10:00 Voorhees	
411	Phase Transformations in Crystalline Materials				TTh 9:30 Voorhees/Wolverton
415	Fundamentals of Thin Film Materials			MWF 12:00 Barnett	
416	Kinetics				TTh 2:00, W 8:30 Seidman
434	Fracture of Brittle Solids				
435	High Temperature Materials				
445	High Polymer Science		TTh 4:00 Olvera		
451	Physics of Materials		MTWF 1:00 Hersam		
452	Special Topics in Solid State Physics of Materials: Optoelectronic Materials		TTh 2:00 Rondinelli		
455	Physics of Nanostructures			TTh 11:00 Wessels	
456	Functional Metamaterials				
458	Computational Materials Science			MTWF 9:00 Wolverton	

460	Electron Microscopy			TTh 2:00 (MatSci only) Marks	
461	Diffraction Methods in Materials Science				TTh 11:00 Bedzyk
465	Advanced Electron Microscopy and Diffraction				
466	Analytical Electron Microscopy				TTh 11:00 Dravid
495	Biomineralization				
495	Solar Energy Conversion			TTh 9:30 Chang	
495	Mechanics of the Cell				
495	Mechanics of Soft Matter				
495	Solid State Electrochemistry for Energy Storage and Conversion				TTh 9:30 Haile
495	Solid State Electrochemistry				TTh 2:00 Shull
498	Statistical Mechanics				
499	Projects		TBA	TBA	TBA
510	Special Topics Computational				
590	Research		TBA	TBA	TBA