Materials Science and Engineering—Major Requirements for BS Degree with Nanotechnology Emphasis

Effective Fall 2016

University of California, Merced	Anticipated Graduation Date (ex: May 2020)
----------------------------------	--

Full Name:	ID #:	Email

Requirement/ Course Dept #	Course Title	Grade	Units or # Required	Term/Year Completed	Substitute Approved
UCM Requirements	Course Title	Graue	Required	Completed	Approved
-UC Entry Level Writing			n/a		
-American History/Institutions			n/a		
-CORE 001	World at Home I		1 course		
-WRI 010	College Composition		1 course		
School Requirements	College Composition		1 course		
-MATH 021	Calculus I Phys Sciences & Eng		4 units		
-MATH 022	Calculus II Phys Sciences & Eng		4 units		
-MATH 022	Vector Calculus		4 units		
-MATH 023	Linear Algebra and Differential Equations		4 units		
-MATH 032	Probability and Statistics		4 units		
-MATH 032 -PHYS 008	Introductory Physics I		4 units		
-PHYS 009	Introductory Physics I		4 units		
-ME 021			4 units		
-Science Course	Engineering Computing		4 units		
	BIO 001, BIO 005, ESS 001, or ESS 005				
-Arts/Humanities GE			3-4 units		
-Social Science GE			3-4 units		
Major/Core Requirements			0 ''		
-ENGR 097/197 or SSHA GE			3 units		
-Upper-division Writing Course			4 units		
Engineering Fundamentals					
-ENGR 057	Statics and Dynamics		4 units		
-ENGR 120	Fluid Mechanics		4 units		
-ENGR 130	Thermodynamics		3 units		
-ENGR 151	Strength of Materials		4 units		
-ENGR 155	Engineering Economics		3 units		
MSE Core					
-ENGR 045	Introduction to Materials		4 units		
-PHYS 141	Condensed Matter Physics		4 units		
-MSE 109	Materials Thermodynamics		4 units		
-MSE 111	Materials Kinetics and Processing		4 units		
-MSE 112	Materials Selection and Performance		3 units		
-MSE 113	Materials Characterization		4 units		
-MSE 120	Materials Capstone Design		3 units		
Additional Degree Requirements					
-CHEM 002	General Chemistry I		4 units		
-PHYS 010	Introductory Physics III		4 units		
-ENGR 191	Professional Seminar		1 unit		
Nanotechnology Emphasis	SEE PAGE 2		13-14 units		

Notes/Comments	
Advisor Signature/Date:	
Advisor Signature/Date: Student Signature/Date:	

This guide in an unofficial document intended to be used for advising/course planning only. This document cannot be used to supersede or waive requirements listed in the UCM Catalog unless approved by your advisor.

Emphasis							
Effective Fall 2016							
University of California,	Merced	Anticipated Graduation Date (ex: May 2020)					
Full Name:		ID #:	E	Email			
	Freshman Seminar/S NGR 197 or one 3-4 unit S						
	Team or Title / Units						
1.							
<u>2.</u> 3.							
3							
<u>. </u>							
Nanotechnology E	mphasis (13-14 unit						
Nanotechnology E	ing three core course			Units or #	Term/Year	Substitute	
Nanotechnology E Complete the follow Course & Dept #	ing three core course Course Title	es:	Grade	Required	Term/Year Completed	Substitute Approved	
Nanotechnology E Complete the follow Course & Dept # -MSE 118	Course Title	es: ch and Nanoscience	Grade	Required 3 units			
Nanotechnology E	ing three core course Course Title	eh and Nanoscience orication	Grade	Required			