

# Chemistry Graduation Requirements

## Interdisciplinary: Material Science and Engineering

### Chemistry Core *(Required of All Majors)*

F=Fall; S=Spring, U=Summer Semesters

	Credits	Offered	<i>Honors Courses Indicated with H</i>	
CHEM 1210, 1220 (General Chemistry I & II)	(4, 4)	F, S, U		S: 1221H
CHEM 1215, 1225 (Gen Chem Labs)	(1, 1)	F, S, U		
CHEM 2310, 2320 (Organic Chemistry I & II)	(4, 4)	F, S, U	F: 2311H	S: 2321H
CHEM 2315, 2325 (Org Chem Labs)	(1, 1)	F, S, U		
CHEM 3000 (Quantitative Analysis)	(4) CW	F, U		
CHEM 3060 (Physical Chemistry I - Quantum)	(4) QI	F, S		
CHEM 3100 (Inorganic Chemistry)	(5)	F		
MATH 1210, 1220 (Calculus I & II)	(4, 4)	F, S, U		
MATH 2210 (Calculus III)	(3)	F, S, U		
PHYCS 2210, 2220 (Physics for Sci & Eng I & II)	(4, 4)	F, S, U	F: 2110	S: 2120
PHYCS 2215, 2225 (Physics Labs)	(1, 1)	F, S		

### Additional Courses

	Credits	Offered
MATH 2250 Ordinary Differential Equations and Linear Algebra	(3)	
CHEM 3070 Physical Chemistry II	(4)	F, S
<i>Two laboratory courses selected from</i>		
CHEM 5700 (Adv. Analytical Lab)	(2)	S <sup>1</sup>
CHEM 5710 (Adv. Organic Lab)	(2)	F <sup>1</sup>
CHEM 5720 (Adv. Physical Lab)	(2)	S <sup>2</sup>
CHEM 5730 (Adv. Inorganic Lab)	(2)	F <sup>2</sup>
<i>Fifteen or more units selected from the following:</i>		
MSE 2010 Introduction to Materials Science and Engineering	(4)	
MSE 3010 Materials Processing Lab	(2)	
MSE 3210 Electronic Properties of Solids	(2)	
MSE 3310 Introduction to Ceramics	(3)	
MSE 3410 Introduction to Polymers	(3)	
MSE 3510 Introduction to Metallic Materials	(3)	
MSE 5032 Thermodynamics of Solids	(4)	
MSE 5034 Kinetics of Solid-state Processes	(3)	
MSE 5010 X-Ray Diffraction	(2.5)	
MSE 5473 Polymer Synthesis and Characterization	(4)	