MATERIALS SCIENCE & ENGINEERING

Courses highlighted below are available at Wofford College

Curriculum Example*

FRESHMAN YEAR

_____	4 CH 1010 General Chemistry	_____	4 CH 1020 General Chemistry
_____	3 ENGL 1030 Accelerated Composition	_____	3 ENGR 1410 Programming and Problem Solving[1]
_____	2 ENGR 1020 Engineering Discipline and Skills[1]	_____	4 MATH 1080 Calculus of One Variable II
_____	4 MATH 1060 Calculus of One Variable I	_____	3 PHYS 1220 Physics with Calculus I
_____	3 Gen Ed[2] _____	_____	3 Gen Ed[2] _____
	16		17

SOPHOMORE YEAR

_____	3 CH 2230 Organic Chemistry	_____	3 CE 2010 Statics
_____	1 CH 2270 Organic Chemistry Lab.	_____	3 CH 2240 Organic Chemistry
_____	3 MSE 2100 Introduction to Materials Science	_____	1 CH 2280 Organic Chemistry Lab.
_____	4 MATH 2060 Calculus of Several Variables	_____	2 ENGR 2080 Engr. Graphics & Machine Design *OR*
_____	3 PHYS 2210 Physics with Calculus II		2 ECE 2070 Basic Electrical Engineering
_____	3 Gen Ed[2] _____	_____	4 MATH 2080 Int. to Ordinary Differential Eqtns
	17	_____	3 MSE 3100 Introduction to Metals and Ceramics
			16

JUNIOR YEAR

_____	3 STAT 4110 Stat. Methods for Process Development & Control	_____	3 IE 3840 Engineering Economic Analysis
_____	2 MSE 3010 Materials Synthesis & Fabrication Laboratory	_____	2 MSE 3020 Materials Characterization Laboratory
_____	3 MSE 3260 Thermodynamics of Materials	_____	3 MSE 3190 Materials Processing I
_____	3 MSE 4150 Intro. to Polymer Sci. and Engr.	_____	3 MSE 3270 Transport Phenomena
_____	1 MSE 4450 Practice of Materials Engineering	_____	3 MSE 4020 Solid State Materials
_____	1 MSE 4810 Undergraduate Research Fundamentals	_____	3 MSE 4220 Mechanical Behavior of Materials
_____	3 Gen Ed[2] _____		17
	16		

SENIOR YEAR

_____	3 COMM 2500 Public Speaking	_____	3 MSE 4070 Senior Capstone Design
_____	2 ECE 2070 Basic Electrical Engineering *OR*	_____	9 Technical Requirement [3]
	2 ENGR 2080 Engr. Graphics and Machine Design	_____	3 Gen Ed[2] _____
_____	2 MSE 4910 Undergraduate Research		15
_____	6 Technical Requirement [3]		
	13		

127 Total Semester Hours

[1] ENGR 1070+1080 +1090 may be substituted for ENGR 1410, and ENGR 1050 + 1060 may be substituted for ENGR 1020.

[2] See policy on General Education coursework for Clemson University students. There are Six Gen Ed requirements for students pursuing the MSE major, but all 6 requirements could be met in 4 courses if planned appropriately. Please see advisor.

[3] See Advisor, Acalog or Degreeworks for full current list of Junior/Senior level technical electives for MSE majors.

*See catalog for current curriculum at catalog.clemson.edu

General Education Requirements						
LIT	Non-Lit	SS1	SS2	ENGR 5th	CCA	STS