

# Materials Science and Engineering 5 Year Plan of Study for ROTC Students

## First Year

FALL			SPRING		
Course	Course Title	Credits	Course	Course Title	Credits
CHEM 1035	General Chemistry	3	ENGE 1216	Foundations of Engineering	2
CHEM 1045	General Chemistry Lab	1	ENGL 1106	First-Year Writing	3
ENGE 1215	Foundations of Engineering	2	MATH 1226	Calculus of a Single Variable	4
ENGL 1105	First-Year Writing	3	PHYS 2305	Foundations of Physics	4
MATH 1225	Calculus of a Single Variable	4			
	ROTC	Varies		ROTC	Varies
<b>Total Credit Hours</b>			<b>Total Credit Hours</b>		
<b>15 - 18</b>			<b>15-18</b>		

## Second Year

FALL			SPRING		
Course	Course Title	Credits	Course	Course Title	Credits
MSE 2044	Fund of Materials Engr.	4	MSE 2054	Fund of Materials Science	3
MSE 2884	Materials Eng Prof Dev I	1	MSE 3314	Materials Lab I	1
MATH 1114	Elem. Linear Algebra	2	MSE 2114	MATH Methods in MSE I	1
MATH 2204	Intro Multivariable Calculus	3	MATH 2214	Differential Equations	3
ESM 2104	Statics	3	ESM 2204	Mech. of Deformable Bodies	3
	Area 6	1	CHEM 1036	General Chemistry II	3
	ROTC	Varies		ROTC	Varies
<b>Total Credit Hours</b>			<b>Total Credit Hours</b>		
<b>14-17</b>			<b>15-19</b>		

## Third Year

FALL			SPRING		
Course	Course Title	Credits	Course	Course Title	Credits
MSE 3114	Math Methods in MSE II	1	MSE 3044	Transport Phenomena MSE	3
MSE 4424	Materials Lab II	1	MSE 4644	Mat Optimization Des Exp.	3
ECON 2005	Principles of Economics	3	ISE 2214	Manufacturing Processes Lab	1
PHYS 2306	Foundations of Physics	4		Physical Materials Course	3
	Physical Materials Course	3		Technical Elective	3
	ROTC	Varies		ROTC	Varies
<b>Total Credit Hours</b>			<b>Total Credit Hours</b>		
<b>13 - 19</b>			<b>14-18</b>		

## Fourth Year

FALL			SPRING		
Course	Course Title	Credits	Course	Course Title	Credits
MSE 3134	Cryst. and Crystal Structures	3	MSE 3884	Materials Eng Prof Dev II	1
MSE 4034	Thermo. of Materials	1	MSE 3054	Mech Behav. Of Materials	3
	Physical Materials Course	3	MSE 3064	Mech Behav. Lab	1
	Technical Electives	3		Technical Elective	3
	Area 3	3		Area 2	3
	ROTC	Varies		ROTC	Varies
<b>Total Credit Hours</b>			<b>Total Credit Hours</b>		
<b>14 - 17</b>			<b>12-17</b>		

## Fifth Year

FALL			SPRING		
Course	Course Title	Credits	Course	Course Title	Credits
MSE 4055	MAT Select & Design	3	MSE 4076	Senior Project Lab II	2
MSE 4075	Senior Project Lab I	1	MSE 4086	Senior Project Recitation II	1
MSE 4085	Senior Project Recitation I	2		Physical Materials Class	3
	Area 2	3		Technical Elective	3
	Area 7	3			
	ROTC	Varies		ROTC	Varies
<b>Total Credit Hours</b>			<b>Total Credit Hours</b>		
<b>12 - 14</b>			<b>9-14</b>		