

University of Memphis Physics – Materials Science Concentration

First Year

Fall		Spring	
Physics for Scientists and Engineers I (PHYS 2110)	3 cr.	Physics for Scientists and Engineers II (PHYS 2120)	3 cr.
Physics for Scientists and Engineers I Laboratory (PHYS 2111)	1 cr.	Physics for Scientists and Engineers II Laboratory (PHYS 2121)	1 cr.
Calculus I (MATH 1910)	4 cr.	Calculus II (MATH 1920)	4 cr.
General Chemistry I (CHEM 1110)	3 cr.	General Chemistry II (CHEM 1120)	3 cr.
General Chemistry I Laboratory (CHEM 1111)	1 cr.	General Chemistry II Laboratory (CHEM 1121)	1 cr.
GE English Composition (ENGL 1010)	3 cr.	GE English Composition/Analysis (ENGL 1020)	3 cr.
<i>Semester Total</i>	<i>15 cr.</i>	<i>Semester Total</i>	<i>15 cr.</i>

Second Year

Fall		Spring	
Intermediate Physics (PHYS 2130)	4 cr.	Theoretical Physics (PHYS 3011)	3 cr.
Research in Physics I (PHYS 2990)	1 cr.	Advanced Physics Methodology (PHYS 3060)	3 cr.
Modern Physics (PHYS 3010)	3 cr.	Differential Equations (MATH 2120)	3 cr.
Calculus III (MATH 2110)	4 cr.	GE Social/Behavioral Sciences	3 cr.
GE Oral Communication (COMM 2381)	3 cr.	GE History	3 cr.
<i>Semester Total</i>	<i>15 cr.</i>	<i>Semester Total</i>	<i>15 cr.</i>

Third Year

Fall		Spring	
Mechanics (PHYS 3111)	3 cr.	Electricity and Magnetism I (PHYS 3211)	3 cr.
Materials Physics (PHYS 4720)	3 cr.	Research in Physics II (PHYS 3990)	2 cr.
GE Literary Heritage (ENGL 2201 or 2202)	3 cr.	Thermal and Statistical Physics (PHYS 4510)	3 cr.
GE History	3 cr.	GE Humanities/Fine Arts	3 cr.
Elective	3 cr.	GE Social/Behavioral Sciences	3 cr.
		Elective	1 cr.
<i>Semester Total</i>	<i>15 cr.</i>	<i>Semester Total</i>	<i>15 cr.</i>

Fourth Year

Fall		Spring	
Introduction to Quantum Mechanics (PHYS 4410)	3 cr.	Solid State Physics (PHYS 4610)	3 cr.
Materials Science Elective*	3 cr.	Research in Materials Physics (PHYS 4994)	3 cr.
UD Elective	3 cr.	GE Humanities/Fine Arts	3 cr.
UD Elective	3 cr.	UD Elective	3 cr.
Elective	3 cr.	Elective	3 cr.
<i>Semester Total</i>	<i>15 cr.</i>	<i>Semester Total</i>	<i>15 cr.</i>

* One of the following: PHYS 4020, 4030, 4420, 4620, 4820, MECH 3320, or CIVL 3322