

B.S. DEGREE in PHYSICS+
with Materials Engineering Emphasis
Iowa State University

Semester 1	Freshman Year	Semester 2	
Critical Thinking and Comm. - Engl 150	3	Intro to Class. Physics II – Phys 242	5
Introductory Seminar - Phys 199	R	Calculus III - Math 265	4
Intro to Classical Physics I – Phys 241	5	Social Science Choice	3
Calculus II – Math 166	4	General Chemistry I Chem 177+177L ²	5
Arts&Humanities + IP prespective*	3		17
Library Instruction – Lib 160	1		
	<u>16</u>		

Semester 1	Sophomore Year	Semester 2	
WOVE Composition - Engl 250	3	Intro to Modern Physics II - Phys 322	3
Intro to Modern Physics I - Phys 321	3	Intro Lab in Mod Phys II - Phys 322L	1
Intro Lab in Mod Phys I - Phys 321L	1	Classical Mechanics - Phys 361	3
Elementary Differential Equations and Laplace Transforms – Math 267	4	Introduction to Partial Differential Equations - Math 385	3
Foreign Language (or Elective)	4(3)	Principles of Materials Science and Engineering - MAT E 273	3
Humanities choice	3	Foreign Language (or Elective)	4(3)
	<u>18(17)</u>		<u>17(16)</u>

Semester 1	Junior Year	Semester 2	
Introduction to Materials Science and Engineering I - Mat E 215	3	Introduction to Materials Science and Engineering II - Mat E 216	3
Introduction to Materials Science and Engineering I Lab - Mat E 215L	1	Introduction to Materials Science and Engineering II Lab - Mat E 216L	1
Electricity and Magnet. I - Phys 364	3	Social Science Choice	3
Matrix/Lin. Algebra – Math 207/317	3(4)	Electives	6
Natural Science Choice	3	Humanities choice	3
English Proficiency Requirement - Engl 302, 305, 309 or 314	3		16
	<u>16(17)</u>		

Semester 1	Senior Year	Semester 2	
Quantum Mechanics – Phys 480	3	Mat E Electives 300+	6
Mat E Electives 300+	9	Humanities Choice	3
Social Science Choice	3	Elective	6
	<u>15</u>		<u>15</u>

* Students should choose a course that satisfy both Arts& Humanities and International Prospective requirements

² Chem 177 + Chem 177L can be used as Natural Science Electives

Students in all ISU majors must complete a three-credit course in U.S. diversity, a three-credit course in international perspectives, 9 credits in Social Science course, 8 credits in Natural Science courses and 12 credits in Arts and Humanities courses.

LAS majors require a minimum of 120 credits, including a minimum of 45 credits at the 300/400 level. You must also complete the LAS foreign language requirement.