

B.S. DEGREE in PHYSICS+
with Mechanical Engineering Emphasis - Option A
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	Natural Science, General Chemistry I - Chem 177+177L	5
Arts&Humanities + IP perspective*	3		17
Library Instruction – Lib 160	1		
	<u>16</u>		

Semester 1	Sophomore Year	Semester 2	
WOVE Composition - Engl 250	3	Mech. Eng. Problem Solving with Computer Applications - ME160	3
Intro to Modern Physics I - Phys 321	3	Classical Mechanics - Phys 361	3
Intro Lab in Mod Phys I - Phys 321L	1	Introduction to Partial Differential Equations - Math 385	3
Elementary Differential Equations and Laplace Transforms – Math 267	4	Engineering Statics - C E 274	3
Foreign Language (or Elective)	4(3)	Social Science Choice	3
Humanities choice	3	Foreign Language (or Elective)	4(3)
	<u>18(17)</u>		<u>19(18)</u>

Semester 1	Junior Year	Semester 2	
Engineering Graphics and Introductory Design - ME 170	3	Thermal Physics – Phys 304	3
Electricity and Magnet. I - Phys 364	3	Introduction to Mechanical Engineering Design - M E 270	3
Engineering Statistics - Stat 305	3	Introduction to Circuits and Instruments - E E 442	2
Matrix/Lin. Algebra – Math 207/317	3(4)	Mechanics of Materials - E M 324	3
English Proficiency Requirement - Engl 302, 305, 309 or 314	3	Social Science Choice	3
	<u>15(16)</u>	Humanities choice	3
			<u>17</u>

Semester 1	Senior Year	Semester 2	
Quantum Mechanics – Phys 480	3	System Dynamics and Control M E 421	4
Elective	3	Principles of Materials Science and Engineering - MAT E 273	3
Engineering Measurements - M E 370	3	Humanities Choice	3
Introduction to AC Circuits and Motors - E E 448	2	Electives	6
Engineering Dynamics - M E 345	3		<u>16</u>
	<u>14</u>		

* Students should choose a course that satisfy both Arts& Humanities and International Prospective requirements
 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, 8 credits in Natural Science 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.