

B.S. DEGREE in PHYSICS+
Specialized Curriculum in Astronomy and Astrophysics
Iowa State University - 2016

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 Elective	5
Humanities Choice	3		
Library Instruction – Lib 160	1		
	16		17

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
Astro 150 ³	3	Astro 346 ³	3
Humanities choice	3	Humanities Choice	3
	17		16

Semester 1	Junior Year	Semester 2	
Intermediate Mechanics - Phys 362	3	Thermal Physics – Phys 304	3
Electricity and Magnet. I - Phys 364	3	Electricity and Magnet. II – Phys 365	3
Astro 342 ³	3	Seminar – Phys 389	R
Matrix/Lin. Algebra – Math 207/317	3(4)	English Proficiency Requirement -	
Foreign Language (or Elective)	4(3)	Engl 302, 305, 309 or 314	3
	16	Social Science Choice	3
		Foreign Language (or Elective)	4(3)
			16(15)

Semester 1	Senior Year	Semester 2	
Electronics - Phys 310	4	Intermediate Laboratory – Phys 311 ¹	2
Quantum Mechanics – Phys 480	3	Modern Optics – Phys 496 ²	3
Elective	3	Applied Quantum Mechanics – Phys 481 ²	3
Astro 344L ^{1,3}	3	Humanities Choice	3
Social Science Choice	3	Astro 405 ³	3
	16		14

¹ Students must earn a minimum of two laboratory credits from Phys 311, 311T, 450L, 470L, Astro 344L or 450L.

² Recommended but not required. Students must earn 3 credits from Phys 421, 432, 461, 481, 496, 511, 526, 528, 531, 534, 541 or Astro 342, 346, 405

³ Recommended for an Astro minor

Students in all ISU majors must complete a three-credit course in U.S. diversity and a three-credit course in international perspectives. Check (<http://www.iastate.edu/~registrar/courses/div-list.html>) for a list of approved courses. Discuss with your adviser how the two courses that you select can be applied to your graduation plan.

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.