

B.S. DEGREE in PHYSICS+

with Computer Science Emphasis

Iowa State University - 2018

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 Choice	5
Humanities Choice	3		<u>17</u>
Library Instruction – Lib 160	<u>1</u>		
	16		

Semester 1	Sophomore Year	Semester 2	
WOVE Composition - Engl 250	3	Classical Mechanics - Phys 361	3
Intro to Modern Physics I – Phys 321	3	Introduction to Partial Differential	
Intro Lab in Mod Phys I - Phys 321L	1	Equations - Math 385	3
Elementary Differential Equations and Laplace Transforms – Math 267	4	Introduction to Data Structures - Com S 228	3
Intro to Object-oriented Programming - Com S 227	<u>3</u>	Social Science Choice	3
	14	Humanities Choice	<u>3</u>
			15

Semester 1	Junior Year	Semester 2	
Discrete Computational Structures - Com S 230	3	Thermal Physics – Phys 304	3
Electricity and Magnet. I - Phys 364	3	Software Development Practices - Com S 309	3
English Proficiency Requirement - Engl 302, 305, 309 or 314	3	Intermediate Laboratory – Phys 311 ¹	2
Matrix/Lin. Algebra – Math 207/317	3(4)	Social Science Choice	3
Foreign Language (or Elective)	<u>4(3)</u>	Foreign Language (or Elective)	<u>4(3)</u>
	15-17		14(13)

Semester 1	Senior Year	Semester 2	
Advanced Programming Techniques - Com S 327	3	Computer Science Elective ²	3
Humanities Choice	3	Probability and Statistics for Computer Science - Stat 330	3
Quantum Mechanics – Phys 480	3	Humanities choice	3
Elective	3	Electives	3
Design and Analysis of Algorithms - Com S 311	<u>3</u>		<u>12</u>
	15		

¹ Students must earn a minimum of two laboratory credits from Phys 310, 311, 311T, 450L, 470L, Astro 344L or 450L.

² Students are suggested a Computer Science elective among ComS 321, ComS 331, ComS 336, ComS 342, Com S 362, Com S 363, Com S 409, Com S 410, Com S 417, Com S 424

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.