

B.S. DEGREE in PHYSICS+
with Physics and Math Education 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	1	Calculus III - Math 265	4
Intro to Classical Physics I – Phys 241	5	Natural Science, e.g. General Chemistry I Chem 177+177L	5
Calculus II – Math 166	4	EDUC 204: Social Foundations of Education in the United States: Secondary	3
Arts&Humanities + IP prespective*	3		
Library Instruction – Lib 160	1		
	<u>17</u>		<u>17</u>

Semester 3	Sophomore Year	Semester 4	Summer semester	
Intro to Modern Physics I – Phys 321	3	Intro to Modern Physics II – Phys 322	3	Arts&Humanities- US History or Government ** 3
Intro Lab in Mod Phys I - Phys 321L	1	Stat 201: Introduction to Statistical Concepts and Methods	4	Arts&Humanities 3
Elementary Differential Equations and Laplace Transforms – Math 267	4	Classical Mechanics - Phys 361	3	WOVE Composition - Engl 250 <u>3</u>
EDUC 202: Educational Technologies in the 7-12 Classroom	3	Matrix/Lin. Algebra – Math 207	3	<u>6</u>
PSYCH 230: Developmental Psychology	3	EDUC 406: Social Justice Education and	3	
EDUC 280L: Pre-Student Teaching Experience I: Secondary Education	0.5	EDUC 333: Educational Psychology	3	
EDUC 219: Orientation to Teacher Education: FCS, History, Math, Science and World Language and Cultures Majors	1			
Math 201 - Introduction to Proofs	3			<u>19</u>
	<u>18.50</u>			

Note, student applies to teacher ed program

Semester 5	Junior Year	Semester 6	Summer semester	
Electricity and Magnet. I - Phys 364	3	Thermal Physics – Phys 304	3	Foreign Language (or Elective) 4
EDUC 380A: Pre-Student Teaching Experience	2	EDUC 419: Secondary Science Methods	3	<u>4</u>
EDUC 418: Secondary Science Methods I	3	Astro 120/150	3	
EDUC 395: Teaching Disciplinary Literacy	3	SP ED 401: Teaching Secondary Student	3	
Introduction to Partial Differential Equations - Math 385	3	Math 397 Teaching Secondary Mathematics using University Mathematics	3	
Foreign Language (or Elective)	4	Intermediate Lab for Secondary Physics Teachers - Phys 311T	3	
	<u>18</u>	Seminar on Secondary School Physics - Phys 399	1	
				<u>19</u>

Semester 7	Senior Year	Semester 8	
Quantum Mechanics – Phys 480	3	EDUC 417B: Student Teaching	16
EDUC 480: Pre-Student Teaching Experience III	2		
English 314	3		
Math 497 Teaching Secondary Mathematics	3		
Math 435 Geometry I	3		
Social Science	3		
	<u>17</u>		<u>16</u>

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

** Students in Education are required to take an American History or American Government course