

## Secondary Ed Physics Major + Mathematics Minor (starting in odd-numbered year)

<b>First Year</b>	<b>Fall (16-17cr)</b>	<input type="checkbox"/> 4 Physics 132 F	Matter, Light and Energy	
		<input type="checkbox"/> 4 Math 171	Calculus I	
		<input type="checkbox"/> 0 Physics 195	Physics & Astronomy Student Seminar	
		<input type="checkbox"/> 4 Foreign Language 201		
		<input type="checkbox"/> 3 English 101		
			<input type="checkbox"/> 1 IDIS 149 F	First Year Seminar
			<input type="checkbox"/> 1 Interdisciplinary 110	or exemption exam
		<b>INT</b>	<input type="checkbox"/> 3 Interdisciplinary 150	Developing A Christian Mind
		<b>Spring(17cr)</b>	<input type="checkbox"/> 4 Physics 133 S [M171]	Mechanics and Gravity
	<input type="checkbox"/> 4 Math 172 [M171]		Calculus II	
<input type="checkbox"/> 0 Physics 195	Physics & Astronomy Student Seminar			
<input type="checkbox"/> 4 Foreign Language 202 [FL201]				
<input type="checkbox"/> 4 Core-e.g. Hist 151 or 152* History of the West and the World I or II				
		<input type="checkbox"/> 1 Educ 102	Introduction to Education	
			This worksheet is for students entering Calvin in the Fall of an <b>odd-numbered year</b> . Two plans are presented because some required courses are offered only every-other year.	
			This worksheet <b>assumes</b> that 2 years of high school foreign language have been completed.	
<b>Second Year</b>	<b>Fall(16cr)</b>	<input type="checkbox"/> 4 Physics 235 F [P133, M172]	Electricity & Magnetism	
		<input type="checkbox"/> 4 Math 271 F [M172]	Multivariable Calculus	
		<input type="checkbox"/> 4 Computer Science 106 F	Intro to Scientific Computation and Modeling	
		<input type="checkbox"/> 0 Physics 195	Physics & Astronomy Student Seminar	
		<input type="checkbox"/> 3 Educ 202 [Educ 102]	The Learner in the Educational Context	
			<input type="checkbox"/> 1 Elective PE#1	
		<b>INT</b>	<input type="checkbox"/> 3 Elective	
		<b>Spring(16cr)</b>	<input type="checkbox"/> 4 Physics 306 S [P134 or 235 and M162 ]	Intro to Quantum Physics
	<input type="checkbox"/> 1 Physics 237 S [P133 or 221]		Einstein's Theory of Relativity	
	<input type="checkbox"/> 0 Physics 195		Physics & Astronomy Student Seminar	
<input type="checkbox"/> 4 Math 243 S [M172]	Statistics			
<input type="checkbox"/> 3 Core-e.g. Phil 153*	Fundamental Questions in Philosophy			
		<input type="checkbox"/> 3 Core-e.g. Bibl/Theol.Foundations I*		
		<input type="checkbox"/> 1 PE #2		
			Color Key: Blue-required in physics major, including cognates Magenta-additional courses required for math minor Red-professional education courses Black-core	
<b>Third Year</b>	<b>Fall(17cr)</b>	<input type="checkbox"/> 0 Physics 195	Physics & Astronomy Student Seminar	
		<input type="checkbox"/> 4 Educ 302 [Educ202]	Curriculum and Instruction for Diverse Learners	
		<input type="checkbox"/> 3 Educ 303	Curriculum and Instruction: Practicum	
		<input type="checkbox"/> 4 Math 361 F [2 Math 231 and above]	Real Analysis I	
		<input type="checkbox"/> 3 Core-e.g. IDIS 205 for Societal Structures & CCE		
			<input type="checkbox"/> 3 Core-e.g. Bibl/Theol.Foundations II*	
		<b>INT</b>	<input type="checkbox"/> 4 SCES 214 (Rhet. In Cult. Core) and PE #3	
		<b>Spring(17cr)</b>	<input type="checkbox"/> 3 Physics246 S+ [P235 or 221 & M172]	Waves, Optics, and Optical Technology
	<input type="checkbox"/> 2 SCES 314 S+		Integration Methods and Pedagogies for Sec Sci	
	<input type="checkbox"/> 0 Physics 195		Physics & Astronomy Student Seminar	
<input type="checkbox"/> 3 Educ 307* [Educ302,3]	Reading/Literacy in the Content Area			
<input type="checkbox"/> 4 Math 256	Discrete Structures and Linear Algebra			
		<input type="checkbox"/> 2 Math 329 S [Math361]	Intro to Teaching Secondary School Mathematics	
		<input type="checkbox"/> 3 Core-e.g. Literature*		
			Format Key: sem hrs credit, Course #, [prerequisite] (prerequisites for the upper-level physics courses are not listed), Course title.  An F or S immediately after the course number indicates Fall or Spring. + indicates a course offered every other year, * indicates a course typically offered in summer.	
<b>Fourth Year</b>	<b>Fall(15cr)</b>	<input type="checkbox"/> 4 Physics 335 F+	Classical Mechanics	
		<input type="checkbox"/> 3 Physics 343 S F+	Electromagnetism	
		<input type="checkbox"/> 2 Physics 339 F+	Advanced Classical Mechanics Laboratory	
		<input type="checkbox"/> 0 Physics 195	Physics & Astronomy Student Seminar	
		<input type="checkbox"/> 3 Elective		
			<input type="checkbox"/> 3 Elective	
		<b>INT</b>	<input type="checkbox"/> 3 Elective	
		<b>Fall(15cr)</b>	<input type="checkbox"/> 0 Physics 195	Physics & Astronomy Student Seminar
	<input type="checkbox"/> 3 Educ 398 [E302,3]		Integr Seminar: Intellect Foundations of Educ	
	<input type="checkbox"/> 3 Math 301 S [Math 256]		Foundations of Geometry	
<input type="checkbox"/> 3 Core-e.g. Arts				
<input type="checkbox"/> 3 Core-e.g. Global and Historical Studies				
		<input type="checkbox"/> 3 Elective		
			Programs are written with up to 17 semester hours each semester--the maximum allowed. Some students may wish to take additional summer courses so as to lighten the loads during semesters.	
<b>Fifth Year</b>	<b>Fall(15cr)</b>	<input type="checkbox"/> 12 Educ 346	Directed Teaching: Secondary	
		<input type="checkbox"/> 3 SCES 359	Seminar in Sec Teaching of Integrated Science	

