

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

First Year

Fall (16-17cr)	<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	<i>Foreign Language 201</i>	
	<input type="checkbox"/>	3	<i>English 101</i>	
	<input type="checkbox"/>	1	<i>IDIS 149 F</i> <i>First Year Seminar</i>	
	<input type="checkbox"/>	1	<i>Interdisciplinary 110</i> <i>or exemption exam</i>	
INT	<input type="checkbox"/>	3	<i>Interdisciplinary 150</i> <i>Developing A Christian Mind</i>	
	<input type="checkbox"/>	4	Physics 133 S [M171]	Mechanics and Gravity
Spring(17cr)	<input type="checkbox"/>	4	Math 172 [M171]	Calculus II
	<input type="checkbox"/>	0	Physics 195	Physics & Astronomy Student Seminar
	<input type="checkbox"/>	4	<i>Foreign Language 202</i> [FL201]	
	<input type="checkbox"/>	4	<i>Core-e.g. Hist 151 or 152*</i> <i>History of the West and the World I or II</i>	
	<input type="checkbox"/>	1	Educ 102	Introduction to Education

This worksheet is for students entering Calvin in the Fall of an even-numbered year. Two plans are presented because some required courses are offered only every-other year.

This worksheet assumes that 2 years of high school foreign language have been completed.

Second Year

Fall(16cr)	<input type="checkbox"/>	4	Physics 235 F [P133, M172]	Electricity & Magnetism
	<input type="checkbox"/>	4	Math 271 [Math 172]	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	<i>Core - e.g. Phil 153*</i> <i>Fundamental Questions in Philosophy</i>	
INT	<input type="checkbox"/>	3	<i>SCES 214</i> <i>Rhetoric in Culture Core</i>	
	<input type="checkbox"/>	2	<i>SCES 314 S+</i> <i>Integration Methods and Pedagogies for Sec Sci</i>	
Spring(17cr)	<input type="checkbox"/>	3	Physics 246 S+ [P235 or 221, & M172]	Waves, Optics and Optical Technology
	<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 256	Discrete Structures and Linear Algebra
	<input type="checkbox"/>	3	Educ 202 [Educ 102]	The Learner in the Educational Context
	<input type="checkbox"/>	3	<i>Core-e.g. Bibl/Theol. Foundations I*</i>	
<input type="checkbox"/>	1	<i>PE #2</i>		

Color Key:
 Blue-required in physics major, including cognates
 Magenta-additional courses required for math minor
 Red-professional education courses
 Black-core

Third Year

Fall(15cr)	<input type="checkbox"/>	4	Physics 335 F+	Classical Mechanics
	<input type="checkbox"/>	0	Physics 195	Physics & Astronomy Student Seminar
	<input type="checkbox"/>	3	Physics 345 F+	Electromagnetism
	<input type="checkbox"/>	2	Physics 339 F+	Advanced Classical Mechanics Laboratory
	<input type="checkbox"/>	3	<i>Elective</i>	
INT	<input type="checkbox"/>	3	<i>Core: e.g. Literature</i>	
	<input type="checkbox"/>	3	<i>Elective</i>	
Spring(17cr)	<input type="checkbox"/>	4	Physics 306 S+ [Phys235 or 222 & M172]	Introduction to Quantum Physics
	<input type="checkbox"/>	0	Phys 195	Physics & Astronomy Student Seminar
	<input type="checkbox"/>	4	Educ 302 [Educ 202]	Curriculum and Instruction for Diverse Learners
	<input type="checkbox"/>	3	Educ 303	Curriculum and Instruction: Practicum
	<input type="checkbox"/>	2	Math 329 S [M361]	Intro to Teaching Sec School Mathematics
	<input type="checkbox"/>	3	<i>Core-e.g. IDIS 205 for Societal Structures & CCE</i>	
<input type="checkbox"/>	1	<i>PE #3</i>		

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.

Fourth Year

Fall(17cr)	<input type="checkbox"/>	0	Physics 195	Physics & Astronomy Student Seminar
	<input type="checkbox"/>	4	Math 243 S [M172]	Statistics
	<input type="checkbox"/>	4	Math 361 F [2 Math 231 and above]	Real Analysis I
	<input type="checkbox"/>	3	Educ 307 [E302/303]	Reading/Literacy in the Content Area
	<input type="checkbox"/>	3	<i>Core-e.g. Bibl/Theological Foundations II</i>	
INT	<input type="checkbox"/>	3	<i>Core-e.g. Global and Historical Studies</i>	
	<input type="checkbox"/>	3	<i>Elective</i>	
Spring(15cr)	<input type="checkbox"/>	0	Physics 195	Physics & Astronomy Student Seminar
	<input type="checkbox"/>	3	Math 301 S	Foundations of Geometry
	<input type="checkbox"/>	3	Educ 398 [E302,3]	Integr Seminar: Intellect Foundations of Educ
	<input type="checkbox"/>	3	<i>Core-e.g. Arts</i>	
	<input type="checkbox"/>	3	<i>Elective</i>	
<input type="checkbox"/>	3	<i>Elective</i>		

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.

Fifth Year

Fall(15cr)	<input type="checkbox"/>	12	Educ 346	Directed Teaching: Secondary
	<input type="checkbox"/>	3	SCES 359 F	Seminar in Sec Teaching of Integrated Science



CALVIN
MINDS IN THE MAKING