

In-Depth Physics Major + Astronomy Minor (starting in even numbered year)

| | | | | | |
|---|--------------------|---|--|---|--------------------------------|
| First Year | Fall (17cr) | <input type="checkbox"/> 4 Physics 132 | Matter, Light and Energy | This worksheet <i>assumes</i> that 2 years of high school foreign language have been completed. | |
| | | <input type="checkbox"/> 0 Physics 195 | Seminar | | |
| | | <input type="checkbox"/> 4 Math 171 | Calculus I | | |
| | | <input type="checkbox"/> 4 Computer Science 106 | Intro to Scientific Computation and Modeling | | |
| | | <input type="checkbox"/> 4 <i>Foreign Language #1</i> | | | |
| | INT | <input type="checkbox"/> 1 <i>Interdisciplinary 149</i> | <i>First Year Seminar</i> | | |
| | | <input type="checkbox"/> 3 <i>Interdisciplinary 150</i> | <i>Developing A Christian Mind</i> | | |
| | | Spring (17cr) | <input type="checkbox"/> 4 Physics 133 | | Mechanics and Gravity |
| | | | <input type="checkbox"/> 0 Physics 195 | | Seminar |
| | | | <input type="checkbox"/> 4 Astronomy 212 | | Galactic Astronomy & Cosmology |
| <input type="checkbox"/> 4 Math 172 | Calculus II | | | | |
| <input type="checkbox"/> 4 <i>Foreign Language #2</i> | | | | | |
| <input type="checkbox"/> 1 <i>PE #1</i> | | | | | |

| | | | | |
|--|---|---|--|---------------------------------------|
| Second Year | Fall (17cr) | <input type="checkbox"/> 4 Physics 235 | Electricity & Magnetism | |
| | | <input type="checkbox"/> 0 Physics 195 | Seminar | |
| | | <input type="checkbox"/> 4 Math 271 | Multivariable Calculus | |
| | | <input type="checkbox"/> 3 <i>Rhetoric in Culture</i> | | |
| | | <input type="checkbox"/> 3 <i>English 101</i> | | |
| | INT | <input type="checkbox"/> 3 <i>Bibl/Theol. Foundations I</i> | | |
| | | <input type="checkbox"/> 3 <i>Cross Cultural Engagement</i> | | |
| | | Spring (17cr) | <input type="checkbox"/> 1 Physics 237 | Einstein's Theory of Relativity |
| | | | <input type="checkbox"/> 3 Physics 246 | Waves, Optics, and Optical Technology |
| | | | <input type="checkbox"/> 0 Physics 195 | Seminar |
| <input type="checkbox"/> 4 Astronomy 211 | Planetary & Stellar Astronomy | | | |
| <input type="checkbox"/> 4 Math 231 | Differential Equations & Linear Algebra | | | |
| <input type="checkbox"/> 4 <i>History 151 or 152</i> | | | | |
| <input type="checkbox"/> 1 <i>PE #2</i> | | | | |

| | | | | |
|---|---|--|---|--------------------------|
| Third Year | Fall (16cr) | <input type="checkbox"/> 4 Physics 335 | Classical Mechanics | |
| | | <input type="checkbox"/> 3 Physics 345 | Electromagnetism | |
| | | <input type="checkbox"/> 2 Physics 339 | Advanced Classical Mechanics Laboratory | |
| | | <input type="checkbox"/> 0 Physics 195 | Seminar | |
| | | <input type="checkbox"/> 4 Math 333 <i>or core</i> | Partial Differential Equations | |
| | INT | <input type="checkbox"/> 3 <i>Persons in Community</i> | | |
| | | <input type="checkbox"/> 3 <i>Elective</i> | | |
| | | Spring (16cr) | <input type="checkbox"/> 4 Physics 306 | Intro to Quantum Physics |
| | | | <input type="checkbox"/> 0 Physics 195 | Seminar |
| | | | <input type="checkbox"/> 3 Phys 346 | Advanced Optics |
| <input type="checkbox"/> 2 Phys 349 | Advanced Electromagnetism and Optics Laboratory | | | |
| <input type="checkbox"/> 1 Phys 347 | Relativistic Electrodynamics | | | |
| <input type="checkbox"/> 3 <i>Bibl/Theol Foundations II</i> or Math 333 | | | | |
| <input type="checkbox"/> 3 <i>Philosophy 153</i> | | | | |

| | | | | |
|---|------------------------------|---|--|-------------------------------------|
| Fourth Year | Fall (18cr) | <input type="checkbox"/> 4 Physics 365 | Thermodynamics and Statistical Mechanics | |
| | | <input type="checkbox"/> 3 Physics 375 | Quantum Mechanics I | |
| | | <input type="checkbox"/> 0 Physics 195 | Seminar | |
| | | <input type="checkbox"/> 2 Astronomy 384 | Modern Observational Astronomy | |
| | | <input type="checkbox"/> 3 <i>Global & Historical Studies</i> | | |
| | INT | <input type="checkbox"/> 3 <i>Societal Structures</i> | | |
| | | <input type="checkbox"/> 3 <i>Literature</i> | | |
| | | Spring (16cr) | <input type="checkbox"/> 3 <i>Elective</i> | |
| | | | <input type="checkbox"/> 3 Physics 376 | Quantum Mechanics II |
| | | | <input type="checkbox"/> 2 Physics 379 | Advanced Quantum Physics Laboratory |
| <input type="checkbox"/> 0 Physics 195 | Seminar | | | |
| <input type="checkbox"/> 1 Astronomy 395 | Astronomy Research & Writing | | | |
| <input type="checkbox"/> 3 <i>Arts</i> | | | | |
| <input type="checkbox"/> 3 <i>Integrative Studies</i> | | | | |
| <input type="checkbox"/> 3 <i>Literature</i> | | | | |
| <input type="checkbox"/> 1 <i>PE #3</i> | | | | |

NOTE: 4th year 1st semester is 18 credit hours. Students must get permission from the Registrar. See Course Catalog for details.



CALVIN
MINDS IN THE MAKING