

Michigan Technological University – Department of Physics

Typical Schedule: Physics Major with Secondary Education Certification (SPH1)

Note: Physics majors are expected to be calculus ready upon entering this program. Students with low math ACT or SAT scores should complete a summer course equivalent to MA1032. **Note:** The following is intended to serve as a guide. Students are strongly encouraged to discuss and review their schedules with their advisors. Three units of Co-Curricular activities are also required.

Year 1	
<p>Fall Semester</p> <p>PH1160 Honors Physics I- Mechanics (4) PH1161 Intro to Experimental Physics 1 (1) MA1160 Calculus with Technology I (4) CH1150 University Chemistry I (3) CH1150 University Chemistry Lab (1) CH1150 University Chemistry Recitation (1) UN1001 Perspectives on Inquiry (3)</p> <p style="text-align: right;">Total Credits: 17</p>	<p>Spring Semester</p> <p>PH1360 Honors Physics II (2)* PH1361 Intro to Experimental Physics II (1) PH2300 Univ Phys III – Fluids & Thermal (2)* MA2160 Calculus with Technology II (4) MA2320 Elementary Linear Algebra (2) UN1002 World Cultures (4) General education elective (3)</p> <p style="text-align: right;">Total Credits: 18</p>
Year 2	
<p>Fall Semester</p> <p>PH1600 Intro Astronomy (2) PH2020 Programming & Sci Error Analysis (1) PH2260 Honors Physics III- Electricity & Magnetism (4) PH2261 Intro to Experimental Physics III (1) MA3530 Intro to Differential Equations (3) UN2001 Composition (3) or UN2002 Institutions (3) General education elective (3)</p> <p style="text-align: right;">Total Credits: 17</p>	<p>Spring Semester</p> <p>PH2230 Electronics (4) PH2400 Univ Physics IV- Waves & Modern Physics (3) MA3160 Multivariable Calculus (4) Teaching Minor (3) UN2002 Institutions (3) or UN2001 Composition (3)</p> <p style="text-align: right;">Total Credits: 17</p>
Year 3	
<p>Fall Semester</p> <p>PH3110 Theoretical Mechanics I (3) PH3210 Optics (3) PH3320 Methods of Theoretical Physics (3) ED 3110 Psych Found of Learning (3)** ED 3210 Foundations of Education (2) ED 3410 Clinical Experience (1) Teaching Minor (3)</p> <p style="text-align: right;">Total Credits: 18</p>	<p>Spring Semester</p> <p>PH3300 Thermo & Statistical Physics (3) PH3410 Quantum Mechanics I (3) PH3480 Advanced Physics Laboratory (2) ED3100 Instructional Technology (2) General education elective (3) Teaching Minor (3) EH3985 CPR (1) <i>or first aid certificate</i></p> <p style="text-align: right;">Total Credits: 17</p>
Year 4	
<p>Fall Semester</p> <p>PH4010 Senior Colloquium (1) PH4210 Electricity & Magnetism I (3) ED4720 Methods of Teaching Science (2) HU4150 Literacy in Content Areas (4) ED4700 Fundamentals of Instruction (3) General education elective (3) Teaching Minor (2)</p> <p style="text-align: right;">Total Credits: 18</p>	<p>Spring Semester</p> <p>ED4910 Directed Teaching (12)</p> <p style="text-align: right;">Total Credits: 12</p>

*Half semester courses

** Counts toward HASS requirements

Updated November 10, 2010.