# BS in Physics Academic Map 2019-2020

## Degree in Three

Students would be expected to complete the following before starting at the University of North Texas. Students can earn AP credit, transfer credit or a combination of both:

<table>
<thead>
<tr>
<th>AP Exam</th>
<th>Score</th>
<th>Dual Credit or Transfer Credit</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Language and Composition</td>
<td>5</td>
<td>ENGL 1301 and 1302</td>
<td>6</td>
</tr>
<tr>
<td>History, U.S.</td>
<td>3, 4, 5</td>
<td>HIST 1301 and 1302</td>
<td>6</td>
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<tr>
<td>Chemistry</td>
<td>5</td>
<td>CHEM 1411 and 1412</td>
<td>8</td>
</tr>
<tr>
<td>Government and Politics-US</td>
<td>3, 4, 5</td>
<td>GOVT 2305</td>
<td>3</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>3, 4, 5</td>
<td>MATH 2313 (2413; 2513) and 2314 (2414)</td>
<td>6-9</td>
</tr>
<tr>
<td><strong>Credit:</strong></td>
<td>30</td>
<td></td>
<td>29-32</td>
</tr>
</tbody>
</table>

## Courses at UNT:

### Year One

<table>
<thead>
<tr>
<th>FALL</th>
<th>Hrs.</th>
<th>SPRING</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS I &amp; Lab Option</td>
<td>4</td>
<td>PHYS II &amp; Lab Option</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2730 Multi-Variable Calculus</td>
<td>3</td>
<td>MATH 2700 Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>PSCI 2306 US &amp; TX Constitutions &amp; Institut</td>
<td>3</td>
<td>CSCE 1030 Computer Science I</td>
<td>4</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td>Creative Arts</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td></td>
<td></td>
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<tr>
<td><strong>Total hours</strong></td>
<td>16</td>
<td><strong>Total hours</strong></td>
<td>14</td>
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### Year Two

<table>
<thead>
<tr>
<th>FALL</th>
<th>Hrs.</th>
<th>SPRING</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 3010/3030 Modern Physics &amp; Lab</td>
<td>4</td>
<td>PHYS 3420 Electronics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 3210 Mechanics</td>
<td>3</td>
<td>PHYS 4110 Stats. &amp; Thermal Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 3310 Math Methods in Phys Sci</td>
<td>3</td>
<td>PHYS Elective (Advanced)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3410 Differential Equations I</td>
<td>3</td>
<td>Language, Philosophy &amp; Culture</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total hours</strong></td>
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<td><strong>Total hours</strong></td>
<td>16</td>
</tr>
</tbody>
</table>

### Year Three

<table>
<thead>
<tr>
<th>FALL</th>
<th>Hrs.</th>
<th>SPRING</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 4210 Electricity and Magnetism</td>
<td>3</td>
<td>PHYS 4310 Quantum Mechanics</td>
<td>3</td>
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<tr>
<td>PHYS 4950 Senior Thesis</td>
<td>3</td>
<td>PHYS 4955 Senior Thesis Capstone</td>
<td>3</td>
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<tr>
<td>PHYS Elective (Advanced)</td>
<td>3</td>
<td>PHYS Elective (Advanced)</td>
<td>3</td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences</td>
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<td>Elective (Advanced)</td>
<td>1</td>
</tr>
<tr>
<td>Elective</td>
<td>1-4</td>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total hours</strong></td>
<td>13-16</td>
<td><strong>Total hours</strong></td>
<td>13</td>
</tr>
</tbody>
</table>

**Options for Advanced Physics Electives:**

- PHYS 4150 Experimental Physics I
- PHYS 4220 Electromagnetic Waves
- PHYS 4420 Physical Optics
- PHYS 4520 Nano Physics
- PHYS 4500 Intro to Solid-State Physics
- PHYS 4600 Computer Based Physics
- 4650 Astrophysics