Sample schedule for BS in physics (computational physics concentration) for transfer students

Assumes that the student has the AA/AS waiver and has completed 60 total credits, including MATH 113, 114, 213, 214 and PHYS 160, 161, 260, 261.

PHYS 251 can be waived if the student has taken an appropriate python programming course (e.g. CSC 201 at V.C.C.S.).

Number of credits in parentheses.

Courses designated “Elective” are entirely at the student's discretion.

ASTR 124 is not required. It is included to bring the total credit number to 120.

Students who complete a second major can omit two of the following courses from this sample schedule: ASTR 210, PHYS 306, 412.

**Fall of Year 1 (15)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PHYS 251</td>
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<tr>
<td>PHYS 301</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 303</td>
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</tr>
<tr>
<td>PHYS 305</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 311</td>
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</table>

Intro to Computer Techniques in Physics

Analytical Methods of Physics

Classical Mechanics

Electromagnetic Theory

Instrumentation

**Spring of Year 1 (15)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MATH 203</td>
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<tr>
<td>PHYS 306</td>
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<tr>
<td>PHYS 307</td>
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</tr>
<tr>
<td>PHYS 402</td>
<td>3</td>
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<td>ASTR 210</td>
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Linear Algebra

Wave Motion and Electromagnetic Radiation

Thermal Physics

Introduction to Quantum Mechanics and Atomic Physics

Introduction to Astrophysics

**Fall of Year 2 (15)**

<table>
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<th>Course</th>
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<tr>
<td>PHYS 407</td>
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<td>PHYS 410</td>
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<td>PHYS 416</td>
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<td>CDS 303</td>
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<tr>
<td>Elective</td>
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<td>ASTR 124</td>
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</table>

Senior Laboratory

Computational Physics I

Special Topics in Modern Physics

Scientific Data Mining

Introduction to Observational Astronomy
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 308</td>
<td>3</td>
<td>Modern Physics</td>
</tr>
<tr>
<td>PHYS 412</td>
<td>3</td>
<td>Solid State Physics and Applications</td>
</tr>
<tr>
<td>PHYS 408 or 409</td>
<td>3</td>
<td>Senior Research or Physics Internship</td>
</tr>
<tr>
<td>ENGH 302</td>
<td>3</td>
<td>Advanced Composition</td>
</tr>
<tr>
<td>CDS 302</td>
<td>3</td>
<td>Scientific Data and Databases</td>
</tr>
</tbody>
</table>