## 2022 - 2023 Major Map
### Physics, BA

**School/College:** The College of Liberal Arts and Sciences  
**Location:** Tempe campus  

**LAPHYBA**

### Term 1 0 - 14 Credit Hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 270: Calculus with Analytic Geometry I (MA) OR MAT 265: Calculus for Engineers I (MA)</td>
<td>3-4</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>CHM 113: General Chemistry I (SQ)</td>
<td>4</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>ENG 101 or ENG 102: First-Year Composition OR ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: First-Year Composition</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>LIA 101: Student Success in The College of Liberal Arts and Sciences</td>
<td>1</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Humanities, Arts and Design (HU) AND Cultural Diversity in the U.S. (C)</td>
<td>3</td>
<td></td>
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</tr>
</tbody>
</table>

**Maintain 2.00 GPA in Critical Tracking Courses.**

**Term hours subtotal:** 14-15

### Term 2 14 - 28 Credit Hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 271: Calculus with Analytic Geometry II (MA) OR MAT 266: Calculus for Engineers II (MA)</td>
<td>3-4</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>PHY 150: Physics I (SQ) OR PHY 121: University Physics I: Mechanics (SQ) AND PHY 122: University Physics Laboratory I (SQ)</td>
<td>4</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>ENG 101 or ENG 102: First-Year Composition OR ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: First-Year Composition</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
</tbody>
</table>

Second Language: Requirement satisfied through the following:  
* Completion of a language course at the intermediate level (202 or equivalent), including American Sign Language IV.  

**Complete ENG 101 OR ENG 105 OR ENG 107 course(s).**

**Maintain 2.00 GPA in Critical Tracking Courses.**

**Term hours subtotal:** 14-15

### Term 3 28 - 42 Credit Hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 272: Calculus with Analytic Geometry III (MA) OR MAT 267: Calculus for Engineers III (MA)</td>
<td>3-4</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>PHY 151: Physics II (SQ) OR PHY 131: University Physics II: Electricity and Magnetism (SQ) AND PHY 132: University Physics Laboratory II (SQ)</td>
<td>4</td>
<td>C</td>
<td></td>
</tr>
</tbody>
</table>

Second Language: Requirement satisfied through the following:  
* Completion of a language course at the intermediate level (202 or equivalent), including American Sign Language IV.  

### Notes
- ASU 101 or college-specific equivalent First-Year Seminar required of all first-year students.  
- CHM 114 may be taken in place of CHM 113.  
- Select your career interest communities and play me3@ASU.
Social-Behavioral Sciences (SB) AND Global Awareness (G)  
3  
- Maintain 2.00 GPA in Critical Tracking Courses.  
- Complete Mathematics (MA) requirement.  
Term hours subtotal: 14-15

<table>
<thead>
<tr>
<th>Term 4</th>
<th>42 - 59 Credit Hours</th>
<th>Critical course signified by ♦</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 201: Mathematical Methods in Physics I (CS)</td>
<td>3</td>
<td>C</td>
<td>• Visit Career and Professional Development Services and meet with a career advisor for assistance with career planning and networking.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHY 252: Physics III (SQ) OR PHY 241: University Physics III AND PHY 202: Programming for Physicists</td>
<td>4</td>
<td>C</td>
<td>• Complete an in person or virtual practice interview.</td>
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</tr>
<tr>
<td>Second Language: Requirement satisfied through the following:</td>
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</tr>
<tr>
<td>* Completion of a language course at the intermediate level (202 or equivalent), including American Sign Language IV.</td>
<td>4</td>
<td>C</td>
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</tr>
<tr>
<td>Humanities, Arts and Design (HU) AND Historical Awareness (H)</td>
<td>3</td>
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<td></td>
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<tr>
<td>Social-Behavioral Sciences (SB)</td>
<td>3</td>
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<tr>
<td>∆ Maintain 2.00 GPA in Critical Tracking Courses.</td>
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<tr>
<td>Term hours subtotal:</td>
<td>17</td>
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<table>
<thead>
<tr>
<th>Term 5</th>
<th>59 - 75 Credit Hours</th>
<th>Necessary course signified by ★</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 302: Mathematical Methods in Physics II</td>
<td>3</td>
<td>C</td>
<td></td>
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<tr>
<td>PHY 310: Classical Particles, Fields, and Matter I</td>
<td>3</td>
<td>C</td>
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<tr>
<td>PHY 314: Quantum Physics I</td>
<td>3</td>
<td>C</td>
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<tr>
<td>Second Language: Requirement satisfied through the following:</td>
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<tr>
<td>* Completion of a language course at the intermediate level (202 or equivalent), including American Sign Language IV.</td>
<td>4</td>
<td>C</td>
<td></td>
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<tr>
<td>Upper Division Humanities, Arts and Design (HU) OR Upper Division Social-Behavioral Sciences (SB)</td>
<td>3</td>
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<tr>
<td>Term hours subtotal:</td>
<td>16</td>
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<thead>
<tr>
<th>Term 6</th>
<th>75 - 90 Credit Hours</th>
<th>Necessary course signified by ★</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 311: Classical Particles, Fields, and Matter II</td>
<td>3</td>
<td>C</td>
<td>• Use Handshake to research employment opportunities.</td>
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<tr>
<td>Upper Division Physics Elective</td>
<td>3</td>
<td>C</td>
<td></td>
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<td></td>
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<tr>
<td>Literacy and Critical Inquiry (L)</td>
<td>3</td>
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<tr>
<td>Upper Division Elective</td>
<td>3</td>
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<tr>
<td>Elective</td>
<td>3</td>
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<tr>
<td>Complete Cultural Diversity in the U.S. (C) AND Global Awareness (G) AND Historical Awareness (H) course(s).</td>
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<tr>
<td>Term hours subtotal:</td>
<td>15</td>
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<thead>
<tr>
<th>Term 7</th>
<th>90 - 105 Credit Hours</th>
<th>Necessary course signified by ★</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Division Physics Elective</td>
<td>3</td>
<td>C</td>
<td>• Courses other than those in the track list below must be approved by the academic advisor in Physics.</td>
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</tr>
<tr>
<td>Complete 4 courses:</td>
<td></td>
<td></td>
<td>• Meet with your academic advisor for a final degree check before registering for your final semester.</td>
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</tr>
<tr>
<td>Upper Division Elective</td>
<td>12</td>
<td></td>
<td>• Develop your professional online presence.</td>
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</tbody>
</table>

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<thead>
<tr>
<th>Term 8</th>
<th>105 - 120 Credit Hours</th>
<th>Necessary course signified by ★</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Division Literacy and Critical Inquiry (L)</td>
<td>3</td>
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</tbody>
</table>

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First-Year Composition: All students are placed in ENG 101 unless submission of SAT, ACT, Accuplacer, IELTS, or TOEFL score, or college-level transfer credit or test credit equivalent to ASU's first-year composition course(s), determine otherwise. Students on Polytechnic, Downtown Phoenix and West Campuses are encouraged to complete the Directed Self-Placement survey to choose the first-year composition option they believe best suits their needs. Visit: https://cisa.asu.edu/DSP

Mathematics Placement Assessment score determines placement in first mathematics course.

Please keep in mind that the applicability of a specific transfer course toward an ASU degree program depends on the requirements of the department, division, college or school in which you are enrolled at ASU. Transfer agreements that guarantee the completion of university level requirements do not necessarily meet college and major requirements. Please consult with an advisor for more information.

**Total Hours:** 120
- **Upper Division Hours:** 45 minimum
- **Major GPA:** 2.00 minimum
- **Cumulative GPA:** 2.00 minimum
- **Total hrs at ASU:** 30 minimum
- **Hrs Resident Credit for Academic Recognition:** 56 minimum
- **Total Community College Hrs:** 64 maximum
- **Total College Residency Hrs:** 12 minimum

**General University Requirements Legend**

- **General Studies Core Requirements:**
  - Literacy and Critical Inquiry (L)
  - Mathematical Studies (MA)
  - Computer/Statistics/Quantitative Applications (CS)
  - Humanities, Arts and Design (HU)
  - Social-Behavioral Sciences (SB)
  - Natural Science - Quantitative (SQ)
  - Natural Science - General (SG)
General Studies Awareness Requirements:

- Cultural Diversity in the U.S. (C)
- Global Awareness (G)
- Historical Awareness (H)

First-Year Composition

General Studies designations listed on the major map are current for the 2022 - 2023 academic year.