# 2018 - 2019 Major Map

## Physics, BA

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

### LAPHYBA

#### Term 1 - 15 Credit Hours

<table>
<thead>
<tr>
<th>Critical course signified by</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 270: Calculus with Analytic Geometry I (MA)</td>
<td>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>
<td></td>
</tr>
</tbody>
</table>

* Maintain 2.00 GPA in Critical Tracking Courses.

**Term hours subtotal:** 15

#### Notes
- An SAT, ACT, Accuplacer, IELTS, or TOEFL score determines placement into first-year composition courses.
- Mathematics Placement Assessment score determines placement in mathematics course.
- ASU 101 or college-specific equivalent First-Year Seminar required of all freshman students
- Select your career interest area and play me3@ASU

#### Term 2 - 15 - 30 Credit Hours

<table>
<thead>
<tr>
<th>Critical course signified by</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 271: Calculus with Analytic Geometry II (MA)</td>
<td>4</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>PHY 150: Physics 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>Second Language: Requirement satisfied through the following: * 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>
</tr>
</tbody>
</table>

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

* Maintain 2.00 GPA in Critical Tracking Courses.

**Term hours subtotal:** 15

#### Notes
- PHY 121/122 and 131/132 may be used in place of PHY 150 and 151.
- ASU Language Placement: Only true beginners are eligible for 101-level courses. All other students are required to take a placement exam, regardless of prior credit earned.
- Join a student club or professional organization

#### Term 3 - 30 - 45 Credit Hours

<table>
<thead>
<tr>
<th>Critical course signified by</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 272: Calculus with Analytic Geometry III (MA)</td>
<td>4</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>PHY 151: Physics II (SQ)</td>
<td>4</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Second Language: Requirement satisfied through the following: * 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>
</tr>
<tr>
<td>Social-Behavioral Sciences (SB) AND Global Awareness (G)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Complete First-Year Composition requirement.

* Maintain 2.00 GPA in Critical Tracking Courses.

**Term hours subtotal:** 15

#### Notes
- PHY 121/122 and 131/132 may be used in place of PHY 150 and 151.

#### Term 4 - 45 - 62 Credit Hours

<table>
<thead>
<tr>
<th>Critical course signified by</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete Mathematics (MA) requirement.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Term hours subtotal:** 15

#### Notes
- PHY 201: Mathematical Methods in Physics I (CS) 3 C
- PHY 252: Physics III (SQ) 4 C
- PHY 302: Mathematical Methods in Physics II 3 C
- PHY 310: Classical Particles, Fields, and Matter I 3 C
- PHY 314: Quantum Physics I 3 C
- Upper Division Physics Breadth Course 3 C
- Upper Division Elective 3 C
- Elective 3 C
- Complete 4 courses:
  - Upper Division Elective 12

Term hours subtotal: 15
- Upper Division Literacy and Critical Inquiry (L) 3 C
- Complete 2 courses:
  - Upper Division Elective 6
- Elective 3 C
- Elective 3 C
- Complete 4 courses:
  - Upper Division Elective 12

Term hours subtotal: 15
- Upper Division Social-Behavioral Sciences (SB) 3
- Complete Cultural Diversity in the U.S. (C) AND Global Awareness (G) AND Historical Awareness (H) course(s).

Term hours subtotal: 15
- Complete 2 courses:
  - Upper Division Elective 6

Term hours subtotal: 12
- Upper Division Literacy and Critical Inquiry (L) 3 C
- Complete 2 courses:
  - Upper Division Elective 6
- Elective 3 C

Term hours subtotal: 12
- PHY 311: Classical Particles, Fields, and Matter II 3 C
- Upper Division Physics Breadth Course 3 C
- Upper Division Elective 3 C
- Elective 3 C

Term hours subtotal: 15
- Complete Cultural Diversity in the U.S. (C) AND Global Awareness (G) AND Historical Awareness (H) course(s).

Term hours subtotal: 15
- Complete 2 courses:
  - Upper Division Elective 6

Term hours subtotal: 12
- Upper Division Literacy and Critical Inquiry (L) 3 C
- Complete 2 courses:
  - Upper Division Elective 6
- Elective 3 C

Term hours subtotal: 12
- PHY 311: Classical Particles, Fields, and Matter II 3 C
- Upper Division Physics Breadth Course 3 C
- Upper Division Elective 3 C
- Elective 3 C

Term hours subtotal: 15
- Complete Cultural Diversity in the U.S. (C) AND Global Awareness (G) AND Historical Awareness (H) course(s).

Term hours subtotal: 15
- Complete 2 courses:
  - Upper Division Elective 6

Terms
- Complete 4 courses:
  - Upper Division Elective 12

Term hours subtotal: 15
- Complete Cultural Diversity in the U.S. (C) AND Global Awareness (G) AND Historical Awareness (H) course(s).

Term hours subtotal: 15
- Complete 2 courses:
  - Upper Division Elective 6

Term hours subtotal: 12
- Complete Cultural Diversity in the U.S. (C) AND Global Awareness (G) AND Historical Awareness (H) course(s).

Term hours subtotal: 15
- Complete 2 courses:
  - Upper Division Elective 6

Term hours subtotal: 12
- Complete Cultural Diversity in the U.S. (C) AND Global Awareness (G) AND Historical Awareness (H) course(s).

Term hours subtotal: 15
- Complete 2 courses:
  - Upper Division Elective 6

Term hours subtotal: 12

Visit Career and Professional Development Services and meet with a career advisor for assistance with career planning and networking.

Complete an in person or virtual practice interview

Courses other than those in the track list must be approved by the academic advisor in Physics.

Use Handshake to research employment opportunities

Courses other than those in the track list must be approved by the academic advisor in Physics.

Meet with your academic advisor for final degree check before registering for final semester.

Develop your professional online presence

Apply for graduation through your My ASU.

Apply for full-time career opportunities
Notes:

- 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.

Physics Breadth Course

- PHY 462: Particle and Nuclear Physics
- PHY 480: Methods of Teaching Physics
- PHY 494: Computational Methods in Physics
- PHY 494: Introduction to Nanoscience
- PHY 495: Project Research
- PHY 498: Pro-Seminar
- PHY 499: Individualized Instruction

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 2018 - 2019 academic year.