













## 2023 - 2024 Major Map





### Physics, BA





School/College: The College of Liberal Arts and Sciences  
LAPHYBA



Term 1 0 - 14 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 MAT 270: Calculus with Analytic Geometry I (MA) OR MAT 265: Calculus for Engineers I (MA)	3-4	C	<ul style="list-style-type: none"> <li>ASU 101 or college-specific equivalent First-Year Seminar required of all first-year students.</li> <li>CHM 114 may be taken in place of CHM 113.</li> <li>Select your <b>career interest communities</b> and play <b>me3@ASU</b>.</li> </ul>
CHM 113: General Chemistry I (SQ)	4	C	
ENG 101 or ENG 102: First-Year Composition OR ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: First-Year Composition	3	C	
LIA 101: Student Success in The College of Liberal Arts and Sciences	1	C	
Humanities, Arts and Design (HU) AND Cultural Diversity in the U.S. (C)	3		
 Maintain 2.00 GPA in Critical Tracking Courses.			
Term hours subtotal:		14-15	
Term 2 14 - 28 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 MAT 271: Calculus with Analytic Geometry II (MA) OR MAT 266: Calculus for Engineers II (MA)	3-4	C	<ul style="list-style-type: none"> <li><b>ASU Language Placement:</b> Only true beginners are eligible for 101-level courses. All other students are required to take a placement exam, regardless of prior credit earned.</li> <li>Join a <b>student club or professional organization</b>.</li> </ul>
 PHY 150: Physics I (SQ) OR PHY 121: University Physics I: Mechanics (SQ) AND PHY 122: University Physics Laboratory I (SQ)	4	C	
ENG 101 or ENG 102: First-Year Composition OR ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: First-Year Composition	3	C	
Second Language: Requirement satisfied through the following: * Completion of a language course at the intermediate level (202 or equivalent), including American Sign Language IV.	4	C	
 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 Critical course signified by 	Hours	Minimum Grade	Notes
 MAT 272: Calculus with Analytic Geometry III (MA) OR MAT 267: Calculus for Engineers III (MA)	3-4	C	<ul style="list-style-type: none"> <li>Look into <b>internship opportunities</b>.</li> </ul>
 PHY 151: Physics II (SQ) OR PHY 131: University Physics II: Electricity and Magnetism (SQ) AND PHY 132: University Physics Laboratory II (SQ)	4	C	
Second Language: Requirement satisfied through the following: * Completion of a language course at the intermediate level (202 or equivalent), including American Sign Language IV.	4	C	
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

Term 4 42 - 59 Credit Hours <b>Critical course signified by</b> 	Hours	Minimum Grade	Notes
 PHY 201: Mathematical Methods in Physics I (CS)	3	C	<ul style="list-style-type: none"> <li>Visit <a href="#">Career and Professional Development Services</a> and meet with a career advisor for assistance with career planning and networking.</li> </ul>
 PHY 252: Physics III (SQ) OR PHY 241: University Physics III AND PHY 202: Programming for Physicists	4	C	
Second Language: Requirement satisfied through the following: * Completion of a language course at the intermediate level (202 or equivalent), including American Sign Language IV.	4	C	
Humanities, Arts and Design (HU) AND Historical Awareness (H)	3		
Social-Behavioral Sciences (SB)	3		
 Maintain 2.00 GPA in Critical Tracking Courses.			
Term hours subtotal:		17	

Term 5 59 - 75 Credit Hours <b>Necessary course signified by</b> 	Hours	Minimum Grade	Notes
 PHY 302: Mathematical Methods in Physics II	3	C	<ul style="list-style-type: none"> <li>Develop your online <a href="#">professional presence</a>.</li> </ul>
 PHY 310: Classical Particles, Fields, and Matter I	3	C	
 PHY 314: Quantum Physics I	3	C	
Second Language: Requirement satisfied through the following: * Completion of a language course at the intermediate level (202 or equivalent), including American Sign Language IV.	4	C	
Upper Division Humanities, Arts and Design (HU) OR Upper Division Social-Behavioral Sciences (SB)	3		
Term hours subtotal:		16	

Term 6 75 - 90 Credit Hours <b>Necessary course signified by</b> 	Hours	Minimum Grade	Notes
 PHY 311: Classical Particles, Fields, and Matter II	3	C	<ul style="list-style-type: none"> <li>Complete a <a href="#">practice interview</a>.</li> </ul>
Upper Division Physics Elective	3	C	
Literacy and Critical Inquiry (L)	3		
Upper Division Elective OR PHY 484: Internship	3		
Elective	3		
 Complete Cultural Diversity in the U.S. (C) AND Global Awareness (G) AND Historical Awareness (H) course(s).			
Term hours subtotal:		15	

Term 7 90 - 105 Credit Hours <b>Necessary course signified by</b> 	Hours	Minimum Grade	Notes
 Upper Division Physics Elective	3	C	<ul style="list-style-type: none"> <li>Courses other than those in the track list below must be approved by the Department of Physics academic advisor.</li> <li>Meet with your academic advisor for a final degree check before registering for your final semester.</li> <li>Use <a href="#">Handshake</a> to view career postings.</li> </ul>
Complete 4 courses:	12		
Upper Division Elective			
Term hours subtotal:		15	

Term 8 105 - 120 Credit Hours <b>Necessary course signified by</b> 	Hours	Minimum Grade	Notes
 Upper Division Literacy and Critical Inquiry (L)	3		<ul style="list-style-type: none"> <li>Apply for graduation.</li> <li>Apply for <a href="#">full-time career opportunities</a>.</li> </ul>
Complete 2 courses:	6		
Upper Division Elective			
Complete 2 courses:			

## Hide Course List(s)/Track Group(s)

## Upper Division Physics Elective

PHY 315: Quantum Physics II

PHY 333: Electronic Circuits and  
Measurements

PHY 334: Advanced Laboratory I (L)

PHY 361: Introductory Modern Physics

PHY 432: Computational Methods in  
Physics

PHY 452: Physical Optics

PHY 462: Particle and Nuclear Physics

PHY 480: Methods of Teaching Physics

PHY 481: Materials Physics I

PHY 494: Special Topics

PHY 495: Project Research

PHY 498: Pro-Seminar

## Notes:

- 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 next to courses on the major map were valid for the 2023 - 2024 academic year. Please refer to the course catalog for current General Studies designations at time of class registration. General Studies credit is applied according to the designation the course carries at the time the class is taken.