2024 - 2025 Major Map
Astronomical and Planetary Sciences, BS

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

Term 1 - A 0 - 7 Credit Hours	Hours	Minimum Grade	Notes
ASU 101-LA: The ASU Experience	1		• ASU 101 or college-specific equivalent First-Year Seminar is required for all first-year students. • Students who place into MAT 210 should take the course in term 1 to complete the MA requirement.
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	
Mathematics (MATH)	3	C	
Term hours subtotal:	7		

Term 1 - B 7 - 17 Credit Hours Critical course signified by	Hours	Minimum Grade	Notes
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	• View ASU Online first-year student registration information here.
AST 111: Introduction to Solar Systems Astronomy (SCIT OR SQ)	4	C	
Social and Behavioral Sciences (SOBE)	3		
Term hours subtotal:	10		

Term 2 - A 17 - 21 Credit Hours Critical course signified by	Hours	Minimum Grade	Notes
AST 112: Introduction to Stars, Galaxies, and Cosmology (SCIT OR SQ)	4	C	• Select your Career Interest Communities and play me3@ASU.
Term hours subtotal:	4		

Term 2 - B 21 - 30 Credit Hours Critical course signified by	Hours	Minimum Grade	Notes
MAT 210: Brief Calculus (MATH OR MA) OR MAT 265: Calculus for Engineers I (MATH OR MA)	3	C	
Humanities, Arts and Design (HUAD)	3		
Elective	3		
Complete ENG 101 or ENG 105 or ENG 107 course(s)			
Term hours subtotal:	9		

Term 3 - A 30 - 37 Credit Hours Critical course signified by	Hours	Minimum Grade	Notes

PHY 111: General Physics (SCIT OR SQ) AND PHY 113: General Physics Laboratory (SCIT OR SQ)	4	C	• Review the Career Guide for ASU Online Students to learn about available career planning resources.
Humanities, Arts and Design (HUAD)	3		
Term hours subtotal:	7		

Term 3 - B 37 - 44 Credit Hours Critical course signified by	Hours	Minimum Grade	Notes
PHY 112: General Physics (SCIT OR SQ) AND PHY 114: General Physics Laboratory (SCIT OR SQ)	4	C	
Governance and Civic Engagement (CIVI)	3		
Complete First-Year Composition requirement.			
Complete Mathematics (MATH) requirement.			
Term hours subtotal:	7		

Term 4 - A 44 - 53 Credit Hours	Hours	Minimum Grade	Notes
Sustainability (SUST)	3		• Register for a Handshake account and participate in virtual career advising.
Complete 2 courses: Elective	6		
Term hours subtotal:	9		

Term 4 - B 53 - 60 Credit Hours Critical course signified by	Hours	Minimum Grade	Notes
SES 106: Habitable Worlds (SCIT OR SQ)	4	C	
Global Communities, Societies and Individuals (GCSI)	3		
Term hours subtotal:	7		

Term 5 - A 60 - 69 Credit Hours Necessary course signified by	Hours	Minimum Grade	Notes
AST 301: Physics of Astrophysics	3	C	• AST 301 and SES 350 are session C courses (15 weeks long).
SES 350: Engineering Systems and Experimental Problem Solving (QTRS OR CS)	3	C	
Upper Division Elective	3		
Term hours subtotal:	9		

Term 5 - B 69 - 75 Credit Hours	Hours	Minimum Grade	Notes
Astronomical and Planetary Sciences Major Electives	3	C	• Major Elective options vary in credit hours. Depending on chosen

	Science and Society Elective	3	C	courses, overall elective hours may vary.
	Term hours subtotal:	6		

Term 6 - A 75 - 84 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ AST 321: Stellar and Planetary Astrophysics	3	C	• AST 321 is a session C course (15 weeks long). • Develop your professional online presence.
SES 376: Communicating Astronomical and Planetary Sciences I	3	C	
Upper Division Elective	3		
Term hours subtotal:	9		

Term 6 - B 84 - 90 Credit Hours	Hours	Minimum Grade	Notes
SES 377: Communicating Astronomical and Planetary Sciences II	3	C	• Use Handshake to research employment opportunities. • Major Elective options vary in credit hours. Depending on chosen courses, overall elective hours may vary.
Astronomical and Planetary Sciences Major Electives	3-4	C	
Term hours subtotal:	6-7		

Term 7 - A 90 - 99 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ AST 322: Introduction to Galactic and Extragalactic Astrophysics	3	C	• AST 322 is a session C course (15 weeks long). • Major Elective options vary in credit hours. Depending on chosen courses, overall elective hours may vary. • Apply for full-time career opportunities.
Astronomical and Planetary Sciences Major Electives	3	C	
Upper Division Elective	3		
Term hours subtotal:	9		

Term 7 - B 99 - 105 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ Upper Division Astronomical and Planetary Sciences Major Electives	3	C	• Major Elective options vary in credit hours. Depending on chosen courses, overall elective hours may vary.
Upper Division Elective	3		
Term hours subtotal:	6		

Term 8 - A 105 - 114 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ Upper Division Astronomical and Planetary Sciences Major Electives	3	C	• Major Elective options vary in credit hours. Depending on chosen courses, overall elective hours may vary.
Upper Division Science and Society Elective	3	C	
Upper Division Elective	3		

Term hours subtotal:	9	

Term 8 - B 114 - 120 Credit Hours	Hours	Minimum Grade	Notes
American Institutions (AMIT)	3		
Upper Division Elective	3		
Term hours subtotal:	6		

- All students pursuing a BS or BSP degree in The College of Liberal Arts and Sciences must complete two courses from the Science and Society list found at https://thecollege.asu.edu/student-resources/science-society. At least one of the two courses must be upper division and students must earn a C or better in the courses. Both Science and Society courses (i.e., all six credits) may count towards any major, minor, related fields, and ASU General Studies requirements.

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

Astronomical and Planetary Sciences Major Electives
BIO 181: General Biology I (SCIT OR SQ)
BIO 182: General Biology II (SCIT OR SG)
BIO 340: General Genetics
BIO 345: Evolution
CHM 113: General Chemistry I (SCIT OR SQ)
CHM 114: General Chemistry for Engineers (SCIT OR SQ)
CHM 116: General Chemistry II (SCIT OR SQ)
DAT 300: Mathematical Tools for Data Science
DAT 301: Exploring Data in R and Python
GLG 101: Introduction to Geology I (Physical) (SCIT OR SQ) AND GLG 103: Introduction to Geology I: Laboratory (SCIT OR SQ)
GLG 108: Water Planet (SCIT OR SQ)
MAT 266: Calculus for Engineers II (MATH OR MA)
MAT 267: Calculus for Engineers III (MATH OR MA)
MAT 275: Modern Differential Equations (MATH OR MA)
MAT 343: Applied Linear Algebra
MCO 307: The Digital Audience
MCO 335: Social Media Foundations
MCO 425: Digital Media Literacy I

Upper Division Astronomical and Planetary Sciences Major Electives
BIO 340: General Genetics
BIO 345: Evolution
DAT 300: Mathematical Tools for Data Science
DAT 301: Exploring Data in R and Python
MAT 343: Applied Linear Algebra
MCO 307: The Digital Audience
MCO 335: Social Media Foundations
MCO 425: Digital Media Literacy I
PHI 314: Philosophy of Science (HUAD OR HU)
PHY 302: Mathematical Methods in Physics II
PHY 310: Classical Particles, Fields, and Matter I
PHY 311: Classical Particles, Fields, and Matter II
PHY 314: Quantum Physics I
PHY 315: Quantum Physics II
PHY 334: Advanced Laboratory I (L)
PHY 361: Introductory Modern Physics
PHY 412: Classical Particles, Fields, and Matter III
PHY 441: Statistical and Thermal Physics
SES 421: Foundations of Planetary Science
TWC 401: Fundamentals of Technical Communication (L)

PHI 314: Philosophy of Science (HUAD OR HU)

PHY 201: Mathematical Methods in Physics I (MATH OR CS)

PHY 121: University Physics I: Mechanics (SCIT OR SQ)

PHY 122: University Physics Laboratory I (SCIT OR SQ)

PHY 131: University Physics II: Electricity and Magnetism (SCIT OR SQ)

PHY 132: University Physics Laboratory II (SCIT OR SQ)

PHY 241: University Physics III

PHY 302: Mathematical Methods in Physics II

PHY 310: Classical Particles, Fields, and Matter I

PHY 311: Classical Particles, Fields, and Matter II

PHY 314: Quantum Physics I

PHY 315: Quantum Physics II

PHY 334: Advanced Laboratory I (L)

PHY 361: Introductory Modern Physics

PHY 412: Classical Particles, Fields, and Matter III

PHY 441: Statistical and Thermal Physics

SES 107: A Solar System Journey (SCIT OR SG)

SES 141: Energy In Everyday Life (SCIT OR SQ)

SES 225: Global Biogeochemical Cycles

SES 421: Foundations of Planetary Science

STP 226: Elements of Statistics (QTRS OR CS)

TWC 401: Fundamentals of Technical Communication (L)

TWC 446: Technical and Scientific Reports (L)

TWC 446: Technical and Scientific Reports (L)

- **Total Hours:** 120
- **Upper Division Hours:** 45 minimum
- University Undergraduate Graduation Requirements

Notes:

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.

General Studies designations listed next to courses on the major map were valid for the 2024 - 2025 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.