

BACHELOR OF ARTS IN PHYSICS – PHYS ASSOCIATE DEGREE FOR TRANSFER (ADT) ROADMAP

This is a sample pathway for students who transfer to San Francisco State University in the current Bulletin year with an AS-T in Physics. Twenty-four units in the major (MATH 226, MATH 227, MATH 228, PHYS 220, PHYS 222, PHYS 230, PHYS 232, PHYS 240, and PHYS 242) and all lower-division GE requirements have been satisfied. Additional units in the major may have been satisfied. Check with a major advisor about the most appropriate course sequence. **Degree completion guaranteed in 60 units; see the Associate Degree for Transfer (ADT) section for more information (<http://bulletin.sfsu.edu/undergraduate-admissions/transfer-students/>).**

To Do at SF State:

Enough total units to reach 120 minimum for graduation; 30 units minimum at the upper-division level; to include the following:

University-Wide Requirements: 9–15 Units

- American Institutions (0–6 units): US History, US Government, California State and Local Government requirements if not taken before transfer.
- Upper-Division GE (9 units): Courses required for the major may double-count if approved for UD GE.
- Students entering the major with the AS-T in Physics are not required to fulfill SF State Studies requirements.
- Complementary Studies is met in major with required mathematics.

Physics B.A. Major: 30 Units

MATH 226, MATH 227, MATH 228, PHYS 220, PHYS 222, PHYS 230, PHYS 232, PHYS 240, and PHYS 242 met in transfer.

- Prerequisites (4-7).
- Upper-Division Requirements (20 units).
- Upper-Division Electives (0-3 units).
- Culminating Experience (3 units).

University Electives: 15 or More Units

Depending on course choices made at the community college, how transferred units are applied to the requirements above, and course choices at SF State. Some courses may meet more than one requirement, e.g. both in UD GE and the major.

Course	Title	Units	PHYS 385	Introduction to Theoretical Physics I (Major Upper-Division Core)	3
First Semester					
Select One (Major Upper-Division Core):		3			
CSC 309	Computer Programming				
MATH 209	Mathematical Computing				
MATH 245	Elementary Differential Equations and Linear Algebra (Major Prerequisite) ¹	3			
PHYS 200	Planning for Success as a Physics & Astronomy Major (Major Prerequisite)	1			
PHYS 320 & PHYS 321	Modern Physics I and Modern Physics Laboratory (Major Upper-Division Core)	5			
			Second Semester		
			PHYS 360	Electricity and Magnetism I (Major Upper-Division Core)	3
			PHYS 370	Thermodynamics and Statistical Mechanics	3
			Major Elective - Take One ²		3
			GE Area UD-B: Upper-Division Physical and/or Life Sciences		3
			GE Area UD-C: Upper-Division Arts and/or Humanities		3
				Units	15
			Third Semester		
			PHYS 330	Analytical Mechanics I (Major Upper-Division Core)	3

PHYS 491GW	Advanced Laboratory Techniques I - GWAR (Major Upper- Division Core)	3
GE Area UD-D: Upper-Division Social Sciences		3
U.S. and California Government (http://bulletin.sfsu.edu/undergraduate-education/american-institutions/#usg) or University Elective if met in transfer		3
US History (http://bulletin.sfsu.edu/undergraduate-education/american-institutions/#USHaGR) or University Elective if met in transfer		3
	Units	15
Fourth Semester		
University Elective - Take Five		15
	Units	15
	Total Units	60

¹ Students may also fulfill this requirement with both MATH 225 and MATH 376. This option may increase time to graduation. Speak with an advisor.

² **Electives (0-3 units)**
Choose enough upper-division PHYS and/or ASTR courses to reach 54 units for the major. Students who take MATH 225 & MATH 376 will not need to take a PHYS or ASTR elective.