West Texas A&M University
Advising Services
Degree Checklist
2026-2027

NAME:_____ **WT ID:**_____ **DATE:**_____

Physics
Department of Chemistry and Physics
NSB 106 (806) 651-2940

Bachelor of Science Degree
BS.PHYSICS.TPC (138)

CORE CURRICULUM COURSES: 42 HOURS ♦	HRS	
Communication (Core 10)		
ENGL 1301 Intro. to Academic Writing & Argumentation **OR** ENGL 1311 Writing About Ideas	3	
COMM 1315, 1318, or 1321	3	
Mathematics (Core 20)		
See **University Core Requirements** below	(3)	
Life and Physical Sciences (Core 30)		
See **University Core Requirements** below	(6)	
Language, Philosophy and Culture (Core 40)		
ANTH 2351, ENGL 2321*, 2326*, 2331*, 2341*, 2343*; HIST 2311, 2323, 2372; MCOM 1307; PHIL 1301, 2374; SPAN 2311*, 2312*/**, 2313*, 2315*, or 2371 **Choose 1**	3	
Creative Arts (Core 50)		
ARTS 1301, 1303, 1304; DANC 2303; MUSI 1306, 1307 (for music majors), 1310; or THRE 1310 **Choose 1**	3	
American History (Core 60)		
HIST 1301, 1302, 2301, 2381, or 2382 **Choose 2**	6	
Government/Political Science (Core 70)		
POSC 2305 and 2306	6	
Social and Behavioral Sciences (Core 80)		
AGBE 2317*; COMM 2377; CRIJ 1301; ECON 2301, 2302; GEOG 1302; PSYC 2301; SOCI 1301 **Choose 1**	3	
Component Area Option (Core 90)		
See **University Core Requirements** below	(6)	
PHYSICS MAJOR REQUIREMENTS: 64-68 HOURS **A grade of "C" or better must be earned in all courses required for major.**		
UNIVERSITY CORE REQUIREMENTS: 15 HOURS ♦		
CORE 20 MATH 1314*, 1316*, 1324*, 2412*[3], or 2413*[3]	3	
CORE 30 PHYS 2425*[3] Calculus Physics I	3	
CORE 30 PHYS 2426*[3] Calculus Physics II	3	
CORE 90 ENGL 1302* Research and Rhetoric **OR** ENGL 2311* Introduction to Professional and Technical Communication	3	
CORE 90 PHYS 2425L[1], 2426L[1] **AND** IDS 1071[1], MATH 2412[1], or 2413[1]	3	
PHYSICS REQUIREMENTS: 49-53 HOURS		
PHYS 3310* Modern Physics I	3	
PHYS 3320* Thermodynamics	3	
PHYS 3330* Mechanics I	3	
PHYS 3340* Electricity and Magnetism I	3	
PHYS 3350* Advanced Physics Laboratory	3	
PHYS 4103* Seminar in Physics	1	
PHYS 4197* Research in Physics	1	
PHYS 4320* Quantum Mechanics I	3	
PHYS 4340* Mathematical Methods	3	
PHYS 4360* Nuclear Physics	3	
MATH 1316* Plane Trigonometry **OR** MATH 2412* Pre-Calculus **(if not taken to satisfy Core 20)**	0-4	
MATH 2413* Calculus I	4	
MATH 2414* Calculus II	4	
MATH 3340* Calculus III	3	
MATH 3342* Differential Equations I	3	
CS 1315* Programming Fundamentals **OR** CS 1337 Introduction to Object-Oriented Programming	3	
Take six hours from: PHYS 3323* Physics of Medical Imaging PHYS 3380* Intro. to Astrophysics PHYS 4310* Modern Physics II PHYS 4330* Optics PHYS 4350* Computational Physics PHYS 4390* Solid State Physics	6	
BACHELOR OF SCIENCE REQUIREMENTS **Covered by requirements for major.**	**OPTION**	
ELECTIVES: 25-29 HOURS **At least one hour must be advanced.**		
ELECTIVES BY ADVISEMENT ELECTIVES should be in a support field. CHEM 1411, CHEM 1412, MATH 3311, and MATH 3321 are recommended.	25-29	
MINIMUM HRS REQUIRED TO COMPLETE DEGREE	**120**	

* Indicates prerequisites—see catalog for more information.
** Or an equivalent course (second year, second semester) in a foreign language.

NOTE: This is NOT a degree plan. All undergraduate students must request an official degree plan from their academic dean's office by the time they have completed 30 credit hours.

WTAMU ADVISING SERVICES – 2026-2027 Curriculum Guide

Major: Physics, B.S. **BS.PHYSICS.TPC (138)**

Year 1: Fall	
CORE 10 (Communication) – ENGL 1301 or 1311	3
CORE 20 (Mathematics) – MATH 1314 College Algebra	3
CORE 60 (American History) – See checklist for options[1]	3
CORE 70 (Govt./Political Sci.) – POSC 2306	3
CORE 90 (Comp. Area Opt.) – IDS 1071	1
Total:	13

Year 1: Spring	
CORE 10 (Communication) – COMM 1315, 1318 or 1321	3
CORE 60 (American History) – See checklist for options[1]	3
CORE 70 (Govt./Political Sci.) – POSC 2305	3
CORE 90 (Comp. Area Opt.) – ENGL 1302 or 2311	3
MATH 1316 Plane Trig. **or** MATH 2412 Pre-Calculus Math **(2412 is recommended)**	3-4
Total:	15-16

Year 2: Fall	
CORE 30 (Life & Phys. Sci.) – PHYS 2425/2425L Calculus Physics I **(4th hour goes toward Core 90)**	4
CORE 40 (Lang., Phil. & Culture) – See checklist for options[1]	3
CORE 50 (Creative Arts) – See checklist for options[1]	3
MATH 2413 Calculus I	4
Elective (by advisement)	4
Total:	18

Year 2: Spring	
CORE 30 (Life & Phys. Sci.) – PHYS 2426/2426L Calculus Physics II **(4th hour goes toward Core 90)**	4
CORE 80 (Soc. & Behav. Sci.) – See checklist for options[1]	3
CS 1315 Programming Fundamentals **or** CS 1337 Intro. to Object-Oriented Programming	3
MATH 2414 Calculus II	4
Elective (by advisement)	4
Total:	18

Year 3: Fall	
MATH 3340 Calculus III	3
PHYS 3320 Thermodynamics	3
PHYS 3330 Mechanics I	3
Elective (by advisement)	3
Elective (by advisement)	3
Total:	15

Year 3: Spring	
MATH 3342 Differential Equations I	3
PHYS 3310 Modern Physics I	3
PHYS 3350 Advanced Physics Laboratory	3
Elective (by advisement)	3
Elective (by advisement)	3
Total:	15

Year 4: Fall	
PHYS 3340 Electricity and Magnetism I	3
PHYS 4197 Research in Physics	1
PHYS 4320 Quantum Mechanics I	3
PHYS Elective (1) – (See [3] below)	3
Elective (by advisement)	3
Total:	13

Year 4: Spring	
PHYS 4103 Seminar in Physics	1
PHYS 4340 Mathematical Methods	3
PHYS 4360 Nuclear Physics	3
PHYS Elective (2) – (See [3] below)	3
Elective (by advisement)	3
Total:	13

[1] **CORE:** Physics majors are required to take specific courses for Core 20, Core 30 and Core 90. For all other categories, they may select from any available options (see degree checklist). Apart from the major-specific core requirements, there is no set order in which core courses must be taken.

[2] **CORE 90:** One of the six hours required for Core 90 may be satisfied by IDS 1071 (if taken) or the fourth hour from MATH 2412 or 2413.

[3] **PHYSICS ELECTIVE:** Take six hours from PHYS 3323, 3380, 4310, 4330, 4350, 4390.

Identified Marketable Skills	Top Three Local Employers or Industries/Professional Programs/Possible Career Opportunities
Procedure development – Chemical analysis – Data analysis	Bell Helicopter – Pantex – Servitech

Additional notes:

- The core curriculum must total exactly 42 hours; excess hours must be moved to the major as an elective or a major requirement and stay within the 120-hour requirement or approved total submitted to the Coordinating Board for degree requirements. Some majors specify particular courses to meet core curriculum requirements when options are available.
- At least 36 hours of advanced work (3000- or 4000-level courses) for which tuition is paid must be earned at WTAMU. A maximum of six semester hours in religion (RELI) and six semester hours in physical education (PHED) courses can count toward a baccalaureate degree.