

**West Texas A&M University
Advising Services
Degree Checklist
2015-2016**

NAME: _____ WT ID: _____ DATE: _____

Physics

**Department of Mathematics, Chemistry and Physics
Classroom Center, Room 420 (806)651-2540**

CORE CURRICULUM COURSES: 42 HOURS ♦		HRS
Communication (Code 10)		
ENGL 1301 Introduction to Academic Writing and Argumentation	3	
COMM 1315, 1318, or 1321	3	
Mathematics (Code 20)		
See University Core Requirements below	(3)	
Life and Physical Sciences (Code 30)		
See University Core Requirements below	(6)	
Language, Philosophy and Culture (Code 40)		
ANTH 2351, ENGL 2321*, 2326*, 2331*, 2341*, 2343*; HIST 2311, 2323, 2372; PHIL 1301, 2374; SPAN 2311*, 2312*/**, 2313*, 2315*/**, or 2371	3	Choose 1
Creative Arts (Code 50)		
ARTS 1303, ARTS 1304; DANC 2303; HUMA 1315; MUSI 1306 or 1208 and 1209* (extra MUSI hour moves to Code 90); or THRE 1310	3	Choose 1
American History (Code 60)		
HIST 1301, 1302, 2301, 2381	6	Choose 2
Government/Political Science (Code 70)		
POSC 2305 and 2306	6	
Social and Behavioral Sciences (Code 80)		
AGBE 2317*; COMM 2377; CRIJ 1301; ECON 2301, 2302; PSYC 2301; SOCI 1301	3	Choose 1
Component Area Option (Code 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]	3	
AND		
IDS 1071[1], MATH 2412[1], or 2413[1]		
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 4320* Quantum Mechanics I	3	
PHYS 4360* Nuclear Physics	3	
PHYS 4340* Mathematical Methods	3	

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

PHYS 4197* Research in Physics	1	
PHYS 4103* Seminar in Physics	1	
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* Medical Imaging Physics	6	
PHYS 3380* Astrophysics		
PHYS 4310* Modern Physics II		
PHYS 4350* Computational Physics		
PHYS 4370* Senior Investigations		
PHYS 4330* Optics		
PHYS 4390* (NEW) Solid State Physics		
Three hours of PHYS 3095 or PHYS 4095 may also be applied toward this six-hour requirement.		
BACHELOR OF SCIENCE REQUIREMENTS Covered by requirements for major.		OPTION
ELECTIVES		
At least one hour must be advanced.		
18 HOURS BY ADVISEMENT	18	
GENERAL ELECTIVES		
ELECTIVES should be in a support field. MATH 3311 and 3321, CHEM 1411, 1412 are recommended.	7-12	
MINIMUM HRS REQUIRED TO COMPLETE DEGREE	120	

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

NOTE: At least 39 hours of advanced work (3000- or 4000-level courses) for which tuition is paid must be earned at WTAMU, and 30 of the final 36 hours counted toward the degree 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.

Note: This is NOT a degree plan. After completing 30 hours, students are encouraged to request an official degree plan in the office of the dean of the College of Agriculture, Science and Engineering, located in the Agriculture and Natural Sciences Building, Room 106 (or call 651-2585). Students who have completed 45 hours will not be allowed to progress without requesting a degree plan.



First Year					
Fall		Spring			
H o u r s 13	CORE 10-ENGL 1301	3	H o u r s 15	CORE 90-ENGL 1302 or 2311	3
	CORE 20-MATH 1314	3		CORE 20-MATH 1316 or 2412**	3
	CORE 40 See Checklist for Options	3		CORE 10-COMM 1315, 1318, or 1321	3
	CORE 60-HIST 1301, 1302, 2301, or 2381	3		CORE 60-HIST 1301, 1302, 2301, or 2381	3
	CORE 90-IDS 1071*	1		CORE 50-ARTS See Checklist for Options	3

Second Year					
Fall		Spring			
H o u r s 18	CORE 20-MATH 2413	4	H o u r s 18	CORE 20-MATH 2414	4
	CORE 90-PHYS 2425	4		CORE 90-PHYS 2426	4
	CORE 70-POSC 2305 or 2306	3		CORE 70-POSC 2305 or 2306	3
	CORE 80 See Checklist for Options	3		CS 1315 OR CS 1337	3
	DIRECTED ELEC See Checklist for Options	4		DIRECTED ELECTIVE See Checklist for Options	4

Third Year					
Fall		Spring			
H o u r s 15	MATH 3340	3	H o u r s 15	MATH 3342	3
	PHYS 3330	3		PHYS 3310	3
	PHYS 3320	3		PHYS 3350	3
	ADVISED ELEC See Checklist for Options	6		ADVISED ELEC See Checklist for Options	6

Fourth Year					
Fall		Spring			
H o u r s 13	PHYS 3340	3	H o u r s 13	PHYS 4340	3
	PHYS 4320	3		PHYS 4360	3
	PHYS 4197	1		PHYS 4103	1
	PHYS ELECTIVE See Checklist for Options	3		PHYS ELECTIVE See Checklist for Options	3
	ADVISED ELEC See Checklist for Options	3		ADVISED ELEC See Checklist for Options	3

DISCLAIMER: This curriculum guide should be used in conjunction with the corresponding degree checklist for general planning purposes only. The degree checklist (later a student's official degree plan) should be referred to as the comprehensive list of all courses required for the degree. An official degree plan is required after completing 45 hours. Students should always seek the advice of their academic adviser before scheduling classes.

Notes:
 * MATH 2412 (1) or MATH 2413 (1) can be substitute for IDS 1071 (1) if these are used to satisfy CORE 20 requirements
 ** MATH 2412 is recommended over MATH 1316 for this degree plan
 Eighteen hours of advisement based upon student career interests.