#### West Texas A&M University Advising Services Degree Checklist 2019-2020

FPC This symbol indicates courses that apply towards degree programs at WT. All core classes are offered at FPC. Please refer to the list regarding major specific courses. Course prefixes and numbers may vary at each institution. Please contact an adviser to ensure the course will apply towards chosen core area.

NAME:	WT ID:	DATE:	

# Physical Science (Grades 6-12) Certification **Chemistry and Physics**

CORE CURRICULUM COURSES: 42 HOURS +	HRS	FPC
Communication (Code 10)	-	
ENGL 1301 Introduction to Academic Writing and Argumentation	3	
COMM 1315, 1318, or 1321	3	
Mathematics (Code 20)	1	
See University Core Requirements below	(3)	
Life and Physical Sciences (Code 30)	(0)	
See University Core Requirements below  Language, Philosophy and Culture (Code 40)	(6)	
ANTH 2351, ENGL 2321*, 2326*, 2331*, 2341*, 2343*; HIST 2311, 2323, 2372; MCOM 1307; PHIL 1301, 2374; SPAN 2311*, 2312*/**, 2313*, 2315*, or 2371	3	
Creative Arts (Code 50)  ARTS 1303, ARTS 1304; DANC 2303; MUSI 1306, MUSI 1307, MUSI 1310; or THRE 1310  Choose 1	3	
American History (Code 60)	1	
HIST 1301, 1302, 2301, 2381 Choose 2	6	
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 Choose 1  Component Area Option (Code 90)	3	
See University Core Requirements below	(6)	-
A grade of "C" or better and a 2.75 GPA is required.		
UNIVERSITY CORE REQUIREMENTS: 15 HOURS •	-	
UNIVERSITY CORE REQUIREMENTS: 15 HOURS •  CORE 20  MATH 1314*, 1316*, 1324*, 2412*[3], or 2413*[3]	3	
UNIVERSITY CORE REQUIREMENTS: 15 HOURS •  CORE 20  MATH 1314*, 1316*, 1324*, 2412*[3], or 2413*[3]  CORE 30	3	
UNIVERSITY CORE REQUIREMENTS: 15 HOURS •  CORE 20 MATH 1314*, 1316*, 1324*, 2412*[3], or 2413*[3]  FPC  CORE 30 CHEM 1411*[3] Chemistry I  CORE 30 CHEM 1412*[3] Chemistry II  FPC		
UNIVERSITY CORE REQUIREMENTS: 15 HOURS •  CORE 20 MATH 1314*, 1316*, 1324*, 2412*[3], or 2413*[3]  FPC  CORE 30 CHEM 1411*[3] Chemistry I  CORE 30 CHEM 1412*[3] Chemistry II  FPC  CORE 90	3	
UNIVERSITY CORE REQUIREMENTS: 15 HOURS •  CORE 20 MATH 1314*, 1316*, 1324*, 2412*[3], or 2413*[3]  FPC  CORE 30 CHEM 1411*[3] Chemistry I  FPC  CORE 30 CHEM 1412*[3] Chemistry II  FPC  ENGL 1302* Research and Rhetoric OR  ENGL 2311* Introduction to Professional and Technical Communication  CORE 90 CHEM 1411L[1], 1412L[1]  AND	3	
UNIVERSITY CORE REQUIREMENTS: 15 HOURS •  CORE 20 MATH 1314*, 1316*, 1324*, 2412*[3], or 2413*[3]  FPC  CORE 30 CHEM 1411*[3] Chemistry I  CORE 30 CHEM 1412*[3] Chemistry II  FPC  ENGL 1302* Research and Rhetoric OR ENGL 2311* Introduction to Professional and Technical Communication  CORE 90 CHEM 1411L[1], 1412L[1] AND IDS 1071[1], MATH 2412[1], or 2413[1]  PHYSICAL SCIENCE REQUIREMENTS:58-64 HOURS	3 3 3	
UNIVERSITY CORE REQUIREMENTS: 15 HOURS •  CORE 20 MATH 1314*, 1316*, 1324*, 2412*[3], or 2413*[3]  FPC  CORE 30 CHEM 1411*[3] Chemistry I  FPC  CORE 90 ENGL 1302* Research and Rhetoric OR ENGL 2311* Introduction to Professional and Technical Communication  CORE 90 CHEM 1411L[1], 1412L[1]  AND  IDS 1071[1], MATH 2412[1], or 2413[1]  PHYSICAL SCIENCE REQUIREMENTS:58-64 HOURS (4 grade of "C" or better and a 2.75 GPA is required.")	3 3 3	
UNIVERSITY CORE REQUIREMENTS: 15 HOURS •  CORE 20 MATH 1314*, 1316*, 1324*, 2412*[3], or 2413*[3]  FPC  CORE 30 CHEM 1411*[3] Chemistry I  CORE 30 CHEM 1412*[3] Chemistry II  FPC  ENGL 1302* Research and Rhetoric OR ENGL 2311* Introduction to Professional and Technical Communication  CORE 90 CHEM 1411L[1], 1412L[1]  AND IDS 1071[1], MATH 2412[1], or 2413[1]  PHYSICAL SCIENCE REQUIREMENTS:58-64 HOURS (A grade of "C" or better and a 2.75 GPA is required.^)  CHEM 2423*, 2423L Organic Chemistry I  FPC	3 3 3 3	
UNIVERSITY CORE REQUIREMENTS: 15 HOURS •  CORE 20 MATH 1314*, 1316*, 1324*, 2412*[3], or 2413*[3]  FPC  CORE 30 CHEM 1411*[3] Chemistry I  FPC  CORE 30 CHEM 1412*[3] Chemistry II  FPC  ENGL 1302* Research and Rhetoric OR ENGL 2311* Introduction to Professional and Technical Communication  CORE 90 CHEM 1411L[1], 1412L[1]  AND  IDS 1071[1], MATH 2412[1], or 2413[1]  PHYSICAL SCIENCE REQUIREMENTS:58-64 HOURS (A grade of "C" or better and a 2.75 GPA is required.*)  CHEM 2423*, 2423L Organic Chemistry I  FPC  CHEM 2425*, 2425L Organic Chemistry I  FPC	3 3 3 3	
UNIVERSITY CORE REQUIREMENTS: 15 HOURS •  CORE 20 MATH 1314*, 1316*, 1324*, 2412*[3], or 2413*[3]  FPC  CORE 30 CHEM 1411*[3] Chemistry I  FPC  CORE 30 CHEM 1412*[3] Chemistry II  FPC  ENGL 1302* Research and Rhetoric OR ENGL 2311* Introduction to Professional and Technical Communication  CORE 90 CHEM 1411L[1], 1412L[1]  AND  IDS 1071[1], MATH 2412[1], or 2413[1]  PHYSICAL SCIENCE REQUIREMENTS:58-64 HOURS (A grade of "C" or better and a 2.75 GPA is required.*)  CHEM 2423*, 2423L Organic Chemistry I  CHEM 2425*, 2425L Organic Chemistry I  CHEM 3511*, 3511L Analytical Chemistry  Take three courses from:  CHEM 3421*, 3421L Physical Chemistry II  CHEM 3422*, 3422L Physical Chemistry II  CHEM 3421*, 3421L Physical Chemistry II  CHEM 3421*, 3421L Physical Chemistry II  CHEM 3421*, 3421L Physical Chemistry II  CHEM 4411*, 4411L Instrumental Analysis	3 3 3 3 4 4 4 5	
UNIVERSITY CORE REQUIREMENTS: 15 HOURS •  CORE 20 MATH 1314*, 1316*, 1324*, 2412*[3], or 2413*[3]  FPC  CORE 30 CHEM 1411*[3] Chemistry I  CORE 30 CHEM 1412*[3] Chemistry II  FPC  ENGL 1302* Research and Rhetoric OR ENGL 2311* Introduction to Professional and Technical Communication  CORE 90 CHEM 1411L[1], 1412L[1] AND IDS 1071[1], MATH 2412[1], or 2413[1]  PHYSICAL SCIENCE REQUIREMENTS:58-64 HOURS (A grade of "C" or better and a 2.75 GPA is required.*)  CHEM 2423*, 2423L Organic Chemistry I  CHEM 3511*, 3511L Analytical Chemistry  Take three courses from: CHEM 3421*, 3421L Physical Chemistry I  CHEM 3422*, 3422L Physical Chemistry II  CHEM 4411*, 4411L Instrumental Analysis CHEM 4323* and 4223L Biochemistry I/ Biochemistry I  Laboratory	3 3 3 3	
UNIVERSITY CORE REQUIREMENTS: 15 HOURS •  CORE 20 MATH 1314*, 1316*, 1324*, 2412*[3], or 2413*[3]  FPC  CORE 30 CHEM 1411*[3] Chemistry I  CORE 30 CHEM 1412*[3] Chemistry II  FPC  ENGL 1302* Research and Rhetoric OR ENGL 2311* Introduction to Professional and Technical Communication  CORE 90 CHEM 1411L[1], 1412L[1]  AND IDS 1071[1], MATH 2412[1], or 2413[1]  PHYSICAL SCIENCE REQUIREMENTS:58-64 HOURS (A grade of "C" or better and a 2.75 GPA is required.^)  CHEM 2423*, 2423L Organic Chemistry I  CHEM 2425*, 2425L Organic Chemistry I  FPC  CHEM 3511*, 3511L Analytical Chemistry  Take three courses from: CHEM 3421*, 3421L Physical Chemistry I  CHEM 3422*, 3422L Physical Chemistry II  CHEM 4411*, 4411L Instrumental Analysis CHEM 4323* and 4223L Biochemistry II/ Biochemistry I  Laboratory CHEM 4324* and 4224L Biochemistry II/ Biochemistry II	3 3 3 3 4 4 5	

### **Bachelor of Science Degree Major: Chemistry**

BS.8-12.PHYS.SCI.EDS (499) - TEXES Ex	xams	s: 16	0, 237
MATH 1316* Plane Trigonometry <b>OR</b> MATH 2412* Pre-Calculus (if not taken to satisfy Core 20)	FPC	0-4	
MATH 2413* Calculus I	FPC	4	
MATH 2414* Calculus II	FPC	4	
PHYS 1411, 1411L Introduction to Astronomy I	FPC	4	
PHYS 2425*, 2425L Calculus Physics I	FPC	4	
PHYS 2426*, 2426L Calculus Physics II	FPC	4	
PHYS 3310* Modern Physics		3	
PHYS 3330* Mechanics I		3	
PHYS 4321* Principles of Physical Science		3	
EDUCATION REQUIREMENTS: 27 HOURS (A grade of "C" or better and a 2.75 GPA is required.^)			
EDPD 3340* Educational Foundations	FPC	3	
EDPD 4340* Classroom Management		3	
EDRD 4386* Secondary Reading in Content Area		3	
EDSE 4320* Teaching in Secondary Schools		3	
EDSE 4330* Teaching in Secondary Schools II		3	
EDSE 4340* Student Teaching—Secondary		3	
EDSE 4341* Student Teaching—Secondary		3	
EPSY 3341* Educational Psychology		3	
EPSY 3350 Children with Special Needs	FPC	3	
TOTAL HOURS REQUIRED TO COMPLETE DEGR	EE	127	-133

<sup>◆</sup> 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 120hour 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.

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 required to request an official degree plan by using the online Degree Plan Request form. Students who have questions about their degree plan should contact the office of the dean of the Paul Engler College of Agriculture and Natural Sciences, which is located in the Happy State Bank Academic & Research Building, Suite 262 (phone 806-651-3570). Students who have completed 30 hours will not be allowed to progress without requesting a degree plan.

<sup>\*</sup> Indicates prerequisites—see catalog for more information.

<sup>\*\*</sup> Or an equivalent course (second year, second semester) in a foreign language.

<sup>^</sup>Transfer & WT GPA combined must be 2.75.

## Physical Science (Grades 6-12) Certification



Chemistry and Physics
Advising Services Bachelor of Science Degree
BS.8-12.PHYS.SCI.EDS

301 26th 651-2940 Degree Plan Total Hours: 130 Major Code: 499

First Ye	First Year							
	Fall			Spring				
	CORE 10-ENGL 1301	3	l	CORE 90-ENGL	3			
Н			Н	1302 or 2311				
o u	CORE 20-MATH 1314	3	0 u	MATH 2412	4			
r			r					
S	CHEM 1411/1411L	4	s	CHEM 1412/1412L	4			
17	CORE 60-HIST	3	17	CORE 60-HIST	3			
17			1/	1301, 1302, 2301 or 2381				
	CORE 90-IDS 1071*	1		CORE 10-COMM	3			
				1315, 1318 or 1321				
	GEOG/GESC 3313	3						

Second	Second Year							
	Fall			Spring				
Н	MATH 2413	4	Н	MATH 2414	4			
o u r	PHYS 2425/2425L	4	o u r	PHYS 2426/2426L	4			
S	CHEM 2423/2423L	4	s	CHEM 2425/2425L	4			
15	CORE 70-POSC 2305 or 2306	3	15	CORE 70-POSC 2305 or 2306	3			

Third Y	Third Year						
	Fall			Spring			
н	CHEM 3511/3511L	5	н	PHYS 3310	3		
0			0				
u	CHEM ELECTIVE	4	u	CHEM ELECTIVE	4		
r	See checklist for options		r	See checklist for options			
S	PHYS 1411/1411L	4	s	CORE 50	3		
				See checklist for options			
16	EDPD 3340	3	16	PHYS 3330	3		
10			10				
				EPSY 3341	3		

Fourth Year						
Fall			Spring			
H See checklist for options	3	Н	PHYS 4321	3		
o u r	CORE 80 See checklist for options	3	o u r	EDSE 4330	3	
S	CHEM ELECTIVE	4	S	EDSE 4341	3	
16	EDSE 4340	3	18	EPSY 3350	3	
	EDSE 4320	3		EDRD 4386	3	
				EDPD 4340	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 30 hours. Students should always seek the advice of their academic adviser before scheduling classes.

#### Notes:

\* Fourth hour from MATH 2412 or MATH 2413 can be substituted for IDS 1071.