**West Texas A&M University**
**Advising Services**
**Degree Checklist**
**2021-2022**
**(For assistance completing this form, contact Advising Services at 806-651-5300)**

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

## Physical Science (Grades 6-12) Certification
## Chemistry and Physics
## Chemistry and Physics Bldg. (301 26th St.) (806)651-2940

## Bachelor of Science Degree
## Major: Chemistry
## BS.8-12.PHYS.SCI.EDS (499) – TExES Exams: 160, 237

| 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)** | | |
| 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; MCOM 1307; PHIL 1301, 2374; SPAN 2311*, 2312*/**, 2313*, 2315*, or 2371 **Choose 1** | 3 | |
| **Creative Arts (Code 50)** | | |
| ARTS 1301, 1303, 1304; DANC 2303; MUSI 1306, 1307 (for music majors), 1310; or THRE 1310 **Choose 1** | 3 | |
| **American History (Code 60)** | | |
| HIST 1301, 1302, 2301, 2381, 2382 **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** | 3 | |
| **Component Area Option (Code 90)** | | |
| See **University Core Requirements** below | (6) | |
| **PHYSICAL SCIENCE (GRADES 6-12) CERTIFICATION REQUIREMENTS: 73-79 HOURS**<br>**A grade of "C" or better and a 2.75 GPA is required.^** | | |
| **UNIVERSITY CORE REQUIREMENTS: 15 HOURS ♦** | | |
| **CORE 20**<br>MATH 1314*, 1316*, 1324*, 2412*[3], or 2413*[3] FPC | 3 | |
| **CORE 30**<br>CHEM 1411*[3] Chemistry I FPC | 3 | |
| **CORE 30**<br>CHEM 1412*[3] Chemistry II FPC | 3 | |
| **CORE 90**<br>ENGL 1302* Research and Rhetoric **OR**<br>ENGL 2311* Introduction to Professional and Technical Communication FPC | 3 | |
| **CORE 90**<br>CHEM 1411L[1], 1412L[1]<br>**AND**<br>IDS 1071[1], MATH 2412[1], or 2413[1] | 3 | |
| **PHYSICAL SCIENCE REQUIREMENTS:58-64 HOURS**<br>**(A grade of "C" or better and a 2.75 GPA is required.^)** | | |
| CHEM 2423*, 2423L Organic Chemistry I FPC | 4 | |
| CHEM 2425*, 2425L Organic Chemistry II FPC | 4 | |
| CHEM 3511*, 3511L Analytical Chemistry | 5 | |
| **Take three courses from:**<br>CHEM 3421*, 3421L Physical Chemistry I<br>CHEM 3422*, 3422L Physical Chemistry II<br>CHEM 4411*, 4411L Instrumental Analysis<br>CHEM 4323* **and** 4223L Biochemistry I/ Biochemistry I Laboratory<br>CHEM 4324* **and** 4224L Biochemistry II/ Biochemistry II Laboratory<br>CHEM 4431* *(431)* Inorganic Chemistry | 12-14 | |
| GEOG/GESC 3313 Meteorology | 3 | |
| MATH 1316* Plane Trigonometry **OR**<br>MATH 2412* Pre-Calculus FPC<br>**(if not taken to satisfy Core 20)** | 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**<br>**(A grade of "C" or better and a 2.75 GPA is required.^)** | | |
| EPSY 4341* Educator Readiness and Performance | 3 | |
| EDPD 4340* Classroom Management | 3 | |
| EDRD 4386* Secondary Reading in Content Area | 3 | |
| EDPD 4330* Educational Methodology and Diverse Learners | 3 | |
| EDPD 4348* Data-Informed Instruction and Assessment | 3 | |
| EDPD 4398* Clinical Teaching –ALL | 3 | |
| EDSE 4341* Clinical Teaching—Secondary | 3 | |
| EPSY 3341* Educational Psychology | 3 | |
| EPSY 3350 Children with Special Needs FPC | 3 | |
| **TOTAL HOURS REQUIRED TO COMPLETE DEGREE** | **127-133** | |

♦ 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 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.
**^Transfer & WT GPA combined must be 2.75.**

**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
## 2021-2021 Curriculum Guide

**Major:** Physical Science 6-12 Cert.; Chemistry, B.S. **Major Code:** 499

### First Year

| Fall | | Spring | |
|---|---|---|---|
| CORE 10 - ENGL 1301 | 3 | **CORE 90 - ENGL 1302 or 2311** (required for major) | 3 |
| **CORE 20 - MATH 1314** | 3 | **MATH 2412** | 4 |
| **CORE 30(1) - CHEM 1411/1411L** -4th (lab) hour counts towards Core 90. | 4 | **CORE 30(2) - CHEM 1412/1412L** -4th (lab) hour counts towards Core 90. | 4 |
| CORE - See checklist for options (see also Note 1 below) | 3 | CORE - See checklist for options (see also Note 1 below) | 3 |
| **CORE 90 - See checklist or Note 2** | 1 | CORE - See checklist for options (see also Note 1 below) | 3 |
| **PHYS 1411/1411L** | 4 | | |
| Semester Hours | 18 | Semester Hours | 15 |

### Second Year

| Fall | | Spring | |
|---|---|---|---|
| **MATH 2413** | 4 | **MATH 2414** | 4 |
| **PHYS 2425/2425L** | 4 | **PHYS 2426/2426L** | 4 |
| **CHEM 2423/2423L** | 4 | **CHEM 2425/2425L** | 4 |
| CORE - See checklist for options (see also Note 1 below) | 3 | CORE - See checklist for options (see also Note 1 below) | 3 |
| | | | |
| | | | |
| Semester Hours | 15 | Semester Hours | 15CH |

### Third Year

| Fall | | Spring | |
|---|---|---|---|
| **CHEM 3511/3511L** | 5 | **PHYS 3310** | 3 |
| **Chemistry Elective(1)** -See checklist or Note 3 for options. | 4 | **Chemistry Elective(2)** -See checklist or Note 3 for options. | 4 |
| **GEOG/GESC 3313** | 3 | **PHYS 3330** | 3 |
| EPSY 4341 | 3 | **EPSY 3341** | 3 |
| | | CORE - See checklist for options (see also Note 1 below) | 3 |
| | | | |
| Semester Hours | 15 | Semester Hours | 16 |

### Fourth Year

| Fall | | Spring | |
|---|---|---|---|
| **Chemistry Elective(3)** See checklist or Note 3 for options. | 4 | **PHYS 4321** | 3 |
| **EDPD 4330** | 3 | **EDPD 4348** | 3 |
| **EDPD 4398** | 3 | **EDSE 4341** | 3 |
| CORE - See checklist for options (see also Note 1 below) | 3 | **EPSY 3350** | 3 |
| CORE - See checklist for options (see also Note 1 below) | 3 | **EDRD 4386** | 3 |
| | | **EDPD 4340** | 3 |
| Semester Hours | 16 | Semester Hours | 18 |

## Degree Total Hours 120

**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.**

### Identified Marketable Skills:

### Top 3 Local Employers or Industries/Professional Programs/Possible Career Opportunities

### Prerequisites/Important Sequences/Other degree Notes:

**Note 1 - CORE:** Chemistry 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)
**Note 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.
**Note 3 - Chemistry Electives:** Take three courses from CHEM 3421, 3422, 4411, 4323 **and** 4223L, 4324 **and** 4224L, 4431.