

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

(For assistance completing this form, contact Advising Services at 806-651-5300)

NAME: _____ WT ID: _____ DATE: _____

Chemistry Option III—Biochemistry
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 Choose 1 | 3 | |
| 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 Choose 1 | 3 | |
| American History (60) | | |
| HIST 1301, 1302, 2301, 2381 Choose 2 | 6 | |
| Government/Political Science (Code 70) | | |
| POSC 2305 and 2306 | 6 | |
| Social and Behavioral Sciences (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) | |
| CHEMISTRY—OPTION III (BIOCHEMISTRY) MAJOR REQUIREMENTS: 78-83 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 CHEM 1411*[3] Chemistry I | 3 | |
| CORE 30 CHEM 1412*[3] Chemistry II | 3 | |
| CORE 90 ENGL 1302* or 2311* | 3 | |
| CORE 90 CHEM 1411L[1], 1412L[1] AND IDS 1071[1], MATH 2412[1], or 2413[1] | 3 | |
| BIOCHEMISTRY REQUIREMENTS: 63-68 HOURS | | |
| CHEM 2523*, 2523L Organic Chemistry I | 5 | |
| CHEM 2525*, 2525L Organic Chemistry II | 5 | |
| CHEM 3511*, 3511L Analytical Chemistry | 5 | |
| CHEM 4323*, 4223L Biochemistry I/Biochemistry I Laboratory | 5 | |
| CHEM 4324*, 4224L Biochemistry II/Biochemistry II Laboratory | 5 | |
| BIOL 1406, 1406L AND BIOL 1407*, 1407L OR BIOL 1411, 1411L AND BIOL 1413, 1413L | 8 | |
| BIOL 2572*, 2572L Microbiology | 5 | |

**Bachelor of Science Degree
BS.BIOCHEM (104)**

| | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--|
| BIOL 3301 Genetics | 3 | |
| BIOL 3402*, 3402L Cell Biology | 4 | |
| ADVANCED BIOLOGY ELECTIVE - BIOL 3440 or 4375 is recommended. - Taking both BIOL 2401 and BIOL 2402 may also be used to satisfy this requirement. | 3-4 | |
| MATH 1316* Plane Trigonometry OR MATH 2412* Pre-Calculus (if not taken to satisfy Core 20) | 0-4 | |
| MATH 2413* Calculus I | 4 | |
| PHYS 1401*, 1401L General Physics I AND PHYS 1402*, 1402L General Physics II OR PHYS 2425*, 2425L Calculus Physics I AND PHYS 2426*, 2426L Calculus Physics II | 8 | |
| CHEM 4370* (MPS 4370) Senior Investigations OR MPS 4393* Math/Physical Science/Engineering Technology Honors | 3 | |
| ADVANCED ELECTIVES: 10-11 HOURS—SEE NOTE II | | |
| ADVANCED ELECTIVES Selected from chemistry, mathematics, biology, computer science, physics, environmental science or geology to provide a minimum of 39 advanced (3000- or 4000-level) hours. - CHEM 4333 is strongly recommended. | 10-11 | |
| ELECTIVES: 0-4 HOURS BY ADVISEMENT * | | |
| ELECTIVES | 0-4 | |
| BACHELOR OF SCIENCE REQUIREMENTS Covered by requirements for major. | | |
| MINIMUM HOURS 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 I: Option III is for students planning careers using chemistry applied to medical science, including pre-medical students and other pre-professional students.

NOTE II: 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 (REL) 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 15 | CORE 10-ENGL 1301 | 3 | H o u r s 15 | CORE 90-ENGL 1302 or 2311 | 3 |
| | CORE 20-MATH 1316 or 2412* | 3 | | MATH 2413 | 4 |
| | BIOL 1406/1406L or 1411/1411L | 4 | | BIOL 1407/1407L or 1413/1413L | 4 |
| | CHEM 1411/1411L | 4 | | CHEM 1412/1412L | 4 |
| | CORE 90-IDS 1071** | 1 | | | |
| | | | | | |

| Second Year | | | | | |
|---------------------------------|------------------------------------------|---|---------------------------------|------------------------------------------|---|
| Fall | | | Spring | | |
| H o u r s 16 | CHEM 2523/2523L | 5 | H o u r s 14 | CHEM 2525/2525L | 5 |
| | CORE 90-COMM 1315, 1318 or 1321 | 3 | | BIOL 3301 | 3 |
| | BIOL 2572/2572L | 5 | | CORE 60-HIST 1301, 1302, 2301 or 2381 | 3 |
| | CORE 60-HIST 1301, 1302, 2301 or 2381 | 3 | | CORE 40 See Checklist for Options | 3 |
| | | | | | |

| Third Year | | | | | |
|---------------------------------|-------------------------------------------|---|---------------------------------|---------------------------------------------|---|
| Fall | | | Spring | | |
| H o u r s 17 | CHEM 3511/3511L | 5 | H o u r s 17 | ADV ELECTIVE | 3 |
| | BIOL 3402/3402L | 4 | | ADV BIOL ELECTIVE May be a 3-hour course | 4 |
| | PHYS 1401/1401L or 2425/2425L | 4 | | PHYS 1402/1402L or 2426/2426L | 4 |
| | ADV ELECTIVE See Checklist for Options | 4 | | CORE 50 See Checklist for Options | 3 |
| | | | | CORE 80 See Checklist for Options | 3 |
| | | | | | |

| Fourth Year | | | | | |
|---------------------------------|------------------------------|---|---------------------------------|------------------------------|---|
| Fall | | | Spring | | |
| H o u r s 15 | CHEM 4323/4223L | 5 | H o u r s 11 | CHEM 4324/4224L | 5 |
| | ADV ELECTIVE | 4 | | CORE 70-HIST 2305 or 2306 | 3 |
| | CORE 70-POSC 2305 or 2306 | 3 | | CHEM OR MPS 4370 or 4393 | 3 |
| | ELECTIVE | 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: This option is for students planning careers using chemistry applied to medical science, including pre-medical students and other pre-professional students.

* MATH 2412 is recommended over MATH 1316 for this degree plan.

** MATH 2412 (1) or MATH 2413 (1) can substitute for IDS 1071 (1) if these are used to satisfy CORE 20 requirements.

ADVANCED ELECTIVES must be selected from: chemistry, mathematics, biology, computer science, physics, environmental science or geology.

BIOL 3440/4375 is currently offered during the summer semester only. BIOL 2401 plus 2402 may substitute for this requirement.