

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

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

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

**Computer Science—Mechanical Engineering Track
Engineering and Computer Science
ECS Building, Room 119 651-5257**

| 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 (20) | | |
| See University Core Requirements below | (3) | |
| Life and Physical Sciences (30) | | |
| See University Core Requirements below | (6) | |
| Language, Philosophy and Culture (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 (50) | | |
| ARTS 1303, ARTS 1304; DANC 2303; MUSI 1306, MUSI 1307, MUSI 1310; or THRE 1310 Choose 1 | 3 | |
| American History (60) | | |
| HIST 1301, 1302, 2301, 2381 Choose 2 | 6 | |
| Government/Political Science (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 (90) | | |
| See University Core Requirements below | (6) | |
| COMPUTER SCIENCE—MECHANICAL ENGINEERING TRACK | | |
| MAJOR REQUIREMENTS: 94 HOURS | | |
| <ul style="list-style-type: none"> • A grade of "C" or better must be earned in all courses required for major. • A grade of "C" or better is mandatory for all prerequisites listed for ECS courses required for Computer Science majors. | | |
| UNIVERSITY CORE REQUIREMENTS: 15 HOURS ♦ | | |
| CORE 20 | | |
| MATH 2413*[3] Calculus I | 3 | |
| CORE 30 | | |
| PHYS 2425*[3] and 2426*[3] | 6 | |
| CORE 90 | | |
| MATH 2413[1], PHYS 2425L[1], and 2426L[1] | 3 | |
| CORE 90 | | |
| ENGL 2311* Introduction to Professional and Technical Communication | 3 | |
| MAJOR REQUIREMENTS: 45 HOURS | | |
| CS 1301 Introduction to Computer Science | 3 | |
| CS 1337, 1337L Introduction to Object-Oriented Programming | 3 | |
| CS 2325*, 2325L Computer Organization and Assembly Language | 3 | |
| CS 2336*, 2336L Objects and Data Abstraction | 3 | |
| CS 3305* Data Structures and Algorithms | 3 | |
| CS 3307* Algorithm Design and Analysis | 3 | |
| CS 3310* Programming Languages | 3 | |
| CS 3315* Scripting Languages | 3 | |
| CS 3352* Operating Systems and Networking | 3 | |

**Bachelor of Science Degree
BS.CS.MENG (307)**

| | | |
|---|------------|--|
| CS 3372* Net-Centric Computing | 3 | |
| CS 4325* Computer Architecture | 3 | |
| CS 4340* Database Systems Use, Design and Implementation | 3 | |
| CS 4385* Concurrency and Distributed Systems | 3 | |
| CS 4390* Software Development & Systems Prog. | 3 | |
| CS 4391* Software Development & Prof. Practice | 3 | |
| REQUIRED MATH COURSES: 16 HOURS | | |
| MATH 2321* Discrete Structures I | 3 | |
| MATH 2322* Discrete Structures II | 3 | |
| MATH 2414* Calculus II | 4 | |
| MATH 3340* Calculus III | 3 | |
| MATH 3342* Differential Equations I | 3 | |
| ADDITIONAL REQUIREMENTS FOR MECHANICAL ENGINEERING TRACK: 18 HOURS | | |
| ENGR 1304* Engineering Graphics OR ENGR 2332* Mechanics of Materials I <i>Choice depends upon choice of advanced MENG courses.</i> | 3 | |
| ENGR 2301* Engineering Statics | 3 | |
| ENGR 2302* Engineering Dynamics | 3 | |
| ADVANCED MENG COURSE | 3 | |
| ADVANCED MENG COURSE | 3 | |
| ADVANCED MENG COURSES | 3 | |
| TOTAL HOURS REQUIRED TO COMPLETE DEGREE | 121 | |

♦ 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.

** Recommended.

*** 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 by using the online [Degree Plan Request](#) form. The dean's office of the School of Engineering, Computer Science and Mathematics, located in the Engineering and Computer Science Building, Room 119 (or call 806-651-5257), can answer questions about the degree plan. Students who have completed 45 hours will not be allowed to progress without requesting a degree plan.