

**West Texas A&M University
Advising Services
Degree Checklist
2012-2013**

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

NAME: _____ WT ID: _____ DATE: _____

**Mechanical Engineering
Department of Engineering and Computer Science
ECS Building, Room 119 651-5257**

| CORE CURRICULUM COURSES: 42 HOURS ♦ | | HRS | |
|---|-----|------------|--|
| Communication (10) | | | |
| ENGL 1301 (ENG 101) Composition and Reading | 3 | | |
| See University Core Requirements below | (3) | | |
| Communication (11) | | | |
| COMM 1315 (SCOM 101, 1315) or 1321 (SCOM 201, 1321) | 3 | | |
| Mathematics (20) | | | |
| See University Core Requirements below | (4) | | |
| Natural Sciences (30) | | | |
| See University Core Requirements below | (8) | | |
| Humanities (40-41) | | | |
| ENGL 2321*, 2326*, 2331*, 2341*, 2343*; HIST 2311 (110), 2323, 2372 (210); MCOM 1307 (MC 107); PHIL 1301 (101), 2374 (204); SPAN 2312**/ (207) or SPAN 2315**/ Choose 1 | 3 | | |
| Visual and Performing Arts (50) | | | |
| HUMA 1315 (FA 101); ARTS 1303 (ART 151), ARTS 1304 (ART 152); DANC 2303; MUSI 1306 (MUS 101) or 1208 and 1209*; or THRE 1310 (105) Choose 1 | 3 | | |
| Social and Behavioral Sciences (60) | | | |
| HIST 1301 (201) or 1303; 1302 (202) or 1304; 2301; 2381 Choose 2 | 6 | | |
| Social and Behavioral Sciences (70) | | | |
| POSC 2305 (101) or 2370; 2306 (102) | 6 | | |
| Social and Behavioral Sciences (80) | | | |
| AGBE 2317* (213); ANTH 2351 (201); CRIJ 1301 (CJ 105); ECON 2301 (ECO 201), 2302 (ECO 202), 2371; GEOG 1302 (202); PSYC 2301 (PSY 201); COMM 2377 (SCOM 255, 2377); SOCI 1301 (201); or SOCW 2361 (SOWK 201) Choose 1 | 3 | | |
| Institutionally Designated Option (90) | | | |
| ANSC 2370; CIDM 1105, 1301 (CIS, IDM 1301), 1315 (CIS, IDM 1315), 2345; CS 1301; IDS 1071; PHIL 2303 (203) Choose 1 | 1-3 | | |
| MECHANICAL ENGINEERING MAJOR REQUIREMENTS: 95 HOURS | | | |
| A grade of "C" or better must be earned in all courses required for major. | | | |
| UNIVERSITY CORE REQUIREMENTS: 15 HOURS | | | |
| CORE 10 2311* (ENG 270) Introduction to Professional and Technical Communication | 3 | | |
| CORE 20 MATH 2413* (240) Calculus I | 4 | | |
| CORE 30 PHYS 2425* (210), 2425L (210L) Calculus Physics I AND PHYS 2426* (211), 2426L (211L) Calculus Physics II | 8 | | |
| REQUIREMENTS: 80 HOURS | | | |
| ENGR 1171 (MENG 2360) Engineering Ethics | 1 | | |
| ENGR 1301*, 1301L (ENGR 101, 1201) Fundamentals of Engineering | 3 | | |
| ENGR 1304 (125), 1304L (125L) Engineering Graphics | 3 | | |
| ENGR 1375 (115), 1375L (115L) Principles of DC and AC Circuits | 3 | | |
| ENGR 2301* (230) Engineering Statics | 3 | | |
| ENGR 2302* (240) Engineering Dynamics | 3 | | |

**Bachelor of Science Degree
BS.MECH.ENGR (129)**

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|--|----------------|--|--|
| ENGR 2332* Mechanics of Materials I | 3 | | |
| ENGR 3202* (302) Fundamentals of Engineering Econ. | 2 | | |
| ENGR 3305*, 3305L Modern Engineering Tools | 3 | | |
| MENG 3320* Engineering Thermodynamics | 3 | | |
| MENG 3350* Mechanics of Materials II | 3 | | |
| MENG 4304* (404) Fundamentals of Fluid Mechanics | 3 | | |
| MENG 4350* Machine Design | 3 | | |
| MENG 4352* (420) Thermal-Fluid Systems Design | 3 | | |
| MENG 4360* (460) Heat Transfer | 3 | | |
| MENG 4380* (480) Mechanical Engineering Design | 3 | | |
| CHEM 1411* (101), 1411L (101L) Chemistry I | 4 | | |
| CS 1315* Programming Fundamentals | 3 | | |
| ET 2371* (201), 2371L (201L) Materials and Fabrication/Metals and Ceramics | 3 | | |
| MATH 2414* (241) Calculus II | 4 | | |
| MATH 3340* (340) Calculus III | 3 | | |
| MATH 3342* (342) Differential Equations I | 3 | | |
| MENG ELECTIVE | 3 | | |
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| Take two courses from: MATH 3311* (411) Linear Algebra MATH 3343* Differential Equations II MATH 4340* (440) Complex Variables I MATH 4341* (441) Advanced Calculus MATH 4361* (461) Engineering Statistics MATH 4362* (492) Introduction to Numerical Analysis PHYS 3310* (310) Modern Physics I PHYS 4310* (410) Modern Physics II PHYS 4330* (430) Optics | 6 | | |
| CS, ENGR, ET, CENG OR MENG ELECTIVE | 3 | | |
| TOTAL HOURS REQUIRED TO COMPLETE DEGREE | 123-125 | | |

♦ A minimum of 42 hours from the core curriculum is required. Some majors specify particular courses to meet core-curriculum requirements when options are available. Ideally, these courses should be taken during the first two years of enrollment.

* Indicates prerequisites—see catalog for more information.

** Or an equivalent course (second year, second semester) in French or German.

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 39 hours must be the final hours counted toward a degree. A maximum of six semester hours in religion and six semester hours in physical education (PHED) courses can count toward a baccalaureate degree.

Note: This is NOT a degree plan. Before completion of 60 hours, students are allowed and 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). After completing 60 hours, students will not be allowed to progress without requesting a degree plan.