West Texas A&M University Advising Services Degree Checklist 2014-2015

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

| NAME: | WT ID: | DATE: |
|-------|--------|-------|
|-------|--------|-------|

Engineering Technology Option I—Renewable Energy Technology, Manufacturing/Industrial School of Engineering and Computer Science ECS Building, Room 119 651-5257

| ECS Building, Room 119 651-5257 | | |
|---|------------------|----------|
| CORE CURRICULUM COURSES: 42 HOURS ◆ | HRS | |
| Communication (Code 10) | | |
| ENGL 1301 (ENG 101) Introduction to Academic Writing and Argumentation | 3 | |
| COMM 1315 (SCOM 101, 1315), 1318 (SCOM 103, 1318), or 1321 (SCOM 201, 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 (201), ENGL 2321*, 2326*, 2331*, 2341*, 2343*; HIST 2311 (110), 2323, 2372 (210); PHIL 1301 (101), 2374 (204); SPAN 2311* (206), 2312*/** (207), 2313* or SPAN 2315*/** Choose 1 | 3 | |
| Creative Arts (Code 50) | | |
| HUMA 1315 (FA 101); ARTS 1303 (ART 151), ARTS 1304 (ART 152); DANC 2303; MUSI 1306 (MUS 101) or 1208 and 1209* (extra MUSI hour moves to Code 90); Or THRE 1310 (105) Choose 1 American History (Code 60) | 3 | |
| | _ | |
| HIST 1301 (201), 1302 (202), 2301, 2381 Choose 2 | 6 | <u> </u> |
| Government/Political Science (Code 70) | | |
| POSC 2305 (101) and 2306 (102) | 6 | |
| Social and Behavioral Sciences (Code 80) AGBE 2317* (213); COMM 2377 (SCOM 255, 2377); CRIJ 1301 (CJ 105); ECON 2301 (ECO 201), 2302 (ECO 202); PSYC 2301 (PSY 201); SOCI 1301 (201) Choose 1 | 3 | |
| Institutionally Designated Option (Code 90) | | |
| See University Core Requirements below | (C) | |
| ENGINEERING TECHNOLOGY OPTION IINDUSTRIAL/ | (6) | |
| MANUFACTURING MAJOR REQUIREMENTS: 91 HOURS A grade of "C" or better must be earned in all courses required for | | |
| MANUFACTURING MAJOR REQUIREMENTS: 91 HOURS A grade of "C" or better must be earned in all courses required for UNIVERSITY CORE REQUIREMENTS: 15 HOURS • | | |
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| MANUFACTURING MAJOR REQUIREMENTS: 91 HOURS A grade of "C" or better must be earned in all courses required for UNIVERSITY CORE REQUIREMENTS: 15 HOURS CORE 20 MATH 1316* (111) Plane Trigonometry OR | major | |
| MANUFACTURING MAJOR REQUIREMENTS: 91 HOURS A grade of "C" or better must be earned in all courses required for a core 20 WINIVERSITY CORE REQUIREMENTS: 15 HOURS ◆ CORE 20 MATH 1316* (111) Plane Trigonometry OR MATH 2412*[3] Pre-Calculus CORE 30 PHYS 1401*[3] (101) General Physics I AND PHYS 1402*[3] (102) General Physics II OR PHYS 2425*[3] (210) Calculus Physics I AND | major 3 | |
| MANUFACTURING MAJOR REQUIREMENTS: 91 HOURS A grade of "C" or better must be earned in all courses required for a core 20 UNIVERSITY CORE REQUIREMENTS: 15 HOURS ◆ CORE 20 MATH 1316* (111) Plane Trigonometry OR MATH 2412*[3] Pre-Calculus CORE 30 PHYS 1401*[3] (101) General Physics I AND PHYS 1402*[3] (102) General Physics II OR PHYS 2425*[3] (210) Calculus Physics I AND PHYS 2426*[3] (211) Calculus Physics II CORE 90 ENGL 2311* (ENG 270) Introduction to Professional and | 3 | |
| MANUFACTURING MAJOR REQUIREMENTS: 91 HOURS A grade of "C" or better must be earned in all courses required for I UNIVERSITY CORE REQUIREMENTS: 15 HOURS ♦ CORE 20 MATH 1316* (111) Plane Trigonometry OR MATH 2412*[3] Pre-Calculus CORE 30 PHYS 1401*[3] (101) General Physics I AND PHYS 1402*[3] (102) General Physics II OR PHYS 2425*[3] (210) Calculus Physics I AND PHYS 2426*[3] (211) Calculus Physics II CORE 90 ENGL 2311* (ENG 270) Introduction to Professional and Technical Communication CORE 90 PHYS 1401L[1] and 1402L[1] OR PHYS 1425L[1] and | 3 6 3 3 | |
| MANUFACTURING MAJOR REQUIREMENTS: 91 HOURS A grade of "C" or better must be earned in all courses required for the state of the state | 3 6 3 3 | |
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| MANUFACTURING MAJOR REQUIREMENTS: 91 HOURS A grade of "C" or better must be earned in all courses required for a core 20 MATH 1316* (111) Plane Trigonometry OR MATH 2412*[3] Pre-Calculus CORE 30 PHYS 1401*[3] (101) General Physics I AND PHYS 1402*[3] (102) General Physics II OR PHYS 2425*[3] (210) Calculus Physics I AND PHYS 2426*[3] (211) Calculus Physics II CORE 90 ENGL 2311* (ENG 270) Introduction to Professional and Technical Communication CORE 90 PHYS 1401L[1] and 1402L[1] OR PHYS 1425L[1] and 1426L[1]; MATH 2412[1] or IDS 1071 RENEWABLE ENERGY TECHNOLOGY MANUFACTURING/INDUSTRIAL REQUIREMENTS: 64 HOU! ENGR 1171 (MENG 2360) Engineering Ethics ENGR 1301*,1301L (ENGR 101, 1201) Fundamentals of | 3 6 3 RS 1 | |
| MANUFACTURING MAJOR REQUIREMENTS: 91 HOURS A grade of "C" or better must be earned in all courses required for a core of the course of the c | 3 6 3 3 RS 1 3 | |

Bachelor of Science Degree BS.ENGR.TECH (112)

| ENGR 2302* (240) Engineering Dynamics | 3 | | | | | |
|---|-----|--|--|--|--|--|
| ET 2371*, 2371L (201) Materials and Fabrications/Metals and Ceramics | 3 | | | | | |
| ET 2372*, 2372L (202) Materials and Fabrications/Plastics and Composites | 3 | | | | | |
| ET 2375*, 2375L (215) Electronic Devices and Circuits | 3 | | | | | |
| ET 3301* (301) Fundamentals of Manufacturing Technology | 3 | | | | | |
| ET 3360* (360) Plant Design and Layout | 3 | | | | | |
| ET 4314 (414) Industrial Quality Assurance | 3 | | | | | |
| ET 4370 (470) Industrial Safety and Accident Prevention | 3 | | | | | |
| ET 4380* (480) Design Implementation | 3 | | | | | |
| CHEM 1411*, 1411L (101) Chemistry I AND CHEM 1412*, 1412 (102) Chemistry II | 8 | | | | | |
| MATH 2413* (240) Calculus I | 4 | | | | | |
| ET/PHYS 3302 (PHYS 302, 3302) Wind Energy & Wind Turbines ET/PHYS 3303 (PHYS 301, 3301) Solar Energy ET 3315*, 3315L (315) Digital Electronics ET 3330*, 3330L (330) Fluid Power/Power Transmission ET 4301*, 4301L (401) Machining Fundamentals ET 4311* (411) Industrial Design and Ergonomics ET 4325*, 4325L (425) Computer-Aided Drafting and Design ET 4330*, 4330L (430) Numerical Control and Computer-Aided Manufacturing ET 4350 Renewable Energy ET 4351 Bioenergy ET 4352 Geothermal Energy | 12 | | | | | |
| ADVANCED ELECTIVES: 12 HOURS Select four upper-level ET courses (or CS, MGT, ENGR, MENG, CENG, EVEG or other courses after consulting with an adviser). | | | | | | |
| ADVANCED ET COURSE (or other after advisor consultation) | 3 | | | | | |
| ADVANCED ET COURSE (or other after advisor consultation) | 3 | | | | | |
| ADVANCED ET COURSE (or other after advisor consultation) | 3 | | | | | |
| ADVANCED ET COURSE (or other after advisor consultation) | 3 | | | | | |
| ELECTIVE: 2 HOURS (if needed to total 120 overall) | | | | | | |
| ELECTIVE | 2 | | | | | |
| MINIMUM HOURS REQUIRED TO COMPLETE DEGREE | 120 | | | | | |

[♦] 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.

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.

^{*} Indicates prerequisites—see catalog for more information.

^{**} 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.

Engineering Technology Option I—Renewable Energy Technology, Manufacturing/Industrial

2014 - 2015 Curriculum Guide

School of Engineering and Computer Science Advising Services Bachelor of Science Degree BS.ENGR.TECH

Degree Plan Total Hours: 120 Major Code: 112 ECS 119 651-5257

| First Ye | First Year | | | | | | |
|----------|---------------------------|---|--------|---------------------------|---|--|--|
| | Fall | | | Spring | | | |
| | CORE 10-ENGL 1301 | 3 | l | CORE 90-ENGL 2311 | 3 | | |
| H 0 | | | H o | | | | |
| u | CORE 20-MATH | 4 | u | MATH 2413 | 4 | | |
| r | 1316 or 2412 | | r | | | | |
| s | ENGR 1375 | 3 | S | ENGR 1301 | 3 | | |
| | | | | | | | |
| 16 | ENGR 1304 | 3 | 17 | CHEM 1411/1411L | 4 | | |
| 10 | | | -′ | | | | |
| | CORE 80 | 3 | | CORE 50- | 3 | | |
| | See Checklist for Options | | | See Checklist for Options | | | |
| | | | | | | | |
| | | | | | | | |

| Second | Second Year | | | | | | |
|--------|--------------------------|-------------------|--------|-------------------------------|---|--|--|
| | Fall | Spring | | | | | |
| l | ENGR 2301 | 3 | Н | ET 2375 | 3 | | |
| H o | | | 0 | | | | |
| u | CORE 10-COMM | 3 | u | ET 2372 | 3 | | |
| r | 1315, 1318 or 1321 | 315, 1318 or 1321 | | | | | |
| s | ET 2371 | 3 | r s | CORE 30-LAB SCIENCE | 4 | | |
| | | | | PHYS 1401/1401L or 2425/2425L | | | |
| 16 | CORE 60-HIST | 3 | 16 | ENGR 2302 | 3 | | |
| 10 | 1301, 1302, 2301 or 2381 | | 10 | | | | |
| | CHEM 1412/1412L | 4 | | CORE 60-HIST | 3 | | |
| | | | | 1301, 1302, 2301 or 2381 | | | |
| | | | | | | | |
| | | | | | | | |

| Third Y | Third Year | | | | | | |
|---------|--------------|-----|--------|-----------------------------------|---|--|--|
| | Fall | | | Spring | | | |
| | CORE 70-POSC | 3 | ١ | CORE 70-POSC | 3 | | |
| Н | 2305 or 2306 | | Н | 2305 or 2306 | | | |
| o u | ENGR 1171 | 1 | o u | ET ELECTIVE | 3 | | |
| r | | u r | | See Checklist for list of options | | | |
| S | ET 3360 | 3 | S | ET 4314 | 3 | | |
| | | | | | | | |
| 13 | ET 4370 | 3 | 16 | CORE 30-LAB SCIENCE | 4 | | |
| 15 | | | 10 | PHYS 1402/1402L or 2426/2426L | | | |
| | ET 3301 | 3 | | ET Elective | 3 | | |
| | | | | By advisement | | | |
| | | | | | | | |
| | | | | | | | |

| Fourth | Fourth Year | | | | | | |
|--------|-----------------------------------|-----|--------|-----------------------------------|---|--|--|
| | Fall | | | Spring | | | |
| | CORE 40 | 3 | l l | ET ELECTIVE | 3 | | |
| Н | See Checklist for Options | | Н | See Checklist for list of options | | | |
| o u | ET 4380 | 3 | o u | ET ELECTIVE | 3 | | |
| r | | | r | By advisement | | | |
| S | ET ELECTIVE | 3 | s | ET ELECTIVE | 3 | | |
| | See Checklist for list of options | | | By advisement | | | |
| 14 | ET ELECTIVE | 3 | 12 | ET ELECTIVE | 3 | | |
| 14 | See Checklist for list of options | | 12 | By advisement | | | |
| | ELECTIVE | 2 | | | | | |
| | If needed to total 120 overa | all | | | | | |
| | | | | | | | |
| | | | | | | | |

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.