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

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

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

| 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*, or 2315*  **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 (Code 60)** | | |
| HIST 1301, 1302, 2301, 2381  **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) | |

| COMPUTER SCIENCE—MECHANICAL ENGINEERING TRACK MAJOR REQUIREMENTS: 94 HOURS |
|---|
| • 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**<br>MATH 2413*[3] Calculus I | 3 | |
| **CORE 30**<br>PHYS 2425*[3] and 2426*[3] | 6 | |
| **CORE 90**<br>MATH 2413[1], PHYS 2425L[1], and 2426L[1] | 3 | |
| **CORE 90**<br>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 | |
| 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**<br>ENGR 2332* Mechanics of Materials I<br>*Choice depends upon choice of advanced MENG courses.* | 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.**

Advising Services

**Computer Science  -  Mechanical Engineering Track**
Department of Engineering and Computer Science
Bachelor of Science Degree
BS.CS.MENG

ECS 119          651-5257                    Degree Plan Total Hours:    121                    Major Code:  307

## First Year

| Hours | Fall | | Hours | Spring | |
|---|---|---|---|---|---|
| 15 | CS 1301 | 3 | 16 | CS 1337 | 3 |
| | CORE 80 | 3 | | CORE 40 | 3 |
| | See Checklist for Options | | | See Checklist for Options | |
| | CORE 10-ENGL 1301 | 3 | | CORE 90-ENGL 2311 | 3 |
| | CORE 60-HIST | 3 | | CORE 60-HIST | 3 |
| | 1301, 1302, 2301 or 2381 | | | 1301, 1302, 2301 or 2381 | |
| | CORE 10-COMM | 3 | | MATH 2413 | 4 |
| | 1315, 1318 or 1321 | | | | |

## Second Year

| Hours | Fall | | Hours | Spring | |
|---|---|---|---|---|---|
| 17 | CS 2336 | 3 | 16 | CS 2325 | 3 |
| | MATH 2321 | 3 | | CORE 30-LAB SCIENCE | 4 |
| | | | | PHYS 2426/2426L | |
| | CORE 30-LAB SCIENCE | 4 | | MATH 2322 | 3 |
| | PHYS 2425/2425L | | | | |
| | MATH 2414 | 4 | | CS 3305 | 3 |
| | ENGR 1304 OR 2332 | 3 | | MATH 3340 | 3 |

## Third Year

| Hours | Fall | | Hours | Spring | |
|---|---|---|---|---|---|
| 15 | CS 3307 | 3 | 15 | ENGR 2302 | 3 |
| | ENGR 2301 | 3 | | CS 3310 | 3 |
| | CS 3352 | 3 | | CS 3315 | 3 |
| | CS 4325 | 3 | | CS 3372 | 3 |
| | MATH 3342 | 3 | | CORE 70-POSC | 3 |
| | | | | 2305 or 2306 | |

## Fourth Year

| Hours | Fall | | Hours | Spring | |
|---|---|---|---|---|---|
| 15 | MENG ELECTIVE | 3 | 12 | CORE 70-POSC | 3 |
| | | | | 2305 or 2306 | |
| | CS 4340 | 3 | | CS 4391 | 3 |
| | CORE 50-ARTS | 3 | | CS 4385 | 3 |
| | See Checklist for Options | | | | |
| | CS 4390 | 3 | | MENG ELECTIVE | 3 |
| | MENG 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.

8/27/15