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

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

Bachelor of Science Degree
BS.CS (307)

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**	3	
American History (Code 60)		
HIST 1301 *(201)*, 1302 *(202)*, 2301, 2381 **Choose 2**	6	
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)*; ANTH 2351 *(201)*; CRIJ 1301 *(CJ 105)*; ECON 2301 *(ECO 201)*, 2302 *(ECO 202)*; PSYC 2301 *(PSY 201)*; SOCI 1301 *(201)* **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 MATH 2413*[3] *(240)* Calculus I	3	
CORE 30 PHYS 2425*[3] *(210)* and 2426*[3] *(211)*	6	
CORE 90 MATH 2413[1], PHYS 2425L[1], and 2426L[1]	3	
CORE 90 ENGL 2311* *(ENG 270)* Introduction to Professional and Technical Communication	3	

MAJOR REQUIREMENTS: 45 HOURS		
CS 1301 Introduction to Computer Science	3	
CS 1337, 1337L *(1437)* Introduction to Object-Oriented Programming	3	
CS 2325*, 2325L *(2425)* Computer Organization and Assembly Language	3	
CS 2336*, 2336L *(2436)* Objects and Data Abstraction	3	
CS 3305* *(290, 2377)* Data Structures and Algorithms	3	
CS 3307* *(307)* Algorithm Design and Analysis	3	
CS 3310* Programming Languages	3	

CS 3315* *(315)* Scripting Languages	3	
CS 3352* Operating Systems and Networking	3	
CS 3372* Net-Centric Computing	3	
CS 4325* *(425)* Computer Architecture	3	
CS 4340* Database Systems Use, Design and Implementation	3	
CS 4385* *(485)* 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* *(241)* Calculus II	4	
MATH 3340* *(340)* Calculus III	3	
MATH 3342* *(342)* Differential Equations I	3	
ADDITIONAL REQUIREMENTS FOR MECHANICAL ENGINEERING TRACK: 18 HOURS		
ENGR 1304* *(125)* Engineering Graphics **OR** ENGR 2332* *(MENG 350, 3340)* Mechanics of Materials I *Choice depends upon choice of advanced MENG courses.*	3	
ENGR 2301* *(230)* Engineering Statics	3	
ENGR 2302* *(125)* 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 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.

Advising Services

2014 - 2015 Curriculum Guide

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.

7/26/14