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—Software Engineering Track
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 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—SOFTWARE ENGINEERING TRACK 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] Calculus I	3		
CORE 30 CHEM 1411*[3] and 1412*[3] **OR** PHYS 2425*[3] and 2426*[3]	6		
CORE 90 MATH 2413[1] **AND** CHEM 1411L[1] and 1412L[1] **OR** 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		
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		
Take 6 hours from: MATH 3311* Linear Algebra MATH 3321* Probability and Finite Mathematics MATH 3325* Introduction to Proofs MATH 3340* Calculus III MATH 3342* Differential Equations I MATH 3343* Differential Equations II MATH 4310* Modern Algebra with Cryptography MATH 4340* Complex Variables I MATH 4341* Advanced Calculus MATH 4361* Statistics for the Sciences MATH 4362* Introduction to Numerical Analysis	6		
ADDITIONAL REQUIREMENTS FOR SOFTWARE ENGINEERING TRACK: 18 HOURS			
CS 3303* Object-Oriented Software Development	3		
CS 4360* Approaches to Internet and Computer Networks Security	3		
Take twelve hours from: CS 3321*, 3322*, 3387*, 4095*, 4097*, 4310*, 4321*, 4322*, 4330*, 4350*, 4392*, 4398	12		
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.