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

Computer Science—Data Science Track
Engineering and Computer Science
ECS Building, Room 119   651-5257

Bachelor of Science Degree
BS.CS.DATA.SCI (307)

CORE CURRICULUM COURSES: 42 HOURS ♦	HRS	
Communication (Core 10)		
ENGL 1301 Intro. to Academic Writing & Argumentation **OR** ENGL 1311 Writing About Ideas	3	
COMM 1315, 1318, or 1321**	3	
Mathematics (Core 20)		
See **University Core Requirements** below	(4)	
Life and Physical Sciences (Core 30)		
See **University Core Requirements** below	(6)	
Language, Philosophy and Culture (Core 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 (Core 50)		
ARTS 1301, 1303, 1304; DANC 2303; MUSI 1306, 1307 (for music majors), 1310; or THRE 1310 **Choose 1**	3	
American History (Core 60)		
HIST 1301, 1302, 2301, 2381, 2382 **Choose 2**	6	
Government/Political Science (Core 70)		
POSC 2305 and 2306	6	
Social and Behavioral Sciences (Core 80)		
AGBE 2317*; COMM 2377; CRIJ 1301; ECON 2301, 2302; PSYC 2301; SOCI 1301 **Choose 1**	3	
Component Area Option (Core 90)		
See **University Core Requirements** below	(6)	

COMPUTER SCIENCE—ENTERPRISE SYSTEMS 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 ENGL 1302* Academic Writing and Research **OR** ENGL 1312* Writing About Ideas II **OR** ENGL 2311* Introduction to Professional and Technical Communication	3	
CORE 90 MATH 2413[1] **AND** CHEM 1411L[1] and 1412L[1] **OR** PHYS 2425L[1] and 2426L[1]	3	

MAJOR REQUIREMENTS: 51 HOURS		
CS 1301 Introduction to Computer Science	3	
CS 1337, 1337L Programming Principles I **OR** CIDM 2315 Programming Business Applications	3	
CS 2325*, 2325L Computer Organization and Assembly Language	3	
CS 2337*, 2337L Programming Principles II	3	
CS 3303* Object-Oriented Software Development	3	
CS 3305* Data Structures and Algorithms	3	

CS 3307* Algorithm Design and Analysis	3	
CS 3310* Programming Languages	3	
CS 3340* Software Engineering **OR** CIDM 4360* Object-Oriented Analysis and Design	3	
CS 3352* Operating Systems and Networking	3	
CS 3372* Net-Centric Computing **OR** CIDM 3385* Network Security and Data Communications	3	
CS 4325* Computer Architecture	3	
CS 3350* Database Systems Use, Design and Implementation **OR** CIDM 3350* Database Systems Design	3	
CS 4360* Approaches to Internet and Computer Networks Security	3	
CS 4385* Concurrency and Distributed Systems	3	
CS 4390* Senior Capstone Project I	3	
CS 4391* Senior Capstone Project II	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 MATH 4310* Modern Algebra with Cryptography MATH 4361* Statistics for the Sciences	6	

ENTERPRISE SYSTEMS TRACK: 12 HOURS		
CS 3341* Introduction to Data Science	3	
CS 3387* Artificial Intelligence	3	
CS 4341* Data Science I	3	
CS 4342* Data Science II	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 36 hours of advanced work (3000- or 4000-level courses) for which tuition is paid must be earned at WTAMU. 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. All undergraduate students must request an official degree plan from their academic dean's office by the time they have completed 30 credit hours.

Major: Computer Science - Data Science Track   Major Code: 307

First Year	
Fall	Spring
Semester Hours	Semester Hours

Second Year	
Fall	Spring
Semester Hours	Semester Hours

Third Year	
Fall	Spring
Semester Hours	Semester Hours

Fourth Year	
Fall	Spring
Semester Hours	Semester Hours

Degree Total Hours   120

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 30 hours. Students should always seek the advice of their academic adviser before scheduling classes.

Identified Marketable Skills:	Top 3 Local Employers or Industries/Professional Programs/Possible Career Opportunities

Prerequisites/Important Sequences/Other degree Notes: