

WTAMU ADVISING SERVICES – 2025-2026 Curriculum Guide

Major: Computer Science – Data Science Track, B.S.

Major Code: 307

Year 1: Fall		Year 1: Spring	
CS 1301 (Introduction to Computer Science)	3	CS 1337/1337L Programming Principles I or CIDM 2315 Programming Business Applications	3
CORE 10 (Communication) – ENGL 1301 or 1311	3	CORE 20 (Mathematics) – MATH 2413 Calculus I	4
CORE 10 (Communication) – COMM 1315, 1318 or 1321	3	CORE 60 (American History) – See checklist for options ¹	3
CORE 40 (Lang., Phil. & Culture) – See checklist for options ¹	3	CORE 80 (Soc. & Behav. Sci.) – See checklist for options ¹	3
CORE 60 (American History) – See checklist for options ¹	3	CORE 90 (Component Area Option) – ENGL 1302, 1312 or 2311	3
Total:	15	Total:	16
Year 2: Fall		Year 2: Spring	
CS 2337/2337L Programming Principles II	3	CS 3305 Data Structures & Algorithms	3
MATH 2321 Discrete Structures I	3	CS 3325/3325L Computer Organization & Assembly Languages	3
MATH 2414 Calculus II	4	MATH 2322 Discrete Structures II	3
CORE 30 (Life & Phys. Sci.) – CHEM 1411 or PHYS 2425	3	CORE 30 (Life & Phys. Sci.) – CHEM 1412 or PHYS 2426	3
CORE 70 (Govt./Political Sci.) – POSC 2305	3	CORE 70 (Govt./Political Sci.) – POSC 2306	3
CORE 90 (Component Area Option) – CHEM 1411L or PHYS 2425L	1	CORE 90 (Component Area Option) – CHEM 1412L or PHYS 2426L	1
Total:	17	Total:	16
Year 3: Fall		Year 3: Spring	
CS 3307 Algorithm Design & Analysis	3	CS 3303 Object-Oriented Software Development	3
CS 3310 Programming Languages	3	CS 3340 Software Engineering or CIDM 4360 Object-Oriented Analysis & Design	3
CS 3352 Operating Systems & Networking	3	CS 3341 Introduction to Data Science	3
CS 3387 Artificial Intelligence	3	CS 3372 Net-Centric Computing or CIDM 3385 Network Security & Data Communications	3
CS 4325 Computer Architecture	3	Take 1 st of 2 courses from: MATH 3311, 3321, 4310 or 4361	3
Total:	15	Total:	15
Year 4: Fall		Year 4: Spring	
CS 3350 Database Systems Use, Design & Implementation or CIDM 3350 Database Systems Design	3	CS 4342 Data Science II	3
CS 4341 Data Science I	3	CS 4385 Concurrency & Distributed Systems	3
CS 4360 Approaches to Internet & Computer Networks Security	3	CS 4391 Senior Capstone Project II	3
CS 4390 Senior Capstone Project I	3	CORE 50 (Creative Arts) – See checklist for options ¹	3
Take 2 nd of 2 courses from: MATH 3311, 3321, 4310 or 4361	3		
Total:	15	Total:	12

¹ **CORE:** Computer Science majors are required to take specific courses for Core 20, Core 30, and Core 90. For all other categories, they may select from any available options (see degree checklist). Apart from the major-specific core requirements, there is no set order in which core courses must be taken.

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

Additional notes:

- 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.
- 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 (RELI) and six semester hours in physical education (PHED) courses can count toward a baccalaureate degree.

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.