

**AA, General Studies- Computer Science to
Bachelor of Science in Computer Science
Software Engineering Concentration^T
Guided Pathway
Effective for the 2019-2020 Catalog**

First Year – North Central Texas College

FIRST SEMESTER	SECOND SEMESTER
ENGL 1301 Composition I	ENGL 2311 Technical Writing
HIST 1301 US History I	HIST 1302 US History II or HIST 2301 Texas History
EDUC/PSYC 1300 Learning Frameworks	MATH 2318 Linear Algebra*
MATH 2413 Calculus I*	MUSI 1306 or other Creative Arts core
COSC 1436 Programming Fundamentals I	COSC 1437 Programming Fundamentals II

Total Semester Hours: 17

Total Semester Hours: 16

Second Year – North Central Texas College

It's best to apply to Tarleton State University a full semester before you plan to transfer.

FIRST SEMESTER	SECOND SEMESTER
GOVT 2305 American National Government	GOVT 2306 Texas Government
ECON 2301 Macroeconomics or other Social Science	SPCH 1311 Intro to Communications, SPCH 1315 Public Speaking, or SPCH 1321 Business & Professional
COSC 2436 Programming Fundamentals III	PHYS 2426 University Physics II
PHYS 2425 University Physics I	COSC 2425 Comp. Org, MATH 2320 Diff. Equations, MATH 2415 Calculus III, or Science core
PHIL 2306 Intro to Ethics or other Language/Philosophy/Culture core	

Total Semester Hours: 17

Total Semester Hours: 14

Associates of Arts- General Studies- Computer Science Majors

You will need to apply for the associate's degree at your community college. Contact your advisor there for more information.

These courses may be completed at NCTC or TSU

Technical Elective ^x	Technical Elective ^x
MATH 2414 – Calculus II	^c MATH 1342 – Elementary Statistical Methods

Total Semester Hours: 13

Third Year – Tarleton State University

FIRST SEMESTER	SECOND SEMESTER
COSC 2331 – Introduction to Java Programming	COSC 3380 – Operating Systems
MATH 3310 – Discrete Mathematics	COSC 3489 – Software Engineering I
COSC 3443 – Computer Architecture	COSC 1310 – Procedural Programming
COSC 1302 – Introduction to Computer Science	COSC 2321 – Object Oriented Programming

Total Semester Hours: 13

Total Semester Hours: 13

Fourth Year – Tarleton State University

FIRST SEMESTER	SECOND SEMESTER
COSC 3390 – Software Engineering II	COSC 4389 – Programming Language Fundamentals
COSC 4451 – Distributed Applications	COSC 4401 – Database Theory and Practice
COSC 2341 – Data Structures	
COSC 2448 – Introduction to Digital Systems Design	COSC 4478 – Computer Networks

Total Semester Hours: 14

Total Semester Hours: 11

Total Degree Hours: 128

This is not an official degree plan. Check with an advisor; degree plans may change in later catalogs.

Part-time students may also follow this sequence. Developmental coursework may be required.

^c This course counts for the Core Curriculum at any public college or university in Texas.

^T Degree availability varies by campus; consult www.tarleton.edu for more information.

^x Choose any course with the following prefix: BIOL, CHEM, COSC, ENGR, ENGT, MATH, PHYS

^{*}**MATH 1314 is a prerequisite to CHEM 1411, and MATH 1314 along with either MATH 1316 or 2412 are prerequisites to MATH 2413 and PHYS 1401 or 2425. Until you have completed these prerequisites you will be under a General Studies major (AA or AS degree). Some Math prerequisites may be satisfied by earning required scores on CLEP, AP, IB, ACT, SAT, or an NCTC approved Math placement exam. Please see an advisor at NCTC for details.**