



STEM

## Associate of Science – Field of Study in Computer Science

to

Bachelor of Science in Computer Science

Software Engineering Concentration<sup>†</sup>

**Guided Pathway**

Effective for the 2019-2020 catalog<sup>1</sup>



BHC CVC EFC ECC NLC RLC

### First Year – Brookhaven, Cedar Valley, Eastfield, El Centro, North Lake, and Richland College<sup>2</sup>

FIRST SEMESTER		SECOND SEMESTER	
<sup>c</sup> ENGL 1301 – Composition I	(010)	<sup>c</sup> ENGL 1302 – Composition II	(010)
<sup>c</sup> HIST 1301 – United States History I	(060)	<sup>c</sup> HIST 1302 – United States History II*	(060)
<sup>c</sup> MATH 2412 – Pre-Calculus Math <sup>^</sup>	(020)	MATH 2413 – Calculus I	
COSC 1436 – Programming Fundamentals I		<sup>c</sup> Social/Behavioral Sciences Core Elective*	(080)
		COSC 1437 – Programming Fundamentals II	

Total Semester Hours: 14

Total Semester Hours: 17

### Second Year – Brookhaven, Cedar Valley, Eastfield, El Centro, North Lake, and Richland College

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

FIRST SEMESTER		SECOND SEMESTER	
<sup>c</sup> GOVT 2305 – Federal Government	(070)	<sup>c</sup> GOVT 2306 – Texas Government	(070)
MATH 2414 – Calculus II+		<sup>c</sup> PHYS 2426 – University Physics II	(030)
<sup>c</sup> PHYS 2425 – University Physics I	(030)	<b>Choose One:</b> <sup>c</sup> ARTS 1301 – Art Appreciation*,	(050)
		<sup>c</sup> DANC 2303 – Dance Appreciation*,	(050)
		<sup>c</sup> DRAM 1310 – Introduction to Theater*,	(050)
		<sup>c</sup> HUMA 1315 – Fine Arts Appreciation*,	(050)
		<sup>c</sup> MUSI 1306 – Music Appreciation*	(050)
COSC 2436 – Programming Fundamentals III		COSC 2425 – Computer Organization	

Total Semester Hours: 15

Total Semester Hours: 14

### Associate of Science – Field of Study in Computer Science (60 hours)

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 DCCCD or TSU	
<sup>c</sup> Communication Core Elective	<sup>c</sup> Language, Philosophy, & Culture Core Elective
<sup>c</sup> First Year Seminar Elective (Learning Frameworks)	<sup>c</sup> MATH 1342 – Elementary Statistical Methods
Technical Elective <sup>x</sup>	

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 4478 – Computer Networks
COSC 2448 – Introduction to Digital Systems Design	

Total Semester Hours: 14

Total Semester Hours: 11

Total Degree Hours:

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

<sup>1</sup> Degree plans may change in later catalogs. You may use this pathway if you entered one of the seven colleges on or before this date.

<sup>2</sup> Students must earn at least 25% of the credit hours (15 hours) required for graduation through instruction by one of the seven DCCCD colleges awarding the degree.

<sup>^</sup> To register for MATH 2413, students must have completed the prerequisite math courses as follows: MATH 1314, MATH 1316, MATH 2412

<sup>c</sup> This course counts for the Core Curriculum at any public college or university in Texas. This degree does not include all Core course requirements.

\* There are several options to fulfill this requirement. See your academic advisor for a specific list.

+ Some universities require the completion of MATH 2415, as well.

You must earn a grade of "C" or better in English 1301 and the selected college-level mathematics course and receive a GPA of at least 2.00 on all college-level course work.

(j) Course numbers shown in parentheses are equivalent to the courses at Tarleton State University

<sup>†</sup> Degree availability varies by campus; consult [www.tarleton.edu](http://www.tarleton.edu) for more information.

Approved: 2019-2020 Guided Pathway