



Associate of Science-Computer Science to  
Bachelor of Science in Computer Science  
Software Engineering Concentration<sup>T</sup>



**Guided Pathway**

Effective for the 2019-2020 Catalog  
**First Year – Galveston College**

| FIRST SEMESTER                       | SECOND SEMESTER                       |
|--------------------------------------|---------------------------------------|
| <sup>C</sup> ENGL 1301 Composition I | <sup>C</sup> ENGL 1302 Composition II |
| <sup>C</sup> HIST 1301 US History I  | <sup>C</sup> HIST 1302 US History II  |
| <sup>C</sup> MATH 2413 Calculus I    | <sup>C</sup> MATH 2414 Calculus II    |
| COSC 1336 Programming Fundamentals I | COSC 1337 Programming Fundamentals II |
| <sup>C</sup> Communication Elective  | <sup>C</sup> Creative Arts Elective   |

Total Semester Hours: 16

Total Semester Hours: 16

**Second Year – Galveston College**

It's 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   | <sup>C</sup> GOVT 2306 Texas Government              |
| COSC 2325 Computer Organization             | <sup>C</sup> PHYS 2426 University Physics II         |
| <sup>C</sup> PHYS 2425 University Physics I | <sup>C</sup> Language, Philosophy & Culture Elective |
| COSC 2336 Programming Fundamentals III      | <sup>C</sup> Social & Behavioral Science Elective    |
|   | MATH 1342 Elementary Statistical Methods             |

Total Semester Hours: 13

Total Semester Hours: 16

**AS: Computer Science**

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 GC or TSU**

|  |  |
|--|--|
| <sup>C</sup> First Year Seminar Elective (Learning Frameworks) |  |
| COSC 2331 – Introduction to Java Programming                   | COSC 1302 – Introduction to Computer Science       |
| COSC 1310 – Procedural Programming                             | COSC 2341 – Data Structures                        |
| COSC 2321 – Object Oriented Programming                        | COSC 2448 – Introduction to Digital Systems Design |

Total Semester Hours: 20-22

**Third Year – Tarleton State University**

| FIRST SEMESTER                           | SECOND SEMESTER                          |
|--|--|
| Advanced Technical Elective <sup>X</sup> | COSC 3380 – Operating Systems            |
| MATH 3310 – Discrete Mathematics         | COSC 3489 – Software Engineering I       |
| COSC 3443 – Computer Architecture        | Advanced Technical Elective <sup>X</sup> |
| Advanced COSC or MATH Elective           | Advanced COSC or MATH Elective           |

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      |
| Advanced Technical Elective <sup>X</sup> | COSC 4478 – Computer Networks                 |

Total Semester Hours: 10

Total Semester Hours: 11

TOTAL: 128-130

**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.

\* You may take a different course to meet this requirement. A specific list is available from your advisor.

<sup>C</sup> This course counts for the Core Curriculum at any public college or university in Texas.

() Course numbers shown in parentheses are equivalent to these courses at Tarleton State University.

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

<sup>X</sup> Choose any course with the following prefix: BIOL, CHEM, COSC, ENGR, ENGT, GEOS, MATH, PHYS