



Associate of Science-Computer Science to  
Bachelor of Science in Computer Science  
Computer 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 (if offered) or TSU**

<sup>C</sup> First Year Seminar Elective (Learning Frameworks)	COSC 1310 – Procedural Programming
COSC 1302 – Introduction to Computer Science	COSC 2448 – Introduction to Digital Systems Design
COSC 2341 – Data Structures	ELEN 2425 – Electrical Circuit Theory
COSC 2331 – Introduction to Java Programming	

Total Semester Hours: 21-23

**Third Year – Tarleton State University**

FIRST SEMESTER	SECOND SEMESTER
ELEN 3314 – Signals and Systems (Fall Only)	Advanced Technical Elective
MATH 3310 – Discrete Mathematics (Fall Only)	MATH 3306 – Differential Equations
COSC 3443 – Computer Architecture (Fall Only)	ELEN 3445 – Electronics I <b>OR</b>
	ELEN 4350 – Communication Systems Theory <b>OR</b>
	ELEN 4355 – Digital Signal Processing <b>OR</b>
	ELEN 4443 – Linear Control System Design
COSC 4441 – Microprocessor System Design (Fall Only)	

Total Semester Hours: 14

Total Semester Hours: 9-10

**Fourth Year – Tarleton State University**

FIRST SEMESTER	SECOND SEMESTER
COSC 4478 – Computer Networks (Fall Only)	
ELEN 3445 – Electronics I <b>OR</b>	ELEN 3445 – Electronics I <b>OR</b>
ELEN 4350 – Communication Systems Theory <b>OR</b>	ELEN 4350 – Communication Systems Theory <b>OR</b>
ELEN 4355 – Digital Signal Processing <b>OR</b>	ELEN 4355 – Digital Signal Processing <b>OR</b>
ELEN 4443 – Linear Control System Design	ELEN 4443 – Linear Control System Design
Advanced Technical Elective	COSC 3380 – Operating Systems (Spring Only)
Advanced Technical Elective	COSC 3489 – Software Engineering I (Spring Only)

Total Semester Hours: 13-14

Total Semester Hours: 10-11

TOTAL: 128-133

**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.

For questions about the University portion of this pathway,  
contact the Engineering and Computer Science Department at 254-968-9863..