



**AS General Studies**  
**Physics Emphasis to**  
**Bachelor of Science in Physics<sup>T</sup>**  
**Guided Pathway**  
 Effective beginning with the 2020-2021 catalog



### First Year - Collin College

(Developmental coursework may be required.)

FIRST SEMESTER	SECOND SEMESTER
<sup>C</sup> ENGL 1301 Composition I	<sup>C</sup> ENGL 1302 Composition II (or ENG 2311)
<sup>C</sup> MATH 2413 – Calculus I	MATH 2414 – Calculus II
<sup>C</sup> Speech (see list below) – 3 hours	<sup>C</sup> Lang, Phil, & Culture (see list below) - 3 hours
<sup>C</sup> History (see list below) – 3 hours	<sup>C</sup> History (see list below) – 3 hours
<sup>C</sup> PHYS 2425 University Physics I	<sup>C</sup> PHYS 2426 University Physics II

### Second Year - Collin 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
<sup>C</sup> Related Elective (see list below) - 4 hours	<sup>C</sup> Creative Arts (see list below) – 3 hours
<sup>C</sup> Social/Behavioral Science (see list below) -3 hours	Related Elective (see list below) - 4 hours
Related Elective (see list below) - 4 hours	Related Elective (see list below) - 4 hours

### AA in General Studies

Contact your advisor at Collin College for information about applying for your Associate's degree.

### Third Year – Tarleton State University

These courses may be completed at CC or TSU	
COSC Elective	Support Field Elective <sup>+</sup>
<sup>C</sup> First Year Seminar Elective (Learning Frameworks)	Support Field Elective <sup>+</sup>
Support Field Elective <sup>+</sup>	Support Field Elective <sup>+</sup>
FIRST SEMESTER	SECOND SEMESTER
<b>PHYS 3331</b> – Mechanics I (Fall Only)	<b>PHYS 3334</b> – Modern Physics I
<b>PHYS 3332</b> – Electromagnetic Field Theory (Fall Only)	<b>PHYS 4330</b> – Mathematical Methods for Physics and Engineering (Spring Only)
<b>MATH 3306</b> – Differential Equations	<b>PHYS 4340</b> – Advanced Physics Lab (Spring Only)
<b>MATH 3433</b> – Calculus III	Advanced Support Field Elective <sup>+</sup>

### Fourth Year – Tarleton State University

FIRST SEMESTER	SECOND SEMESTER
<b>PHYS 4335</b> – Quantum Physics (Fall Only)	<b>PHYS 4337</b> – Nuclear Physics (Spring Only)
<b>PHYS 4161</b> – Physics Research Project (Fall Only)	<b>PHYS 4162</b> – Physics Research Seminar (Spring Only)
<b>PHYS 3333</b> – Thermodynamics (Fall Only)	Advanced Physics Elective
Advanced Physics Elective	Advanced Support Field Elective <sup>+</sup>

**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.

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

<sup>()</sup> 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.

Mathematics – **AS degree** MUST choose TWO from: **MATH** 1314, 1414, 1316, 1342, 2305, 2318, 2320, 2412, 2413\*, 2414\*, 2415. (\*recommended)

Speech – choose one from: **SPCH** 1311, 1315, or 1321

History – choose two from: **HIST** 1301, 1302, 2301

Language, Philosophy, & Culture - choose one from: **ENGL** 2322, 2323, 2327, 2328, 2332, 2333, 2342, 2343, **HIST** 2311, 2312, 2321, 2322, **HUMA** 1301, **PHIL** 1301, 1304, 2303, 2306, 2307, 2321

Social and Behavioral Sciences – choose one from: **ANTH** 2302, 2346, 2351, **ECON** 2301, 2302, **PSYC** 2301, **SOCI** 1301, 1306

Creative Arts - choose one from: **ARTS** 1301, 1303, 1304, 1313, **DANC** 2303, **DRAM** 1310, 2361, 2362, 2366, **MUSI** 1306, 1307, 1310

Related Electives - choose at least 12 hours from:

PHYS 1403 Stars and Galaxies

CHEM 1411 General Chemistry I

CHEM 1412 General Chemistry II

ENGL 2311 Technical and Business Writing    MATH 2318 Linear Algebra **or Higher**

*For questions about the university portion of this pathway, contact the Department of Chemistry, Geosciences, and Physics at 254-968-9953.*