

# PHYSICS

## Associate of Science degree



### Program and Career Description:

The Physics emphasis is a two-year program for students planning to complete a bachelor's degree in Physics. Students pursuing careers in physics instruction, basic research, industry, space and earth sciences, or seeking a graduate degree in physics should consider this degree (see <http://www.aip.org/careersvc/pify/indigo.html> for more career information).

### How is the Job Market?

Check out [www.jobs4tn.gov](http://www.jobs4tn.gov) website for information about job descriptions, education requirements and abilities, and supply and demand for these careers. For additional information from a national perspective, go to Bureau of Labor Statistics, U. S. Department of Labor website at [www.bls.gov](http://www.bls.gov). Visit the [Occupational Outlook Handbook](#) on this website. Salaries are not guaranteed.

### Transfer Options

This program is a Tennessee Transfer Pathway (TTP) major. A student who completes the associates degree in this major is guaranteed that all required community college courses will be accepted in this major at the transfer institution. To see which four-year institutions offer this TTP major and guarantees a seamless transfer, visit the Tennessee Transfer Pathway website at [www.tntransferpathway.org](http://www.tntransferpathway.org).

Transfer agreements exist between other private and non-TN public institutions. These agreements are available at [www.columbiastate.edu/transfer-information](http://www.columbiastate.edu/transfer-information).

### Requirements for Graduation include:

- earning 25% of total program credits in residence at Columbia State.
- earn a cumulative GPA of 2.0 or higher.
- taking the Exit Exam.

**For more information contact:**  
**David Fawcett at**  
**[dfawcett@columbiastate.edu](mailto:dfawcett@columbiastate.edu) or 931.540.2665**  
**or**  
**Sciences, Technology and Math Division office at**  
**931.540.2710 or [stm@columbiastate.edu](mailto:stm@columbiastate.edu)**

Columbia State Community College, a Tennessee Board of Regents institution, is an equal opportunity, affirmative action educational institution.  
CoSCC- PHYSICS-02-01-20



Student ID: \_\_\_\_\_  
 Student Name: \_\_\_\_\_  
 Adviser Name: \_\_\_\_\_

Catalog: 2020-2021 Catalog and Student Handbook  
 Program: Physics, A.S.  
 Minimum Credits Required: \_\_\_\_\_

## Physics, A.S.

Major in Tennessee Transfer Pathway with Emphasis in Physics (A.S.)

### Sample Academic Plan - Total Credit Hours: 61

Program Requirements - Students may be required to take additional Learning Support courses. Courses cannot be used more than once to satisfy program requirements. Students requiring MATH 1130 and MATH 1730 should take these courses prior to beginning the following pathway to ensure timely completion.

#### First Year - Fall Semester - Credit Hours: 17-18

Course Name	Credits:	Term Taken	Grade	Gen Ed
ENGL 1010 - English Composition I	Credits: 3			
MATH 1910 - Calculus I	Credits: 4			
CISP 1010 - Computer Science I OR CITC 1301 Introduction to Programming and Logic	Credits: 4			
<sup>1</sup> General Education - History Requirement *	Credits: 3			
<sup>2</sup> General Education - Humanities/Fine Arts Requirement	Credits: 3			
COLS 101 - Columbia State College Success	Credits: 1			

#### First Year - Spring Semester - Credit Hours: 13

Course Name	Credits:	Term Taken	Grade	Gen Ed
ENGL 1020 - English Composition II	Credits: 3			
MATH 1920 - Calculus II	Credits: 4			
<sup>1</sup> COMM 2025 - Fundamentals of Communication OR COMM 2055 Argumentation and Debate	Credits: 3			
<sup>1</sup> General Education - History Requirement *	Credits: 3			

#### Second Year - Fall Semester - Credit Hours: 14

Course Name	Credits:	Term Taken	Grade	Gen Ed
MATH 2110 - Calculus III	Credits: 4			
PHYS 2110 - Calculus-Based Physics I	Credits: 4			
<sup>2</sup> General Education - Literature Requirement	Credits: 3			
<sup>5</sup> General Education - Social/Behavioral Science Requirement	Credits: 3			

#### Second Year - Spring Semester - Credit Hours: 16

Course Name	Credits:	Term Taken	Grade	Gen Ed
PHYS 2120 - Calculus-Based Physics II	Credits: 4			
MATH 2010 - Introduction to Linear Algebra	Credits: 3			
MATH 2120 - Differential Equations	Credits: 3			
<sup>2</sup> General Education - Humanities/Fine Arts Requirement	Credits: 3			
<sup>5</sup> General Education - Social/Behavioral Science Requirement	Credits: 3			

### General Education Requirements (Only When Option Noted Above)

<sup>1</sup>**History Requirement** - Select from HIST 2010, HIST 2020, HIST 2030, HIST 2310, HIST 2320.

<sup>2</sup>**Humanities/Fine Arts Requirement** - Select from ART 1035, ART 2000, ART 2020, ENGL 2160, ENGL 2860, HUM 1010, HUM 1020, MUS 1030, PHIL 1030, PHIL 1040, PHIL 2200, THEA 1030. **Literature Options:** ENGL 2055, ENGL 2130, ENGL 2235, ENGL 2310, ENGL 2320.

<sup>3</sup>**Mathematics Requirement** - Select from MATH 1010, MATH 1130, MATH 1530, MATH 1630, MATH 1710, MATH 1720, MATH 1730, MATH 1830, MATH 1910.

<sup>4</sup>**Natural Sciences Requirement** - Select from ASTR 1030, BIOL 1010, BIOL 1020, BIOL 1080 (must pair with non-biology course except for BIOL 2010 or BIOL 2020), BIOL 1110, BIOL 1120, BIOL 2010, BIOL 2020, CHEM 1110, CHEM 1120, ESCI 1010, ESCI 1020, PHYS 2010, PHYS 2020, PHYS 2110, PHYS 2120, PSCI 1030.

<sup>5</sup>**Social/Behavioral Science Requirement** - Select from ANTH 1230, ANTH 1430, COMM 1010, ECON 2100, ECON 2200, GEOG 2010, PHED 2120, POLS 1010, POLS 1030, POLS 2025, POLS 2035, PSYC 1030, PSYC 2130, SOCI 1010, SOCI 1040, SOCI 2010.

### Note(s):

\*NOTE: Students transferring to the UT Knoxville will need to complete a two course sequence in non-U.S. History.

NOTE: Students transferring to the UT Knoxville will also have to meet the foreign language requirement, either prior to or when they attend UT Knoxville. This can be met prior to attending UT Knoxville, by completing 2000-level competency in a foreign language, by completing FREN 2020, GERM 2020 or SPAN 2020.

Check [www.tntransferpathway.org](http://www.tntransferpathway.org) to see which four-year institutions offer this TTP major. Students should meet with their assigned advisor to determine courses required for the university chosen.

Students and advisors should run a degree audit from myChargerNet each semester to confirm classes are applicable to the program of study.

#### For more information contact:

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