

# CHEMISTRY

## Associate of Science degree



### Program and Career Description:

The Chemistry emphasis is a two-year program for students planning to seek employment as a chemical technician or who plan to complete a bachelor's degree in such fields as Chemistry, Biochemistry, Chemical Engineering and Science Education, just to name a few. Students should consider this degree when pursuing careers in any of the fields described on the American Chemical Society (ACS) Website (<http://www.acs.org/content/acs/en/careers.html>) Also, a degree in chemistry is good preparation for students wishing to continue their post-baccalaureate education in graduate schools of chemistry, biochemistry, health related areas such as pharmacology and toxicology, as well as in professions schools of Medicine, Law, Pharmacy, Dentistry or Veterinary Science.

Career	Entry-Level Education	Entry-Level Pay	Median Pay	Experienced Pay
Chemical Technician	Associate's degree	\$30,550	\$45,680	\$55,070
Chemical Engineer	Bachelor's degree	\$68,250	\$95,270	\$112,230
Chemistry Teacher, Secondary	Bachelor's degree	\$38,830	\$49,770	\$56,890
Chemists and Materials Scientists	BS degree; MS or PhD for some jobs	\$48,320	\$90,680	\$109,870

Career and salary information taken from *JOBS4TN.GOV*. Check out this website for additional 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 on the internet 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).

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



# CHEMISTRY

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

### Program Requirements

Students may be required to take additional Learning Support courses.

#### Communications Requirement

COMM 2025 or COMM 2055  
ENGL 1010, 1020

#### History Requirement (Take 2 courses)

HIST 2010, 2020, 2030, 2310, 2320

#### Humanities/Fine Arts (Take 3 courses -- one must be a literature course)

ART 1035, 2000, 2020  
ENGL 2160, 2860  
HUM 1010, 1020  
MUS 1030  
PHIL 1030, 1040, 2200  
THEA 1030

Literature Options: ENGL 2055, 2130, 2235, 2310, 2320

#### Natural Sciences Requirement

CHEM 1110, 1120

#### Mathematics Requirement

MATH 1910

#### Social/Behavioral Sciences (Take 2 courses)

ANTH 1230, 1430  
ECON 2100, 2200  
GEOG 2010  
MCOM 1110  
PHED 2120  
POLS 1010, 1030, 2025, 2035  
PSYC 1030, 2130  
SOCI 1010, 1040, 2010

#### Major Required Courses

CHEM 2010, 2020  
COLS 101  
MATH 1920  
PHYS 2110, 2120

If you have completed TN eCampus courses, run a degree audit from the student tab in myChargerNet to determine how these courses apply to this program.

#### 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.

### Sample Academic Plan

#### First Year – Fall Semester

___ ENGL 1010	English Composition I	3
___ Humanities/Fine Arts		3
___ CHEM 1110	General Chemistry I	4
___ MATH 1910	Calculus I	4
___ COLS 101	Columbia State College Success	1
		<b>15</b>

#### First Year – Spring Semester

___ ENGL 1020	English Composition II	3
___ COMM 2025	Fundamentals of Communication <b>or</b>	
___ COMM 2055	Argumentation and Debate	3
___ CHEM 1120	General Chemistry II	4
___ MATH 1920	Calculus II	4
		<b>14</b>

#### Second Year – Fall Semester

___ Literature Requirement		3
___ Social/Behavioral Science		3
___ PHYS 2110	Calculus-Based Physics I	4
___ CHEM 2010	Organic Chemistry I	4
___ History Requirement		3
		<b>17</b>

#### Second Year – Spring Semester

___ CHEM 2020	Organic Chemistry II	4
___ Social/Behavioral Science		3
___ History Requirement		3
___ Humanities/Fine Arts		3
___ PHYS 2120	Calculus-Based Physics II	4
		<b>17</b>

#### TOTAL CREDIT HOURS 63

At some universities, foreign language may be required in certain programs that lead to the Bachelor of Science Degree. Complete information regarding foreign language requirements at each university may be found on the transfer and articulation web sites of the Tennessee Board of Regents and the University of Tennessee System. Community college students are encouraged to be familiar with foreign language requirements at the universities and, if applicable, complete the requirements before transferring.

#### For more information contact:

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