



Vol State Course Alignment with Targeted TDOE CTE Programs

- **STEM: BioSTEM**
- **STEM: Advanced STEM Applications**

Action Steps

- Review Vol State CTE-aligned courses and credentials below
- Request sample syllabuses if additional course information is needed
- Contact the Dual Enrollment Office at dualenrollment@volstate.edu to explore questions and next steps:
 - Course modality and location
 - Credentialing a high school faculty member to teach the dual enrollment course
 - Discuss course type (university parallel vs. vocational/career)
 - Discuss the purpose of the course and/or transferability of courses
- Communicate course selection with the high school counselor for master scheduling
- Ensure the required facilities, equipment, and software are available for in-person classes at the high school.

Regarding Course Instructors

- For most approved dual enrollment courses in each modality, Vol State provides the instructor.
- The availability of a qualified professor for the desired modality is one key factor in a course being approved and offered.
- Some high schools seek to have one of their high school instructors credentialed to teach the course for dual enrollment in person at the high school. To learn more about how high school teachers can be credentialed to teach Vol State courses for dual enrollment, [click here](#).



TDOE CTE Program of Study – Vol State Course Alignment Grid

- In the grid below, some CTE programs of study may have more than one course option listed.
- These courses have a curricular scope that aligns with one or more levels in the TDOE course descriptions.
- In discussion with Vol State regarding course availability and assigned instructor, each high school should evaluate:
 - Which Vol State course or courses they want to use in their CTE program study.
 - What level or levels they will assign these Vol State courses to in their CTE program of study.
 - Click on each course for more information.

TDOE Cluster	TDOE Program of Study	Vol State DE Course Options ¹
STEM	BioSTEM	BIOL 1110 General Biology I BIOL 1120 General Biology II CHEM 1110 General Chemistry I CHEM 1120 General Chemistry II CHEM 2010 Organic Chemistry I CHEM 2020 Organic Chemistry II MATH 1910 Calculus I MATH 1920 Calculus II
	Advanced STEM Applications	Courses listed above with BioSTEM PHYS 2110 Calculus-Based Physics I PHYS 2120 Calculus-Based Physics II

1. Advanced natural science courses have additional prerequisites such as minimum math scores and/or other natural science coursework with a minimum grade. Contact dualenrollment@volstate.edu for more information on specific classes.



Continuing Degree Options

These courses count toward one or more of the following STEM-related transfer degrees at Vol State among other degrees.

University Parallel, A.S. - Biology

This pathway is for students who plan to transfer to the university to complete a B.S. degree in biology, genetics, microbiology, or biotechnology. The B.S. degree in biology prepares graduates to continue their education in professional (dental, medical, pharmacy, physical therapy, optometry, veterinary) or graduate programs or to enter the workforce as research scientists in university or industrial laboratories, biological consultants, or as scientists in local, state, or federal agencies.

University Parallel, A.S. - Chemistry

This pathway is for students who will transfer to the university to continue studies leading to a bachelor's degree in chemistry. Because of the fundamental role it plays in every aspect of the world around us, chemistry is often called the 'Central Science'. A student majoring in chemistry has a deep commitment to understanding how our world exists and operates on a molecular level in accordance with the laws of nature. Chemistry is a very rigorous curriculum that involves physics and mathematics to help students understand the driving force of the chemical reaction. Chemistry students often gravitate to specific fields like organic, inorganic, physical, biochemistry, or materials chemistry.

University Parallel, A.S. - Mathematics and Science

This pathway is for students planning to transfer to a university to earn a bachelor's degree within the mathematics and science arena. This degree plan permits greater flexibility than other published curriculum guides may offer. Area of emphasis courses are chosen from university parallel courses within the Math and Science division including ASTR, BIOL, CHEM, ENGR (130 or higher), GEOL, ISCI, MATH (1720 or higher), PHYS, and/or PSCI. Courses can also be chosen from select Vocational courses after consultation with an advisor.



Vol State Course and Credential Alignment Grid

Courses	University Parallel, Associate of Science		
	Biology	Chemistry	Mathematics & Science
BIOL 1110	•		•
BIOL 1120	•		•
CHEM 1110	•	•	•
CHEM 1120	•	•	•
MATH 1910	•	•	•
MATH 1920		•	•
CHEM 2010	•	•	•
CHEM 2020	•	•	•
PHYS 2110		•	•
PHYS 2120		•	•



Links and Connections

- Email us at dualenrollment@volstate.edu with any questions
- To learn more about Vol State credential types (differences between AS, AA, AAS, Technical Certificate) and course types, [click here](#).
- To learn more about Vol State course types and student eligibility, [click here](#).
- To learn more about how high school teachers can be credentialed to teach Vol State courses, [click here](#).