



School District

Agricultural Structures and Engineering

HS & Web Address

Minimum HS Graduation Requirements			PROGRAM OF STUDY MATRIX TEMPLATE: MIDDLE - HIGH SCHOOL – POSTSECONDARY					CTE Pathway Requirements	
	Grade	English	Math	Science	Social Studies	Additional Required Courses	Career & Technical Courses	Other Required or Elective Courses	
Student Success Plans outlining career goals should be utilized through the advisement process.									
Middle School	7	ELA 7	Math 7	Science 7	Social Studies 7		Exploring Agriscience 7	Electives	
	8	ELA 8	Math 8	Science 8	Social Studies 8		Exploring Agriscience 8	Electives	
Secondary	9	ELA 9	Algebra I	NGSS Aligned Physical/Integrated Science	Civics/Geography	World Language I	Fundamentals of Agricultural Structures and Engineering	<p>This matrix represents a <i>sample</i> program of study. The LEA's program of study <u>must</u> be reflective of local/state high school graduation requirements and college entrance requirements. This matrix should be reflective of the school's <u>course sequence</u> and requirements.</p>	
	10	ELA 10	Algebra II	NGSS Aligned Biology	Economics/Personal Finance	World Language II	Structural Systems in Agriculture		
	11	ELA 11	Geometry	NGSS Aligned Chemistry	US History	Physical Education (≥1 Credit)	Essential Skills in Agricultural Structures and Engineering		
	12	ELA 12	Pre-Calculus or Statistics	NGSS Aligned Earth/Physical Science		Health Education (≥ 0.5 Credit)			
Postsecondary	13	Students completing the Agricultural Structures and Engineering program of study will receive credentials for the NCCER Core Curriculum coursework (72 hours) and will be granted advanced placement in Delaware registered apprenticeship programs through the adult education divisions of the New Castle County, Polytech, and Sussex Technical systems. Qualifying apprenticeable trades include: carpentry, construction laborer, electrician, masonry, plumbing, and pipe fitting.						All programs of study should meet the students' career goals with regard to required degrees and/or certifications. Required courses will	
	14	The Department of Education is currently negotiating articulation agreements with Delaware Technical Community College (DTCC).							
	15	Continue courses in the area of specialization.							

16				vary by PS institution.
Additional Learning Opportunities				
Early Career Opportunities:	Early College Opportunities:	Industry Recognized Certifications/Licenses:	Student Organization:	
<input type="checkbox"/> Cooperative Education <input type="checkbox"/> Internship <input checked="" type="checkbox"/> Pre-Apprenticeship <u>Students completing the program of study will receive credentials for the NCCER Core Curriculum coursework (72 hours) and will be granted advanced placement in Delaware registered apprenticeship programs through the adult education divisions of the New Castle County, Polytech, and Sussex Technical systems. Qualifying apprenticeable trades include: carpentry, construction laborer, electrician, masonry, plumbing, and pipe fitting.</u> <input checked="" type="checkbox"/> Other: <u>Supervised Agriculture Experience (SAE) program</u>	<input type="checkbox"/> Dual Enrollment <input type="checkbox"/> Advanced Placement <input checked="" type="checkbox"/> Articulated Credit <u>DTCC: In Progress</u> <input checked="" type="checkbox"/> Pre-Apprenticeship <u>Students completing the program of study will receive credentials for the NCCER Core Curriculum coursework (72 hours) and will be granted advanced placement in Delaware registered apprenticeship programs through the adult education divisions of the New Castle County, Polytech, and Sussex Technical systems. Qualifying apprenticeable trades include: carpentry, construction laborer, electrician, masonry, plumbing, and pipe fitting.</u> <input type="checkbox"/> Other:	<input checked="" type="checkbox"/> Certification/License <u>NCCER Credentialed Craft Professional's Training – Core Curriculum</u> <input checked="" type="checkbox"/> Certification/License <u>OSHA 10 Hour Training for Construction</u>	<input checked="" type="checkbox"/> FFA	

Sample Careers By Educational Level			
Employment Opportunities (Upon Completion of HS Pathway)	Technical Training or Associate Degree	Bachelor's Degree	Master's Degree or Above
*Carpenter Cement Masons and Concrete Finishers Drywall and Ceiling Tile Installers *Operating Engineers and Other Construction Equipment Operators Cabinetmakers and Bench Carpenters *Construction and Building Inspectors Occupational Health and Safety Technicians Structural Iron and Steel Workers	Electricians *First-Line Supervisors of Construction Trades Heating, Air Conditioning, and Refrigeration Mechanics and Installers Plumbers, Pipefitters, and Steamfitters Welders, Cutters, Solderers, and Brazers	Agricultural Engineers Agricultural Inspectors Construction Managers Career/technical education teachers, secondary school Electrical Engineers Materials Engineers Occupational health and safety specialists	Farm and Home Management Advisors Agricultural Sciences Teachers, Postsecondary Engineering Teachers, Postsecondary

*May require higher education depending on job responsibilities.

Feeder Middle School(s):

Colleges/Universities and Articulated Credit Agreements:

The Department of Education is currently negotiating articulation agreements with Delaware Technical Community College (DTCC).

LEA Additional Graduation Requirements: