



## School District

# Agricultural Power 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 Power 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 <u>local/state</u> high school graduation requirements and college entrance requirements.</p> <p>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	Agricultural Welding and Fabrication		
	11	ELA 11	Geometry	NGSS Aligned Chemistry	US History	Physical Education (≥1 Credit)	Power and Mechanical Systems		
	12	ELA 12	Pre-Calculus or Statistics	NGSS Aligned Earth/Physical Science		Health Education (≥ 0.5 Credit)			
Postsecondary	13	Students completing the Agricultural Power 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: maintenance mechanic, iron worker, machinist, pipe welding, sheet metal, welding, mechanic, and metal fabrication.						All programs of study should meet the students' career goals with regard to required degrees and/or certifications. Required courses will vary by PS institution.	
	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								
<b>Additional Learning Opportunities</b>									

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"/> 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: maintenance mechanic, iron worker, machinist, pipe welding, sheet metal, welding, mechanic, and metal fabrication.</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
Assemblers and Fabricators, all other Construction and Building Inspectors Control and Valve Installers and Repairers Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic First-line Supervisors of Mechanics, Installers, and Repairers Industrial Machinery Mechanics Machinists Mobile Heavy Equipment Mechanics Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	Electrical and Electronics Engineering Technicians Engineering Technicians, except Drafters, all other Electrical and Electronics Repairers, Commercial and Industrial Equipment	Agricultural Engineers Agricultural Inspectors Career/technical Education Teachers, Secondary School Construction Managers Electrical Engineers Industrial 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:**