

Delaware Department of Education CTE & STEM Office 401 Federal Street, Suite 256 Dover, DE 19901

Phone: 302.735.4015

Submit via email to: CTE.STEM@doe.k12.de.us

# **DELAWARE CTE PROGRAM OF STUDY APPLICATION**

PERMITTING CITE I ROCKINIO CI STODI ALI ELCATION			
Local Education Agency (LEA):			
School(s) where the Program of	Study will be Located:	Program of Study Start Date:	
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LEA CTE Coordinator Name: Phone:		E-Mail Address:	
Career Cluster Title:	Career Pathway Title:	Program of Study Title:	
Agriculture, Food, and Natural	Plant Systems	Plant Science	
Resources	Traine dysterns	Traine Science	
CTE Program of Study Course Ti	tles & Seguence:	<u> </u>	
Foundations of Plant Science	•		
2. Plant and Soil Systems (PSS)	·		
3. Plant Systems Management			
CTE Program of Study Request:	, , ,		
	Study		
☐ Local CTE Program of Study	•		
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CTE Program of Study approval a	and funding is contingent upon th	le following assurances:	
		DE Admin. 525, Requirements for Career	
		an for the Carl D. Perkins Career and	
Technical Education Act of 2	_		
2. The LEA will submit CTE pro			
·		ticipate in program specific professional	
learning;			
4. The LEA will convene and er	ngage a program advisory commit	tee for the purposes of program	
development, implementati	on, and continuous improvement	<del>;</del> ;	
5. All students have equal acce			
6. Career and Technical Studer	nt Organizations are integral comp	ponents of the program of study;	
7. The LEA will maintain safe fa	acilities and equipment aligned w	ith the program of study goals; and	
8. A process for continuous im	provement has been established,	which includes a model of evaluation	
and program improvement.			
LEA CTE Coordinator Signature:		Date:	
LEA Chief School Officer Signature: Date:			

Complete the list of program advisory con	nmittee members. Program of study representatives should
include, but are not limited to: CTE and ac	ademic teachers, CTE/curriculum district coordinators,
school counselors, business and industry r	representatives, labor representatives, and post-secondary
partners. Community stakeholders includi	ng parents and students can also be considered. Attach
additional information if applicable.	
Name:	Title:
Affiliation:	
Address:	
Address.	
Phone:	E-Mail:
Area of Expertise:	
Representing:	
Business/Industry	
☐ Secondary Education	
Post-Secondary Education	
☐ Community/Other	
Name:	Title:
	Title:
Name: Affiliation:	Title:
Affiliation:	Title:
	Title:
Affiliation:	Title:
Affiliation: Address:	
Affiliation: Address:	
Affiliation:  Address:  Phone:  Area of Expertise:	
Affiliation:  Address:  Phone:  Area of Expertise:  Representing:	
Affiliation:  Address:  Phone:  Area of Expertise:  Representing:  Business/Industry	
Affiliation:  Address:  Phone:  Area of Expertise:  Representing:  Business/Industry  Secondary Education	
Affiliation:  Address:  Phone:  Area of Expertise:  Representing:  Business/Industry  Secondary Education  Post-Secondary Education	
Affiliation:  Address:  Phone:  Area of Expertise:  Representing:  Business/Industry  Secondary Education	
Affiliation:  Address:  Phone:  Area of Expertise:  Representing:  Business/Industry  Secondary Education  Post-Secondary Education	
Affiliation:  Address:  Phone:  Area of Expertise:  Representing:  Business/Industry  Secondary Education Post-Secondary Education Community/Other  Name:	E-Mail:
Affiliation:  Address:  Phone:  Area of Expertise:  Representing:  Business/Industry  Secondary Education  Post-Secondary Education  Community/Other	E-Mail:

Addres	ss:	
Phone:		E-Mail:
Area of	f Expertise:	
Repres	enting:	
	Business/Industry	
	Secondary Education	
	Post-Secondary Education	
	Community/Other	
Name:		Title:
Affiliat	ion:	
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Phone:	:	E-Mail:
Area of	f Expertise:	
Repres	enting:	
	Business/Industry	
	Secondary Education	
	Post-Secondary Education	
	Community/Other	
Name:		Title:
Affiliat	ion:	
Addres	SS:	
Phone:	:	E-Mail:
Area of	f Expertise:	
Repres	enting:	
	Business/Industry	
	Secondary Education	
	Post-Secondary Education	
	Community/Other	

Certify that a labor market needs analysis has been completed for the proposed CTE program of study. Attach the Labor Market Information (LMI) Review document.

Access the Labor Market Information (LMI) Review document.

The LEA certifies that regional, state, and local labor market data have been reviewed to assure a demand exists for the POS occupations and that the number of POS completers will not significantly exceed this demand. Department of Labor data are available and/or documented. Supporting evidence of supply and demand is submitted with this proposal.

No data exist for POS due to a unique labor market demand. Supporting evidence of demand is submitted with this proposal. Evidence may include, but is not limited to: real-time labor market information, documentation of national, regional, state, or local labor trends, or letters from employers or workforce agencies documenting projected employment specific to the career

List the academic, technical, and workplace skills and knowledge used to develop the program of study.

#### Title and source of academic standards:

### Common Core State Standards (CCSS)

pathway.

The Common Core State Standards (CCSS) are national standards that set clear college- and career-ready expectations for kindergarten through 12th grade in English language arts/literacy and Mathematics. The standards help to ensure that students graduating from high school are prepared to take credit bearing introductory courses in two- or four-year college programs and enter the workforce. The standards were developed by the nation's governors and education commissioners, through their representative organizations, the National Governors Association Center for Best Practices (NGA) and the Council of Chief State School Officers (CCSSO). Teachers, parents, school administrators, and experts from across the country provided input into the development of the standards. The implementation of the Common Core, including how the standards are taught, the curriculum developed, and the materials used to support teachers as they help students reach the standards, is led entirely at the state and local levels. For more information on CCSS, please visit the link above.

#### Next Generation Science Standards (NGSS)

The Next Generation Science Standards (NGSS) are national standards for science that lay out the disciplinary core ideas, science and engineering practices, as well as crosscutting concepts that students should master in preparation for college and careers. The standards were developed through a state-led effort that was managed by Achieve. The development of the NGSS involved the National Research Council (NRC), the National Science Teachers Association (NSTA), the American Association for the Advancement of Science (AAAS), and other critical partners such as K–12 teachers, state science and policy staff, higher education faculty, scientists, engineers, cognitive scientists, and business leaders. For more information on the NGSS, please visit the link above.

#### Title and source of technical skill standards:

# Agriculture, Food, and Natural Resources (AFNR) Career Cluster Content Standards

These standards are intended to shape the design of an agricultural education program including:

1) Classroom and laboratory instruction; 2) Work-based learning experiences such as Supervised Agricultural Experience (SAE) Programs and internships; and 3) Career and Technical Student Organization (CTSO) experiences through organizations such as the National FFA Organization. For more information on the AFNR standards, please visit the link above.

## Title and source of workplace or other skill standards, as applicable:

### Common Career Technical Core (CCTC)

The Common Career Technical Core (CCTC) are national standards for Career & Technical Education (CTE) that help inform the establishment of state standards and/or programs of study. The CCTC were developed by educators, school administrators, representatives from business and industry, faculty from higher education, as well as workforce and labor markets economists. The CCTC includes a set of standards for each of the sixteen (16) Career Clusters and the corresponding Career Pathways that help to define what students should know and be able to do after completing instruction in the Plant Science program of study. Within the Plant Science program of study, the CCTC standards for the Agriculture, Food, and Natural Resource (AFNR) Career Cluster have been embedded in each course. The program has students apply the CCTC AFNR standards, specifically the Plant Systems Career Pathway standards. For more information on the CCTC, please visit the link above.

## Career Ready Practices (CRP)

The Career Ready Practices (CRP) are a component of the CCTC framework and includes twelve (12) statements that address the knowledge, skills, and dispositions that are important to becoming career ready. The CRP describes the career-ready skills that educators should seek to develop in their students. These practices are not exclusive to a Career Pathway, program of study, discipline, or level of education and should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a career pathway. Within the Plant Science program of study, the CRP statements are embedded throughout the program to ensure students display the appropriate workplace and soft skills required to be successful in a career. For more information on the CRP, please visit the link above.

### The National FFA Organization

The National FFA Organization (FFA) develops students' potential for premier leadership, personal growth, and career success through agricultural education. FFA instruction focuses on: developing competent and assertive agricultural leaders; increasing awareness of the global and technological importance of agriculture and its contribution to our well-being; strengthening the confidence of agricultural students in themselves and their work; promoting the intelligent choice and establishment of an agricultural career; encouraging achievement in supervised agricultural experience programs; encouraging wise management of economic, environmental and human resources of the community; developing interpersonal skills in teamwork, communications, human relations and social interaction; building character and promotes citizenship, volunteerism and

patriotism; promoting cooperation and cooperative attitudes among all people; promoting healthy lifestyles; encouraging excellence in scholarship.

Identify CTE program of study early career opportunities, industry-recognized certifications and licenses, options for early college credit, two- and four-year degree and certification program alignment, and the technical skill attainment measures for the program of study. *Attach articulation/dual enrollment agreement(s)*.

Describe early career opportunities (i.e. work-based learning experiences and industry-mentored projects):

The Plant Science program of study prepares students for a variety of careers in the following areas: agronomy, ornamental horticulture, biotechnology, forestry, soil science, and turf management. Local business partners and agencies work with educators by serving on advisory boards and as mentors to provide a real-world connection to Plant Systems coursework. Work-based learning experiences and industry-mentored projects are included in each course and will be reviewed with the LEA Program Advisory Council (PAC) to further identify opportunities to engage the community.

The Supervised Agriculture Experience (SAE) program provides students with the opportunity to consider multiple careers and occupations, demonstrate workplace behavior, develop skills within the plant systems, and apply academic and occupational skills in the workplace or a simulated workplace environment. Supervised Agriculture Experience (SAE) programs are classified in six different categories: Ownership/Entrepreneurship, Placement/Internship, Research, Exploratory, School-Based Enterprise, or Service Learning.

List industry-recognized certifications and/or licenses, as appropriate (include the partner organization and credential):

#### Pesticide Applicator Certification – Private Applicators

The Pesticide Applicators Certification – Private Applicators Certification enables individuals to purchase and apply "Restricted Use" pesticides, produce an agricultural commodity, and apply pesticides on their own land or the land of their employer.

Describe early college credit options (i.e. advanced placement, dual enrollment, transcripted and/or articulated credit, credit by exam, pre-apprenticeship, other) and options for two- and four-year degree and/or certification program alignment (attach articulation/dual enrollment agreement). The partner organization and hours of credit earned should be included, as applicable:

The Department of Education is currently negotiating articulation agreements with Delaware Technical Community College, Delaware State University, and the University of Delaware.

List technical skill attainment measures for the program of study (i.e. industry recognized certification or license, advanced placement, dual enrollment, transcripted and/or articulated credit. dual enrollment. credit by exam):

$\boxtimes$	Certification/credentialing exam (specify): Pesticide Applicator Certification – Private Applicators		
	Licensing exam (specify):		
	Nationally recognized exam (specify):		

$\boxtimes$	Advanced standing (specify):
	Delaware Technical Community College (DTCC) - TBD
	Delaware State University (DSU) - TBD
	University of Delaware (UD) - TBD
	Other (specify):

Provide a CTE program of study overview that broadly describes the program and student expectations. Identify end-of-program assessment(s) and opportunities for students to participate in early college and early career experiences. List each course title in the CTE program of study. Provide an overview of each course and define what students should know and be able to demonstrate upon completion of each level. Identify appropriate end-of-course assessment(s).

### **CTE Program of Study Overview:**

The Plant Science program of study is a three (3) course Career & Technical Education (CTE) instructional program designed to provide students with knowledge of plant growth and reproduction, as well as the use of plants for food, fiber, and ornamental purposes. The program prepares students for a variety of careers in: agronomy, ornamental horticulture, biotechnology, forestry, soil science, and turf management.

- Fundamentals of Plant Science (FPS) explores the plant industries and food system of the United States in order to foster an understanding of the steps involved in growing crops for food, as well as plants for ornamental and aesthetic purposes. Students study the major characteristics of plant life, plant structures and functions, nutrient needs of plants, fundamentals of soil science, water management, cultural practices, pest management, and explore career options in the horticulture industry through classroom and laboratory instruction. Students are introduced to the foundational leadership skills, responsibility, and cooperation needed to be a successful and productive citizen through a school-based agricultural education three-component model which includes FFA activities, Supervised Agricultural Experience programs, and career and leadership development events.
- Plant & Soil Systems (PSS) enables students to build on the knowledge and experiences gained fundamentals of plant and soil science. Students apply knowledge and concepts of plant science, soil science, water management, pest management, and various crop production characteristics through hands on laboratory and experiential learning. PSS uses a combination of classroom and laboratory instruction that includes land labs, greenhouses, landscape beds, floral production, and hydroponics. Students develop leadership skills, increase levels of responsibility, and engage in cooperative activities through FFA activities, Supervised Agricultural Experience programs, and career and leadership development events through a school-based three-component agricultural education model.
- Plants Systems Management & Sustainability (PSMS) enables students to apply principles of horticulture production and facility maintenance and design. Students learn soil conservation and land management practices, as well as concepts related to integrated pest management and how

to properly use and apply pesticides, as well as principles of business management and record keeping. Students explore global economic systems, sustainability of plant life, and the multifaceted role plants play in sustaining and improving the quality of life. Students apply skills gained through Supervised Agricultural Experience programs, FFA leadership activities, and career and leadership development events to better serve the community through a school-based three-component agricultural education model..

	component agreement or account medicin		
Enc	End-of-Program Assessment(s):		
$\boxtimes$	Certification/credentialing exam (specify): Pesticide Applicator Certification – Private Applicators		
	Licensing exam (specify):		
	Nationally recognized exam (specify):		
	Other (specify):		
Coı	urse title:		
Fou	indations of Plant Science (FPS)		

# Course description (include prerequisites):

Fundamentals of Plant Science (FPS) explores the plant industries and food system of the United States in order to foster an understanding of the steps involved in growing crops for food, as well as plants for ornamental and aesthetic purposes. Students study the major characteristics of plant life, plant structures and functions, nutrient needs of plants, fundamentals of soil science, water management, cultural practices, pest management, and explore career options in the horticulture industry through classroom and laboratory instruction. Students are introduced to the foundational leadership skills, responsibility, and cooperation needed to be a successful and productive citizen through a school-based agricultural education three-component model which includes FFA activities, Supervised Agricultural Experience programs, and career and leadership development events.

# Course knowledge and skills (what students will know and be able to do):

By the end of this course students will:

- 1. Differentiate between various components of the horticulture industry including health, safety, and environmental impacts as well as projected industry expansion and economic growth.
- 2. Identify and classify plants and describe plant anatomy and physiology in relation to plant production and management.
- 3. Determine and explain the influence of environmental factors such as climate conditions, light, temperature, air, water quality, and global location on seasonal plant growth.
- 4. Demonstrate plant propagation techniques based on current industry standards.
- 5. Describe the major components of growing media and explain how growing media supports plant growth.

6.	Identify the essential nutrients for plant growth and development, explain their major functions,
	and analyze the effects of nutrient deficiencies on specific plants or crops.
7.	Categorize plant pests, diseases, and disorders and assess pest control strategies associated
	with integrated pest management.
8.	Compare and contrast various agricultural production systems with USDA sustainable practice
	criteria and explore how innovative technologies assist in implementing best management
	practices.
9.	Explore career opportunities and skill development in agricultural fields including interpersonal
	relationships, effective communication, public speaking, goal setting, and job attainment
	techniques, through exposure to chapter, state, and national FFA leadership and career
	experiences.
10.	Discover opportunities within the FFA such as FFA degrees and awards, leadership experiences,
	and Career Development Events, by examining the history, structure, and mission of the
	National FFA Organization.
11.	Develop record keeping skills, goal setting and reflection, fiscal responsibility, and personal time
	management through the development and implementation of a Supervised Agricultural
	Experience (SAE).
Fnd	-of-Course Assessment(s):
	Teacher designed assessment
	LEA designed assessment
	Certification/credentialing exam (specify):
	Licensing exam (specify):
	Nationally recognized exam (specify):
	Other (specify): Supervised Agricultural Experience (SAE Program)
	Other (specify). Supervised Agricultural Experience (SAL Frogram)
Cou	rse title:
	nt & Soil Systems (PSS)
Cou	rse description (include prerequisites):
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	nt & Soil Systems (PSS) enables students to build on the knowledge and experiences gained
	damentals of plant and soil science. Students apply knowledge and concepts of plant science, soil
	nce, water management, pest management, and various crop production characteristics through ds on laboratory and experiential learning. PSS uses a combination of classroom and laboratory
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Plant & Soil Systems (PSS) enables students to build on the knowledge and experiences gained fundamentals of plant and soil science. Students apply knowledge and concepts of plant science, soil science, water management, pest management, and various crop production characteristics through hands on laboratory and experiential learning. PSS uses a combination of classroom and laboratory instruction that includes land labs, greenhouses, landscape beds, floral production, and hydroponics. Students develop leadership skills, increase levels of responsibility, and engage in cooperative activities through FFA activities, Supervised Agricultural Experience programs, and career and leadership development events through a school-based three-component agricultural education model.

Prerequisite: Fundamentals of Plant Science (FPS)

#### Course knowledge and skills (what students will know and be able to do):

By the end of this course students will:

- Employ scientific research processes and methods, collect and evaluate reliable data using appropriate tools and equipment, and utilize data driven results to justify a conclusion in various areas of plant systems.
- 2. Compare and contrast the potential risks and advantages associated with the use of biotechnology in plant breeding programs to improve genetics.
- 3. Research federal food labeling regulations; compare USDA approved classifications and describe impacts of food labeling regulations on plant production practices.
- 4. Explain how the physical qualities of soil influence plant growth and development and differentiate between land uses and capability classes.
- 5. Analyze nutrient needs of specific crops; calculate fertilizer formulations, and devise a plan to meet the nutrient needs of the plant.
- 6. Develop and implement a management plan for growing, maintaining, harvesting, and storing various horticultural crops.
- 7. Propagate plants by cuttings, division, separation, layering, budding, grafting, and micro propagation under the optimum conditions.
- 8. Assess pest management needs and demonstrate pesticide formulations, including organic and synthetic active ingredients and selection of pesticides to control specific pest problems and apply procedures for the safe handling, use, and storage of pesticides based on state and local regulations.
- 9. Use industry related hand held, power operated, and technology based tools and equipment, based on best practices within various plant industries.
- 10. Develop goals and design a plan to examine further career skill attainment in areas of effective communication, technical writing, content skill execution, and agricultural advocacy through advanced opportunities in chapter, state, and national FFA leadership and career development experiences.
- 11. Reflect and further develop recordkeeping, goal reflection, fiscal accountability, and time management skills; and assess and apply for advanced degrees through the continuation and advancement of a Supervised Agricultural Experience.

#### **End-of-Course Assessment(s):**

$\boxtimes$	Teacher designed assessment
	LEA designed assessment
	Certification/credentialing exam (specify):
	Licensing exam (specify):
	Nationally recognized exam (specify):
$\boxtimes$	Other (specify): Supervised Agricultural Experience (SAE Program)
Cou	rse title:
Plar	nt Systems Management & Sustainability (PSMS)
Cou	rse description (include prerequisites):
Plar	nts Systems Management & Sustainability (PSMS) enables students to apply principles of
hor	ticulture production and facility maintenance and design. Students learn soil conservation and
land	d management practices, as well as concepts related to integrated pest management and how to
pro	perly use and apply pesticides, as well as principles of business management and record keeping.
Stud	dents explore global economic systems, sustainability of plant life, and the multifaceted role plants
play	in sustaining and improving the quality of life. Students apply skills gained through Supervised
	icultural Experience programs, FFA leadership activities, and career and leadership development
	nts to better serve the community through a school-based three-component agricultural
edu	cation model.
	· · · · · · · · · · · · · · · · · · ·
	requisite: Plant and Soil Systems (PSS)
Cou	rse knowledge and skills (what students will know and be able to do):
Bv t	he end of this course students will:
1.	Analyze data, develop strategies, and complete a horticultural business plan and use sales and
	marketing principles to accomplish predetermined business objectives that are client or student
	driven for a various sized enterprises.
	•
2.	Assemble, interpret, and analyze financial information and reports to monitor horticultural
	business performance and support decision making (e.g., income statements, balance sheets,
	whole enterprise vs. partial budgets, cash flow analysis, inventory reports, break even analysis,
	return on investment, and taxes).
3.	Research, prepare, and defend plans for a plant systems enterprise that align with USDA
	sustainable practice criteria (e.g., greenhouse structures, agronomic land labs, landscapes, and
	hydroponic/aquaponic systems).
4.	Apply principles and elements of design (form, visual balance, color, rhythm, and proportion)

that form the basis of artistic impression within plant systems using various industry recognized

platforms (hand drawn landscape designs, floral designs, and CAD landscaping).

5. Evaluate and maintain plant designs such as landscapes and floral design work based on environmental conditions 6. Identify public policies and regulations regarding agricultural practices and demonstrate the necessary requirements needed to obtain industry certification or licensing (e.g., OSHA certification, nutrient management certification, and pesticide application licensing). 7. Utilize skills gained in areas of communication, writing, content skill execution, ethical decision making, and agricultural and personal advocacy through execution of the SAE and advanced opportunities in chapter, state, and national FFA leadership to apply for and earn upper level FFA Degrees, Awards and make college and career choices. **End-of-Course Assessment(s):** LEA designed assessment ☐ Certification/credentialing exam (specify): Licensing exam (specify): Nationally recognized exam (specify): ☐ Other (specify): Supervised Agricultural Experience (SAE Program) Identify the method of technical and academic curriculum development (adopted, adapted, or developed in accordance with guidance from the program advisory committee). POS technical and academic curriculum will be: Adopted (specify source): State Model Program Adapted (specify source): Developed locally (describe):

Provide valid teacher certification(s), candidate experience, pre-requisite and requisite licensure or certification requirement(s) for POS teachers.

#### POS teacher requirements include:

Other (specify):

- ☐ Teacher certification(s) (list): AgriScience Education or Skilled and Technical Sciences (STS) in Plant Systems
- Candidate experience (describe): Candidate may have experience in conducting research in breeding, physiology, production, yield, and management of crops and agricultural plants or trees, shrubs, and nursery stock, their growth in soils, and control of pests; studying the chemical, physical, biological, and mineralogical composition of soils as they relate to plant or crop growth; inspection of agricultural commodities, processing equipment, and facilities, and fish and logging operations to ensure compliance with regulations and laws governing health, quality, and safety; purchasing farm products either for further processing or resale; grading, sorting, or classifying unprocessed food and other agricultural products by size, weight, color, or condition. Candidates could also have experience in setting up, operating, and maintaining

	laboratory instruments and equipment, monitor experiments, make observations, and calculate
	and record results; analyzing organic substances, such as blood, food, and drugs; performing
	manual labor necessary to develop, maintain, or protect areas such as forests, forested areas,
	woodlands, wetlands, and rangelands through such activities as raising and transporting
	seedlings; combating insects, pests, and diseases harmful to plant life; or building structures to
	control water, erosion, and leaching of soil. For more information, please see the Bureau of
	Labor Statistics: Agricultural/Food Science and Miscellaneous Farm, Forestry and Conservation
	Workers.
	Pre-requisite professional licensure or certification requirement(s) (list):
	Requisite professional licensure or certification requirement(s) (list):
	Professional Licensure or Certification Credit Equivalency (list): Delaware Nutrient Management
	Certification (6 credit hours); Certified Nursery Professional Exam (3 credit hours); Delaware
	Master Gardeners Certification (6 credit hours)
	Other (describe):
List	t extended early career and college credit opportunities available during the student's senior year.
Dog	cument transition services, cooperative learning experiences, additional dual enrollment, or other.
Op	portunities for extended and accelerated learning include:
	Cooperative education (describe):
	Structured internship (describe):
	Dual enrollment (list):
	Advanced Placement (list):
	Transition services (describe):
	Other (describe):
Ind	licate the Career and Technical Student Organization (CTSO) affiliation by checking the appropriate
box	x.
$\boxtimes$	FFA
Cor	mplete the program of study matrix to demonstrate the alignment of academic and technical
	urses, culminating early career and/or early college experiences. Identify appropriate certification

Complete the program of study matrix to demonstrate the alignment of academic and technical courses, culminating early career and/or early college experiences. Identify appropriate certification and licensure options, opportunities for obtaining early college credit (courses with articulated or dual enrollment credit agreements should be appropriately designated within the matrix), the post-secondary program sequence, and potential career options. *Attach the Program of Study Matrix*.

Access the Program of Study Matrix.

The following section will be completed by staff from the Delaware Department of Education, CTE &			
<u> </u>	e LEA as part of the CTE program	of study approval process.	
Date Delaware CTE Program of	Study Application Received:		
Local Education Agency (LEA):		Program of Study Start Date:	
School(s):			
LEA CTE Coordinator Name:	Phone:	E-Mail Address:	
Career Cluster Title:	Career Pathway Title:	Program of Study Title:	
Agriculture, Food, and	Plant Systems / 1.02	Plant Science / 1.02607	
Natural Resources / 1	, ,	,	
CTE Program of Study Course T	itles & Sequence:		
4. Foundations of Plant Science	ce (FPS) / 1.02607011 / 2		
5. Plant and Soil Systems (PSS	) / 1.02607022 / 3		
6. Plant Systems Managemen	t & Sustainability (PSMS) / 1.026	07033 / 3	
CTE Concentrator/Completer C	Course Titles:		
Concentrator Course: Plant and	Soil Systems (PSS) / 1.02607022	<u>'</u>	
Completer Course: Plant System	ns Management & Sustainability	(PSMS) / 1.02607033	
CTE Program of Study Request	:		
State-model CTE Program or	f Study		
$\square$ Local CTE Program of Study			
CTE Program of Study Attachm	ents:		
☐ Labor Market Information (	LMI) Review;		
☐ Articulation/Dual Enrollment Agreement(s); and			
☐ Program of Study Matrix.			
DDOE CTE & STEM Director Sign	DDOE CTE & STEM Director Signature: Date:		
DDOC Chief Academic Officer Cignoture			
DDOE Chief Academic Officer Signature: Date:			