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**

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| LOCAL EDUCATION AGENCY INFORMATION  |
| **Local Education Agency (LEA):** |
| **School(s) where the Program of Study will be Located:** | **Program of Study Start Date:**  |
| **LEA CTE Coordinator Name:** **Phone:** **E-Mail Address:**  |
| **Career Cluster Title:**Agriculture, Food, and Natural Resources  | **Career Pathway Title:**Animal Systems  | **Program of Study Title:**Animal Science & Management  |
| **CTE Program of Study Course Titles & Sequence:**1. Foundations of Animal Science (FAS)
2. Growth and Development of Domestic Animals (GDDA)
3. Domestic Animal Management (DAM)
 |
| **CTE Program of Study Request:**[x]  State-model CTE Program of Study[ ]  Local CTE Program of Study |
| ASSURANCES & SIGNATURES |
| CTE Program of Study approval and funding is contingent upon the following assurances:1. The LEA will comply with Delaware Administrative Code, 14 DE Admin. 525, Requirements for Career and Technical Education Programs and the Delaware State Plan for the Carl D. Perkins Career and Technical Education Act of 2006;
2. The LEA will submit CTE program data as required by the Delaware Department of Education;
3. All teachers are certified in the appropriate CTE area and participate in program specific professional learning;
4. The LEA will convene and engage a program advisory committee for the purposes of program development, implementation, and continuous improvement;
5. All students have equal access to the program of study as well as early career/early college options;
6. Career and Technical Student Organizations are integral components of the program of study;
7. The LEA will maintain safe facilities and equipment aligned with the program of study goals; and
8. A process for continuous improvement has been established, which includes a model of evaluation and program improvement.
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| LEA CTE Coordinator Signature: Date: |
| LEA Chief School Officer Signature: Date: |

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| PROGRAM ADVISORY COMMITTEE MEMBER INFORMATION |
| Complete the list of program advisory committee members. Program of study representatives should include, but are not limited to: CTE and academic teachers, CTE/curriculum district coordinators, school counselors, business and industry representatives, labor representatives, and post-secondary partners. Community stakeholders including parents and students can also be considered. *Attach additional information if applicable*. |
| Name: Title:            |
| Affiliation:      |
| Address:      |
| Phone: E-Mail:            |
| Area of Expertise:      |
| Representing: [ ]  Business/Industry[ ]  Secondary Education[ ]  Post-Secondary Education[ ]  Community/Other |
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| Area of Expertise:      |
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| Area of Expertise:      |
| Representing: [ ]  Business/Industry[ ]  Secondary Education[ ]  Post-Secondary Education[ ]  Community/Other |
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| Affiliation:      |
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| Phone: E-Mail:            |
| Area of Expertise:      |
| Representing: [ ]  Business/Industry[ ]  Secondary Education[ ]  Post-Secondary Education[ ]  Community/Other |
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| LABOR MARKET DEMAND |
| Certify that a labor market needs analysis has been completed for the proposed CTE program of study. Attach the [*Labor Market Information (LMI) Review*](http://www.doe.k12.de.us/Page/435) document. |
| Access the [*Labor Market Information (LMI) Review*](http://www.doe.k12.de.us/Page/435) document. [x]  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 pathway.  |

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| ACADEMIC AND TECHNICAL SKILL STANDARDS |
| 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)](http://www.corestandards.org/) 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)](http://www.nextgenscience.org/) 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](https://www.ffa.org/thecouncil/afnr)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)](http://www.careertech.org/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 Animal Science & Management program of study. Within the Animal Science & Management 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 Animal Systems Career Pathway standards. For more information on the CCTC, please visit the link above.[Career Ready Practices (CRP)](http://www.careertech.org/career-ready-practices)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 Animal Science & Management 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](https://www.ffa.org/home)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.  |

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| EARLY CAREER AND EARLY COLLEGE OPPORTUNITIES |
| 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 Animal Science & Management program of study prepares students for a variety of careers in : agribusiness, agriscience education, animal genetics, animal nutrition, animal reproduction, extension educator, marine biology, wildlife biology, veterinary medicine, zoology, animal researcher, animal processor, production manager, artificial insemination technician, animal breeder, veterinary assistant/technician, wildlife manager, zoo animal specialist, animal rescue/animal control officer, and agriculture producer. Local business partners and agencies work with educators by serving on advisory boards and as mentors to provide a real-world connection to Animal 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 animal 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](https://agriculture.delaware.gov/pesticide-management/pesticide-applicator-certification/)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):**[x]  Certification/credentialing exam (specify): [Pesticide Applicator Certification – Private Applicators](https://agriculture.delaware.gov/pesticide-management/pesticide-applicator-certification/)[ ]  Licensing exam (specify):      [ ]  Nationally recognized exam (specify):      [x]  Advanced standing (specify):  Delaware Technical Community College (DTCC) - TBD Delaware State University (DSU) - TBD University of Delaware (UD) - TBD[ ]  Other (specify):       |

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| POS OVERVIEW, COURSE DESCRIPTIONS, END-OF-COURSE, AND PROGRAM ASSESSMENTS |
| 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 Animal Science & Management program is a three (3) course hands-on program of study that explores: animal production and management, physical restraint and handling, conducting health exams, evaluation of behavior, principles of genetics and reproduction, animal selection through evaluation, anatomy and physiology, animal nutrition, basic veterinary practices, global food systems, ethics of food animal production, and current agricultural issues in order to foster an understanding of the steps involved in producing and marketing products for consumers. Students practice decision-making and research skills through classroom instruction, laboratory activities, and practical experiences. The program prepares students for a variety of careers in: agribusiness, agriscience education, animal genetics, animal nutrition, animal reproduction, extension educator, marine biology, wildlife biology, veterinary medicine, zoology, animal researcher, animal processor, production manager, artificial insemination technician, animal breeder, veterinary assistant/technician, wildlife manager, zoo animal specialist, animal rescue/animal control officer, and agriculture producer. * **Foundations of Animal Science (FAS)** focuses on the fundamentals of animal science which include animal origin, domestication and uses, careers in the animal industry, animal safety and sanitation, ways animals help humans, taxonomy and breeds, basic nutrition and health, biosecurity principles and environmental conditions on animals and animal rights vs. welfare. 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.
* **Growth and Development of Domestic Animals (GDDA)** enables students to apply animal science principles including: biosecurity principles and environmental conditions on animals, scientific principles of anatomy, physiology and reproduction, nutrition, animal health and management, animal products and processing, laws and sustainable practices, and industry standards on the animal selection process. 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.
* **Domestic Animal Management (DAM)** enables students to demonstrate their mastery of the content covered in FSA and GDDA and apply their technical knowledge and skills in the field of animal agriculture. Students apply their mastery of biosecurity principles and environmental conditions on animals, global applications of animal agriculture, reproduction and genetics, animal nutrition, animal health care and evaluation, selection and marketing, and legal responsibilities through hands-on activities. 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.
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| **End-of-Program Assessment(s):**[ ]  Certification/credentialing exam (specify):[ ]  Licensing exam (specify):      [ ]  Nationally recognized exam (specify):      [x]  Other (specify): Teacher Developed Assessment   |
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| **Course title:**Foundations of Animal Science (FAS) |
| **Course description (include prerequisites):**Foundations of Animal Science (FAS)focuses on the fundamentals of animal science which include animal origin, domestication and uses, careers in the animal industry, animal safety and sanitation, ways animals help humans, taxonomy and breeds, basic nutrition and health, biosecurity principles and environmental conditions on animals and animal rights vs. welfare. 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. Research the origin, significance, distribution, and domestication of different animal species.
2. Explain the implications of animal welfare and animal rights for animal systems as they relate to both the producer and consumer of animal production.
3. Classify essential nutrients needed for animal growth; identify tools and equipment required to maintain animal health; and analyze essential nutrients role in growth and performance.
4. Differentiate between the types of facilities needed to house and produce animals safely and efficiently.
5. Distinguish common classification terms utilized in animal systems (e.g., external and internal body parts, maturity, mature male, immature female, animal products, breeds).
6. Compare a live animal to its optimal anatomical and physiological characteristics.
7. Summarize the importance of biosecurity to the animal industry at the local, state, national, and global levels.
8. Explain the effects of animal agriculture on the environment (e.g., waste disposal, carbon footprint, air quality, environmental efficiencies).
9. Describe the status as well as historical and scientific developments of different animal industries and summarize the structure, products, services and careers associated with each.
10. 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.
11. 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.
12. 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).
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| **End-of-Course Assessment(s):**[x]  Teacher designed assessment[ ]  LEA designed assessment[ ]  Certification/credentialing exam (specify):      [ ]  Licensing exam (specify):      [ ]  Nationally recognized exam (specify):      [x]  Other (specify): Supervised Agricultural Experience (SAE Program)     |
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| **Course title:**Growth and Development of Domestic Animals (GDDA) |
| **Course description (include prerequisites):**Growth and Development of Domestic Animals (GDDA) enables students to apply animal science principles including: biosecurity principles and environmental conditions on animals, scientific principles of anatomy, physiology and reproduction, nutrition, animal health and management, animal products and processing, laws and sustainable practices, and industry standards on the animal selection process. 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: Foundations of Animal Science (FAS) |
| **Course knowledge and skills (what students will know and be able to do):** By the end of this course students will: 1. Compare trends within the animal industry; discuss implications of trends on future developments within different animal industries; and predict how those trends will affect production practices and the environment.
2. Analyze the impact of animal production methods on end product qualities (e.g., price, sustainability, marketing, labeling, and animal welfare).
3. Analyze the local and global impact of sustainable animal agriculture practices on human and environmental systems.
4. Design programs that utilize animal welfare procedures that ensure safety and maintain low stress when moving and restraining animals.
5. Analyze consumer concerns with animal production practices relative to human health.
6. Differentiate between nutritional needs of animals in different growth stages and production systems (e.g., maintenance, gestation, natural, organic) and correlate a species’ nutritional needs to feedstuffs to meet those needs.
7. Analyze functions of major organs in the male and female reproductive systems; describe factors that lead to reproductive maturity; and evaluate reproduction problems that occur in animals.
8. Compare and contrast the use of genetically superior animals in the production of animals and animal products; demonstrate how to determine probability trait inheritance in animals; and analyze the processes of major reproductive management practices, including estrous synchronization, superovulation, flushing and embryo transfer.
9. Identify and summarize the general standards that must be met in facilities for animal production (e.g., environmental, zoning, construction, etc.) and analyze animal production facilities to determine if standards have been met.
10. Apply methods of sustainability in animal production and management.
11. Appraise and evaluate the economic value of animals for various applications in the agriculture industry; such as processing, breeding and genetic development, etc.
12. Compare and contrast animal cells, tissues, organs, body systems types, and functions among animal species.
13. Perform health-check evaluations on animals; conduct basic emergency response procedures related to animals; and identify and describe common illnesses and disorders of animals based on symptoms and problems caused by wounds, diseases, parasites and physiological disorders.
14. 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.
15. Reflect and further develop recordkeeping, goal reflection fiscal accountability, and time management skills, as well as assess and apply for advanced degrees through the continuation and advancement of a Supervised Agricultural Experience.
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| **End-of-Course Assessment(s):**[x]  Teacher designed assessment[ ]  LEA designed assessment[ ]  Certification/credentialing exam (specify):      [ ]  Licensing exam (specify):      [ ]  Nationally recognized exam (specify):      [x]  Other (specify): Supervised Agricultural Experience (SAE Program)        |
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| **Course title:**Domestic Animal Management (DAM) |
| **Course description (include prerequisites):**Domestic Animal Management (DAM)enables students to demonstrate their mastery of the content covered in FSA and GDDA and apply their technical knowledge and skills in the field of animal agriculture. Students apply their mastery of biosecurity principles and environmental conditions on animals, global applications of animal agriculture, reproduction and genetics, animal nutrition, animal health care and evaluation, selection and marketing, and legal responsibilities through hands-on activities. 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.Prerequisite: Growth and Development of Domestic Animals (GDDA) |
| **Course knowledge and skills (what students will know and be able to do):** By the end of this course students will: 1. Devise, implement, and evaluate safety procedures and plans for working with animals by species using animal behavior and responses and biosecurity measures.
2. Select, evaluate, and defend the use of sustainable practices in animal agriculture at local, national, and global levels.
3. Research, evaluate, and defend programs and management tools to assure the safety of animal products for consumption.
4. Select animal feeds based on nutritional requirements, using rations for maximum nutrition and optimal economic production.
5. Analyze information from a feed label and feeding directions to create a balanced feed ration.
6. Apply knowledge of anatomical and physiological characteristics of animals to make production and management decisions.
7. Evaluate and select animals to maximize performance on anatomical and physiological characteristics that affect health, growth, and reproduction.
8. Determine when treatment of common diseases, parasites, and physiological disorders of animals require professional care or can be treated by the animal caretaker.
9. Design and implement a health maintenance plan for animals in natural and confined environments.
10. Design and implement a disease and disorder prevention plan for animals in natural and confined environments.
11. Describe and demonstrate surgical and nonsurgical veterinary treatments and procedures to meet specific animal health care objectives.
12. Research and develop plans to establish favorable environmental conditions for animal growth and performance based on a variety of factors (e.g., economic feasibility, environmental sustainability, impact on animals)
13. Determine the global nature of animal agriculture and analyze the impact of international trade.
14. 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.
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| **End-of-Course Assessment(s):**[x]  Teacher designed assessment[ ]  LEA designed assessment[ ]  Certification/credentialing exam (specify):      [ ]  Licensing exam (specify):      [ ]  Nationally recognized exam (specify):      [x]  Other (specify): Supervised Agricultural Experience (SAE Program)       |

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| PROGRAM OF STUDY CURRICULUM |
| 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:**[x]  Adopted (specify source): State Model Program[ ]  Adapted (specify source):      [ ]  Developed locally (describe):      [ ]  Other (specify):       |

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| TEACHER CERTIFICATION |
| Provide valid teacher certification(s), candidate experience, pre-requisite and requisite licensure or certification requirement(s) for POS teachers. |
| **POS teacher requirements include:**[x]  Teacher certification(s) (list): AgriScience Education or Skilled and Technical Sciences (STS) in Animal Systems[x]  Candidate experience (describe): Candidate may have experience in conducting research in the genetics, nutrition, reproduction, growth, and development of domestic farm animals; 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; selecting and breeding animals according to their genealogy, characteristics, and offspring. For more information, please see the Bureau of Labor Statistics: Agricultural/Food Science, Miscellaneous Farm, Forestry and Conservation Workers, and Animal Husbandry.[ ]  Pre-requisite professional licensure or certification requirement(s) (list):      [ ]  Requisite professional licensure or certification requirement(s) (list):      [ ]  Professional Licensure or Certification Credit Equivalency (list): AVMA CVTEA – Veterinary Technician National Exam *(3 credit hours);* American Association for Laboratory Animal Science (AALAS) Technician Certification *(3 credit hours)*; Delaware Nutrient Management Certification *(6 credit hours);* [ ]  Other (describe):       |

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| VALUE-ADDED OPPORTUNITIES |
| List extended early career and college credit opportunities available during the student’s senior year. Document transition services, cooperative learning experiences, additional dual enrollment, or other.  |
| **Opportunities for extended and accelerated learning include:**[ ]  Cooperative education (describe):      [ ]  Structured internship (describe):      [ ]  Dual enrollment (list):      [ ]  Advanced Placement (list):      [ ]  Transition services (describe):      [ ]  Other (describe):       |

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| CAREER AND TECHNICAL STUDENT ORGANIZATIONS |
| Indicate the Career and Technical Student Organization (CTSO) affiliation by checking the appropriate box. |
| [x]  FFA |

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| PROGRAM OF STUDY MATRIX |
| 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](http://www.doe.k12.de.us/domain/384).  |

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| DEPARTMENT OF EDUCATION PROGRAM OF STUDY APPROVAL |
| The following section will be completed by staff from the Delaware Department of Education, CTE & STEM Office and reported to the LEA as part of the CTE program of study approval process. |
| **Date Delaware CTE Program of Study Application Received:**      |
| **Local Education Agency (LEA):**     **School(s):**      | **Program of Study Start Date:**      |
| **LEA CTE Coordinator Name:** **Phone:** **E-Mail Address:**                    |
| **Career Cluster Title:**Agriculture, Food, and Natural Resources / 1 | **Career Pathway Title:**Animal Systems / 1.03 | **Program of Study Title:**Animal Science & Management / 1.03602 |
| **CTE Program of Study Course Titles & Sequence:**1. Foundations of Animal Science (FAS) / 1.03602011 / 2
2. Growth and Development of Domestic Animals (GDDA) / 1.03602022 / 3
3. Domestic Animal Management (DAM) / 1.03602033 / 3
 |
| **CTE Concentrator/Completer Course Titles:**Concentrator Course: Growth and Development of Domestic Animals (GDDA) / 1.03602022Completer Course: Domestic Animal Management (DAM) / 1.03602033 |
| **CTE Program of Study Request:**[x]  State-model CTE Program of Study[ ]  Local CTE Program of Study |
| **CTE Program of Study Attachments:**[ ]  Labor Market Information (LMI) Review;[ ]  Articulation/Dual Enrollment Agreement(s); and[ ]  Program of Study Matrix. |
| DDOE CTE & STEM Director Signature: Date: |
| DDOE Chief Academic Officer Signature: Date: |