PLD Business and Marketing Pathways

	Accounting	E-Commerce	Management and Entrepreneurship
Description	This pathway generally prepares individuals to practice the profession of accounting and to perform related business functions. Includes instruction in accounting principles and theory, financial accounting, managerial accounting, cost accounting, budget control, tax accounting, legal aspects of accounting, auditing, reporting procedures, statement analysis, planning and consulting, business information systems, accounting research methods, professional standards and ethics, and applications to specific for-profit, public, and non-profit organizations.	This pathway focuses on the creation, execution, transmission, and evaluation of commercial messages in various media intended to promote and sell products, services, and brands; and that prepares individuals to function as advertising assistants, technicians, and managers. Includes instruction in advertising theory, marketing strategy, advertising design and production methods, campaign methods and techniques, media management, related principles of Intro to Management (Bus Man), and applicable technical and equipment skills.	This pathway generally prepares individuals to plan, organize, direct, and control the functions and processes of a firm or organization. Includes instruction in management theory, human resources management and behavior, accounting and other quantitative methods, purchasing and logistics, organization and production, marketing, and business decision-making.
Associated College Majors	Accounting Business Administration/Management Business Economics Finance International Business Management Information Systems	E-Commerce Business Administration/Management Management Information Systems Marketing Sales and Distribution Web Development	Business Administration/Management Business Economics Entrepreneurial Studies Hospitality Administration/Management Insurance Management Operations Management
Related Careers	Account Manager Accountant Appraiser Auditor Bank Teller Bookkeeper Federal Agent Forensic Accountant Investment Banker Loan Officer Money Manager Mortgage Broker Statistician Tax Preparer	Media Buyer Retail Buyer Salesperson Web Developer Webmaster Website Designer Comm. Specialist Sales Representative E-Business Consultant Economic Dev. Officer	Insurance Agent Insurance Claims Adjuster Property Manager B&B Proprietor Association Manager Entrepreneur Event Planner Hotel Manager Volunteer Manager
Courses	**Digital Literacy** **Microsoft Office Specialist** **Accounting & Finance Foundations** **Financial Management** **Adv. Accounting**	**Digital Literacy** **Microsoft Office Specialist** **Web Page Design** **Principles of Entrepreneurship**	**Business & Marketing Essentials** **Intro to Management** **Principles of Entrepreneurship** **Business or Marketing Internship or Co-op**
Certification Options	CTE EOP Accounting (ASK) - Concepts of Finance or (ASK)-Fundamental Business Concepts **PLUS** MOS: Excel, Word, PowerPoint	CTE EOP Marketing (ASK) – Fund. Marketing Concepts or (ASK)—Fund. Business Concepts **PLUS** MOS: Excel, Word, PowerPoint	CTE EOP Intro to Management (Bus Man) (ASK) – Fund. Business Concepts or (ASK)—Fund. Marketing Concepts

PLD Engineering Pathway

PLD Information Technology Pathway

	RED CENTER (Engineering Design)	Computer Science
Description	Dunbar created the RED Center (**R**esearch, **E**ngineering & **D**esign Center) for students interested in the various disciplines of engineering technology. The sequence of courses will provide students with the opportunity to develop critical thinking skills and understanding of engineering concepts. Students then apply these skills in conjunction with the multi-step engineering design process to solve real-world problems. Includes instruction in two-dimensional and/or three-dimensional engineering design software, solid modeling, and engineering animation to solve real-world problems.	The Computer Science Pathway courses focus on computer theory, computing problems and solutions, and design of computer systems and user-interfaces. The coursework will include instruction in the principles of computational science, computer development and programming and applications to a variety of end use situations.
Associated College Majors	Architecture Construction Management Civil Engineering Computer Engineering Computer Science Materials Engineering Mechanical Engineering Industrial Maintenance Electrical Engineering	Computer Science Electrical Engineering Mechanical Engineer Aerospace Engineer Computer Engineering Web Design Software Engineer Network Engineer Data Science Database Engineer System Analysis Sales and Marketing Human Resources Hardware development
Related Careers	Architect CAD Engineer CAD Technician/ Drafter Renovator Mold Designer Construction Management Industrial Designer Handling Designer Mechanical Engineer Engineering Tech Instructor Mechanical Designer	Computer Software Engineer Database Developer Computer Hardware Engineer Computer Network Specialist Computer Scientist Web Developer Information Security Analyst Computer Programmer IT Project Manager
Courses	**Engineering I** **Engineering II** **Civil Engineering** **Engineering Capstone** Elective: AP Comp Sci Principles OR AP Comp Sci A	**Digital Literacy** **AP Computer Science Principles** **AP Computer Science A** **Java Programming 2**
Certification Options	Autodesk Inventor Certified User Autodesk Revit Certified User	CTE EOP Computer Programming Microsoft Office Technology Associate: Java, JavaScript, Python

PLD Family & Consumer Science Pathways			
	Consumer & Family Services	**Early Childhood Education**	**Hospitality, Travel, Tourism & Recreation**
Description	The Consumer and Family Management pathway helps students develop skills associated with early career employment opportunities and rigorous education programs that prepare for this level of the career ladder. The knowledge and skills validated span across a broad range of Family and Consumer Sciences content areas and are central to career areas involving human services, consumer services/protection/advising, education and training as well as social and community services.	The Early Childhood Education pathway will address a skill set necessary for success in early childhood education so that individuals can teach students ranging in age from infancy through eight years (grade three), depending on the school system or state regulations. This pathway is targeted for individuals preparing for careers related to early childhood education, such as those associated with child care, teaching, community based children's programs, social services or counseling for children, and after-school programs.	The Hospitality, Travel, Tourism & Recreation pathway prepares individuals to provide services in the hospitality and leisure fields. Includes instruction in hospitality operations, customer sales, marketing techniques, and assistance operations and techniques, basic office management, retail sports, recreation equipment and food and beverage services.
Associated College Majors	Family & Consumer Sciences Education Foods, Nutrition, and Wellness Studies Human Services Psychology Social Work	Child Care Management Education Human Development and Family Studies Psychology Special Education	Hospitality Administration/Management Business Administration/Management Culinary Arts Hotel and Motel Management International Business Parks, Recreation, and Leisure Studies Professional Golf Management Tourism and Travel Management
Related Careers	Marriage and Family Therapist Family and Consumer Scientist Gerontologist Abuse/Crisis Counselor Personal Financial Planner	Early Childhood Educator Psychologist Nanny Pediatrician Midwife Child and Youth Worker	Airline Customer Service Agent Caterer Event Planner Restaurant/Hotel Manager Tour Guide Travel Agent
Courses	**Life Skill Essentials** **Foods & Nutrition** **Money Skills for Math** **Parenting/Early Life Span Development**	**Life Skill Essentials** **Parenting/Early Lifespan Development** **Child Development Services 1** **Child Development Services 2**	**Principles of Hospitality** **Foods & Nutrition** **Advanced Foods & Nutrition** **Principles of Entrepreneurship** **Co-op/Internship: Hospitality**
Certification Options	CTE EOP Consumer & Family Services	CTE EOP Early Childhood Education OR Commonwealth Childcare Credential, KY Early Care and Education Orientation Certificate, or Pediatric Abusive Head Trauma	(ASK) – Fundamental Marketing Concepts ServSafe Food Managers

Media Arts Pathways		
	Graphic Design	**Cinematography and Video Production**
Description	The Graphic Design pathway prepares students to apply skills that focus on the principles and techniques for effectively communicating ideas/information and packaging products to business and consumer audiences- both in digital and in other formats. Topics of study in this pathway include aesthetic meaning, appreciation and analysis; construction, development, processing, modeling, simulation and programming of interactive experiences; transmission, distribution and marketing; contextual, cultural and historical aspects and considerations.	The Cinematography and Video Production pathway prepares students to communicate through media. The pathway includes video technology and equipment operation, video production, video directing, video editing, video and audio technique, and multi-media production. The pathway prepares students to function as staff, producers, directors, and managers of media programming and media organizations. Topics of study in this pathway include writing and editing, media copyright, multimedia editing and publication of audio and moving images as well as distribution and marketing of media products.
Associated College Majors	Digital Media Graphic Design Digital Video and Audio Mobile Application & Web Design Fashion Design Sign Graphics Visual Communications	Journalism (broadcasting, online, sports, radio and photo) Communications Marketing Public Relations Animation and Digital Media
Related Careers	Advertising Account Executive Advertising Copywriter Art Director Film and Video Editor Graphic Designer Industrial/Product Designer Marketing Manager Multimedia Artist Sign Maker Visual Merchandiser	Broadcast Producer Broadcast On-Air Personality Film and TV Crew Film and TV Editor Online Media Editor Podcast Editor Photojournalist Public Relations Director Social Media Producer Radio/TV Producer
Courses	**Introduction to Media Arts** **Digital Imaging** **Advanced Production Design** **Media Arts Internship**	**Video Studio Fundamentals** **Studio Directing and Performance** **Advanced Studio Production** **Media Arts Internship**
Certification Options	CTE EOP Graphic Design Adobe Certified Associate: Illustrator, Photoshop, InDesign, Premiere Pro	CTE EOP Cinematography Adobe Certified Associate: Photoshop, Premiere Pro

Eastside Technical Center Pathways

Eastside Technical Center's mission is to prepare students for entry level technical occupations, two-year community colleges, two-year technical colleges and four-year universities. They serve students from all public high schools in Fayette, Jessamine, Scott, and Woodford Counties with career and technical offerings in automotive and transportation technology, cinematography and video/studio production, digital design & game development, fire & emergency services, law enforcement, and homeland security. *Please note that the courses and certifications listed below are suggested by the Kentucky Department of Education; course offerings and certifications may differ.*

	Digital Design & Game Development	Cinematography & Video Production	Automotive Technology
Description	The Digital Design and Game Development pathway courses provide students with a thorough understanding of techniques for designing advanced 3D games and simulations. The courses will cover 2D and 3D graphics, animation, character development, texturing, scripting, program design and coding, and game setup using state-of-the-art software development tools. Completing students will have developed the skills necessary to create 3D graphics and applications that can be used for games and simulations.	The Cinematography and Video Production pathway prepares students to communicate dramatic information, ideas, moods, and feelings through the making and producing of videos and cinematographic expression. The pathway includes the theory of video, video technology and equipment operation, video production, video directing, video editing, cinematographic art, video and audio technique, and multi-media production. The pathway prepares students to function as staff, producers, directors, and managers of media programming and media organizations.	Students become knowledgeable in the various systems of automotive to develop skills in troubleshooting. Performing preventive maintenance, and servicing and repairing automobiles. Areas of study are to ASE and industry specifications and include engines, electrical & electronic, brake systems, and steering & suspension.
Related Careers	IT Project Manager Computer Animator Game Design Analyst Website Designer Webmaster Web Developer Cartoonist Game Designer	Advertising Copywriter Audio-Visual Technician Broadcast Technician Director of Photography Radio/TV Program Director Film and TV Crew Director Photographer Photojournalist Film Editor Camera Operator	Automotive Engineer Service Manager Mechanical Engineering Tech Engineer
Courses	Game Design and Development Principles Introduction to Digital Game Graphics Adv. 3D Game Development Adv. Game Development and Publishing Introduction to Programming Computational Thinking IT Co-op or Internship	Introduction to Media Arts Video Studio Fundamentals Studio Directing and Performance Advanced Studio Production (Moving Images) Media Arts Co-op or Internship Media Arts Internship	Automotive Maintenance and Light Repair Lab Engine Repair Lab Climate Control Lab Automotive Transmission/Transaxle Lab Manual Drivetrains and Axles Lab Automotive Internship Precision Measurement Shop Management
Certification Options	CTE EOP Digital Design & Game Development CompTIA IT Fundamentals Microsoft Tech. Associate (multiple options) Adobe Certified Associate (multiple options) Autodesk (multiple options) Unity Certified Developer	CTE EOP Cinematography & Video Production Adobe Certified Associate (multiple options) Apple Certified Professional Final Cut	ASE Student Certification (multiple options) REC Foundation Pre-Engineering Certification

	Collision Repair Technology	Diesel Technology	NEW! Aeronautics and Aerospace
Description	From repairing small dents to rebuilding the bodies of wrecked or damaged vehicles, this program meets National Institute for Automotive Service Excellence (ASE) and current industry specifications and standards. Students are taught the types of materials used in filler compounds, the colors and chemical make-up of paints, design and installation of trim, cost estimation and preparation for finish work.	Students in diesel technology learn to repair and maintain heavy trucks, heavy equipment and diesel engines. Students develop skills in troubleshooting, preventative maintenance, repair and servicing of all vehicles and equipment that utilizes diesel power. Instruction is focused on preparing students for postsecondary opportunities or career placement within this high-tech, high-demand career field.	This pathway prepares individuals to apply technical knowledge into the first phase of aviation training leading to a commercial pilot license as well as the skills need to repair, service and maintain all aircraft and their components. Some of the areas studied include navigation of commercial and passenger aircraft, flight systems and controls, flight crew operations and procedures, and safety and traffic regulations. Students will also study how to repair/service and maintain aircraft engines, propellers, avionic instruments, layout and fabrication of sheet metal, fabric, parts, cables and hydraulic units. To satisfy FAA requirements, students must log hours and work with approved FAA rated Airframe and Powerplant Technicians or Inspection Aurthorized persons.
Related Careers	Autobody Repairer Automotive Painter Auto Detailer Automobile Recycler Automobile Salesperson Cost Estimator Warranty Clerk Service Manager Adjuster Appraiser	Diesel Technician Customer Service Rep Diesel Salesperson Transportation Inspector Service Manager Truck Driver Dispatcher Warranty Clerk	
Courses	Painting and Refinishing Lab Damage, Analysis, Estimating, and Customers Painting and Refinishing Intro to Collision Repair Industrial Safety Personal Financial Management Collision Repair Internship Special Projects III Collision Repair	Brakes (Diesel) Lab Basic Automotive Electricity Lab Special Problems I (Diesel) Electrical Systems for Diesel Lab Mechanical Concepts Preventative Maintenance Lab Intro to Diesel Engines Lab Diesel Engine and Repair Lab Steering & Suspension (Diesel)	
Certification Options	ASE Student Certification (multiple options)	ASE Student Certification (multiple options)	

Eastside Technical Center Pathways, continued

Eastside Technical Center's mission is to prepare students for entry level technical occupations, two-year community colleges, two-year technical colleges and four-year universities. They serve students from all public high schools in Fayette, Jessamine, Scott, and Woodford Counties with career and technical offerings in automotive and transportation technology, cinematography and video/studio production, digital design & game development, fire & emergency services, law enforcement, and homeland security. *Please note that the courses and certifications listed below are suggested by the Kentucky Department of Education; course offerings and certifications may differ.*

	Law Enforcement Services	Fire and Emergency Medical Services
Description	Law Enforcement Services prepares individuals to perform the duties of police and public security officers, including patrol and investigative activities, traffic control, crowd control and public relations, witness interviewing, evidence collection and management, basic crime prevention methods, weapon and equipment operation and maintenance, report preparation, communicating with the public, and other routine law enforcement responsibilities.	This pathway is intended to prepare students to enter post-secondary programs that will lead to a career in public service as a firefighter and emergency management technician. Course work includes physical training, introduction to firefighting equipment and use, fire behavior and combustion, fire investigation, fire protection system, and fire prevention.
Related Careers	Correctional Officer Crime Scene Investigator Criminologist Detective Police Officer Private Investigator Probation/Parole Officer Security Guard	Firefighter Fire Investigator Forest Firefighter
Courses	Introduction to Criminal Justice Law Enforcement Health and Well-Being for Law Enforcement Criminal Investigation Correctional Systems Basic Telecommunications Basic Security Services Introduction to Homeland Security Terrorism and Counterterrorism Operations Emergency Management	Introduction to Fire Service Firefighters Basic Skills I, II, and III Firefighters Intermediate Skills I and II Company Officer Development Special Topics in Fire Science Firefighting Advanced Skills I and II Co-Op (Fire Service/EMT) Internship (Fire Service/EMT)
Certification Options	National Academies of Emergency Dispatch (NAED) NOCTI—Criminal Justice—Advanced FEMA Certification Series First Responder State Certification	EMT—Basic National Certification First Responder State Certification Candidate Physical Ability Test (CPAT) National Academies of Emergency Dispatch (NAED) Kentucky Certified Firefighter FEMA Certification Series

Southside Technical Center Pathways

Southside offers technical training to high school students enrolled in the Fayette, Jessamine, Scott and Woodford County public school systems. Students spend half of their school day at their home school and the other half at Southside and can earn up to four elective credits in each program area per school year. After completing one year, students may enroll in a technical center program for a second year of advanced training. Programs include carpentry construction, electrical technology, electronics technology, advanced manufacturing, welding, culinary arts, pre-nursing and medical sciences.

	Advanced Integrated Manufacturing	Carpentry	Electronics
Description	Advanced Career's STEM curriculum - - *Integrated Production Technologies* - engages students in using innovative industry driven technologies to imagine and design new and improved products. Great entry-level jobs leading to challenging, high paying careers are available across the nation for students who have the academic and technical knowledge and skill sets to succeed. Students also need creativity and problem-solving abilities to coordinate information and analyze data.	Throughout the ages, skilled carpenters have always been in demand, and today the construction industry continues to seek, employ, and reward skilled Carpenters in the residential, commercial, and remodeling sectors. The Southside Carpentry program offers courses that will provide the hands-on experience needed to qualify students for a successful career in the construction industry.	Individuals trained as Electronics Engineering Technicians work with engineers and scientists to design, build, and maintain electrical and electronic equipment ranging from TV and radio to radar, sonar, and industrial and medical electronic measuring. Our curriculum includes electrical/electronics theory, reading electrical and electronic diagrams and schematics, the study of circuits, the use of electronic test equipment, and the diagnosis and repair of products that contain transistors, printed circuits, and integrated circuits. Students will also study home, auto, and industry security systems complete with installations.
Related Careers	Industrial Engineer Manufacturing Manager Manufacturing Worker Electronics Assembler Industrial Technician Quality Controller Woodworker	Carpenter Construction Manager Construction Laborer Tradesperson Cost Estimator	Electrical Engineer Electrical Engineering Tech Electrician
Courses	Adv. Technology for Design and Production Systems of Advanced Technology Mechatronic Systems for Adv. Production Production Technology	Introduction to Construction Ceiling and Roof Framing Floor and Wall Framing Site Layout and Foundation Interior and Exterior Finish Special Topics (Construction Carpentry)	Circuits I Circuits II Digital Electronics I Digital Electronics II
Certification Options	CTE EOP Engineering & Technology CTE EOP Manufacturing NOCTI CAD 1 Certificate Autodesk Certified User (multiple options) Certified Solid Works Associate MSSC Certified Production Technician MasterCAM CNC Certification REC Foundation Cert. (multiple options)	CTE EOP Construction NCCER (multiple options) TRACK Pre-apprentice Certification	CTE EOP Construction CCER (multiple options) REC Foundation Cert. (multiple options)

	Electrical Technology	Welding	Culinary Arts*
Description	Although today there are many definitions for the word "wired," skilled electricians will tell you that their world has been 'wired' for many generations, that their skills are in high demand, and that they are well paid for their professional services. Our varied courses in electricity will allow you to study and practice residential wiring, industrial electricity, and programmable logic controllers (PLCs). You'll learn how to install wiring and conduit, service motors, and much more.	Welding is the most common method of joining metal parts -- in vehicles, appliances, furniture, buildings, highways, bridges and more. Some say it is an art; others say it is a craft. Our program provides opportunities to master welding strategies including Shielded Metal Arc Welding (SMAW), Gas Tungsten Arc Welding (GTAW), Metal Inert Gas (MIG) and Tungsten Inert Gas (TIG) processes.	Our comprehensive program is popular with both male and female students, and our courses cover cooking methods and techniques, from basic to advanced. Our partnering with Sullivan University's high-profile culinary division allows our students to earn both high school and college credits for successful completion of the certification requirements.
Related Careers	Electrical Engineer Electrical Engineering Tech Construction Laborer Construction Manager Tradesperson Electrician	Combination Welder Welding Inspector (CWI) Welding Educator (CWE) Welding Engineer Structural Engineer Mechanical Engineer Pipe Welder Ironworker TIG Welder	Chef/Cook Baker Entrepreneur Food Inspector Butcher
Courses	Circuits I Circuits II Electrical Construction I Electrical Construction II	Cutting Processes Blueprint Reading for Welding Oxy-fuel Systems Gas Tungsten Arc Welding Metal Arc Welding	** Students must have successfully passed their culinary arts curriculum at the high school with a C or better as determined by our industry partner advisory board (FACS Essentials, Foods and Nutrition, Culinary Arts 1). Students must also attain a recommendation from their high school culinary arts instructor. This program is for students finishing the pathway and that have a sincere desire to become a Chef.*
Certification Options	CTE EOP Construction NCCER (multiple options) TRACK Pre-apprentice Certification	CTE EOP Welding AWS Certification (multiple options) KY Dept. of Transportation 3-G	CTE EOP Culinary & Food Services AAFCS Pre-PAC Culinary Arts ServSafe Food Managers Prostart Certificate of Achievement (COA)

Southside Technical Center Pathways, continued

Southside offers technical training to high school students enrolled in the Fayette, Jessamine, Scott and Woodford County public school systems. Students spend half of their school day at their home school and the other half at Southside and can earn up to four elective credits in each program area per school year. After completing one year, students may enroll in a technical center program for a second year of advanced training. Programs include carpentry construction, electrical technology, electronics technology, advanced manufacturing, welding, culinary arts, pre-nursing and medical sciences.

Health Science Pathways

Students Enrolled in the Health Sciences Program must have a 2.5 G.P.A. or higher and to remain in the program they must pass all of the health science courses offered with a C or better. In addition, students must provide immunization certificates and vaccinations verifications to the school; 3 Hepatitis B, 2 MMR, 2 Varicella or positive varicella titer, 1 TDAP, Current TB Skin Test (2 Step for MNA course), be legally eligible to work (MNA Course), and to certify as an SRNA they must maintain a 70% average on their exams (MNA course). Students are also recommended to take Advanced Anatomy at their home school.

	Medical Sciences	Pre-Nursing
Description	Housed in a high-tech computer lab, our broad-based Medical Sciences program is designed to develop and enhance an understanding of the roles and responsibilities of each health career major area. The courses introduce students to medical concepts that are relevant to all health care careers, such as infection control, communication, legal and bioethical issues, and anatomy & physiology. Upon successful completion of this courses, the student will be able to focus on a career major path and make informed decisions regarding choices for continuing education and/or employment. This program is an advanced training program that includes a practicum at local healthcare facilities. Therefore, it requires two full class periods, so the academic course requirements must be satisfied at your home school.	Millions of aging 'baby boomers' are requiring more health care services. The demand for trained professionals in this field is not only constant, but is escalating. State Registered Nurse Aides (SRNA) are being hired by hospitals, physicians' offices, nursing homes and clinics. Our nurse aide course is consistent with the Kentucky Medicaid Nurse Aide curriculum and offers professional instruction in the classroom, lab, and clinical areas. Students are prepared to take the state certification exam, become a SRNA, and obtain employment at the entry level of the nursing profession.
Related Careers	Diagnostic Medical Sonographer Medical Assistant Medical Lab Tech Nurse Radiologist	Licensed Practical Nurse Nurse Nurse Practitioner Nursing Assistant Physician's Assistant Doctor
Courses	Emergency Procedures Body Structures and Functions Medical Terminology Principles of Health Science Medical Laboratory Aide (Phlebotomist) EKG Technician Phlebotomist Pharmacy Technician	Medicaid Nurse Aid Medical Math Special Topics in Allied Health Coop Learning I
Certification Options	CTE EOP Allied Health NOCTI Health Care Core Certified EKG Technician Certified Phlebotomy Technician Certified Pharmacy Technician	CTE EOP Allied Health NOCTI Health Care Core State Registered Nursing Assistant (SRNA) Medicaid Nurse Aide (MNA)

Locust Trace AgriScience Center Pathways

Locust Trace AgriScience Center is the newest career and technical high school in Lexington, Kentucky with energy and environment being key factors in the facility design and agriculture being the educational focus. In addition to classroom space, Locust Trace AgriScience Center has an 82-acre working farm, a veterinary clinic (open for public use), an equine barn with show arena, a livestock barn, and community gardens. All courses discuss career options within agriculture. Students study in one of four pathways with Animal Sciences including a Generalist, Equine and Pre-Veterinary Options. Beginning Fall 2020, all courses at Locust Trace will be STUDENT FOCUSED and PROJECT BASED. Students will guide their own learning through the facilitation of Locust Trace's team of instructors. Students pursuing Locust Trace's program must be prepared to work both independently and as a member of a team. Students will learn how to monitor their own progress set their own goals and are entirely in charge of their own learning based upon their interests and career plans. As seniors, students will be prepared to find employment and/or internships in their area of specialization to prepare for college and career upon graduation. Students should begin taking agriculture classes NO LATER than their sophomore year in order to complete their program.

	Agribusiness Systems	Ag Power, Structural, Technical Systems	Animal Science Systems : Generalist
Description	This pathway prepares individuals for a variety of careers in agribusiness. Students will learn and apply skills such as finance, management, marketing strategies, business principles, inventory control, communication skills, and personnel management applicable to the agriculture industry. The Agribusiness systems focus at Locust Trace is primarily on the Equine Industry, but other opportunities are available based upon student interest.	This pathway is built on the application of concepts in engineering, hydraulics, pneumatics, electronics, power, structures, and controls to the field of agriculture. Students design agricultural structures as well as machinery and equipment, while utilizing safe practices of operation and maintenance.	This pathway encompasses all of our animal science courses including the Veterinary Assisting, Equine, Large Animal and Pre-Veterinary options. Students will learn breed specific information and skills for both small and large animals. Students will learn the basics of genetics, nutrition, reproduction, growth and development of animals as well as safe handling and responsible ownership.
Related Careers	Farm Manager Pet Store Manager Agricultural Real Estate Agent Farm Equipment Sales Manager Tack Shop Owner Jockey Agent Farm Marketing Specialist Agritourism Promoter and Developer	Agricultural Engineer Welder Farm Fencing/Construction Contractor Agricultural Irrigation Sales and Installation Industrial Maintenance Technician Heavy Equipment Technician Farm Equipment Technician Small Engine Mechanic	Zoologist Marine Biologist Livestock Farmer Feedlot Manager Herpetologist Aquaculture Farmer A.I. Technician/Animal Geneticist Livestock Nutritionist
Courses	Principles of Agriscience and Technology Agriscience Agriculture Communications Agribusiness/Farm Management Agriculture Sales and Marketing Agriculture Employability Skills Greenhouse Technology	Principles of Agriscience and Technology Agriscience Agriculture Construction Skills Small Power Equipment Agriculture Power and Machinery Operation Agriculture Structures and Designs Agribusiness/Farm Management	Principles of Agriscience and Technology Agriscience Animal Science Equine Science Veterinary Science Aquaculture Agribusiness/Farm Management
Certification Options	CTE EOP Exam for Agribusiness Systems	CTE EOP Ag Power, Structural, Tech Systems iCEV – Equipment and Engine Training Council Principles of Small Engine Technology AWS – Sense Certification (level 1) for Welding	CTE EOP Exam for Animal Science iCEV—Elanco Fundamentals of Animal Science iCEV – Elanco Veterinary Medical Applications
	Animal Science System: Equine Emphasis	**Animal Science: Pre-Veterinary Emphasis**	**Horticulture and Plant Sciences**
Description	Through the equestrian program, students learn the basics of handling, grooming and barn care for horses. You will learn how to identify disease vectors and monitor horses for health issues as well as how to train a horse for basic tasks. This is not a riding program; however, in retraining a horse, riding may be required. In addition to basic horsemanship, you will learn about all facets of the industry and what it takes to go straight to work or be prepared for a two or four-year degree in Equine Science	The Pre-Veterinary program will prepare students to work with small animals in a clinical setting. Students will learn basic animal handling skills that can be a stepping-stone into their pursuit of a Pre-Veterinary program in college. This program can also be a way to develop small animal skills to prepare for a career in other areas such as boarding, grooming, and training of small animals that students can begin right out of high school.	This pathway has everything you ever wanted to know about plants including the scientific principles that underlie the breeding, cultivation, and production of agricultural plants, and the production, processing and distribution of agricultural plant products. Students learn a wide variety of applications including large and small production, marketing and sales of plant products, soil development and land evaluation and use.
Related Careers	Equine Assisted Therapist Horse Farm Barn Manager Farrier Equine Dental Technician Bloodstock Agent Mounted Police Officer Riding Instructor Racing Steward	Veterinary Assisting Veterinary Technologist Wildlife Rehabilitator Large and Small Animal Veterinarian Kennel Owner / Manager Animal Groomer / Trainer Veterinary Pharmaceutical Sales Manager Veterinary Practice Manager	Sports Turf Manager Agronomist Arborist Hemp Farmer Floral Designer Landscape Architect Nursery/Greenhouse Grower Environmental Scientist
Courses	Principles of Agriscience and Technology Agriscience Equine Science Agriculture Employability Skills (Equine Level 2) Agriculture Sales & Marketing (Equine Level 3) Animal Science Veterinary Science	Principles of Agriscience and Technology Agriscience Animal Science Small Animal Technology (Vet Assisting 1) Animal Technology (Vet Assisting 2) Equine Science Veterinary Science	Principles of Agriscience and Technology Agriscience Intro to Greenhouse and Crop Production Floriculture/Floral Design Landscaping/Turf Management Greenhouse Technology Agribusiness/Farm Management
Certification Options	CTE EOP Exam for Animal Science iCEV—Elanco Fundamentals of Animal Science iCEV – Elanco Veterinary Medical Applications	NAVTA—Veterinary Assisting Certification CTE End Of Program Exam for Animal Science iCEV—Elanco Fundamentals of Animal Science iCEV – Elanco Veterinary Medical Applications	CTE EOP Exam for Horticulture iCEV—Bayer Crop and Plant Science KY Dept. of Agriculture Pesticide Operator Certification – Agricultural Pests 1A