DCTS
Delaware County Technical Schools

"Preparing Today's Students for Tomorrow's Opportunities"

2007-2008
COURSE CATALOG

DCTS

Delaware County Technical Schools

Contents

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Delaware County Technical Schools have two locations, Aston Campus and Folcroft Campus. Students from the fifteen (15) area school districts have the opportunity to enhance their educational program with career and technical experiences that are directly connected to the real world. Business and Industry members review and update the career and technical education (CTE) programs offered by DCTS on a yearly basis.

University and College Opportunities

For students who are interested in continuing their education or training upon graduation, the Delaware County Technical Schools have developed written agreements with various post-secondary institutions including Drexel University, Delaware County Community College, Pennsylvania College of Technology, Pennsylvania Institute of Technology, Northampton County Community College, CHI Institute, Lincoln Technical Institute, Ohio Technical College, Harcum College, Culinary Institute of America, Johnson and Wales University, and Camden County Community College.

Articulation Agreements

Articulation Agreements are reciprocal agreements that link high school programs with one or two-year certificate and degree programs at the post-secondary level. Students who enroll in specific courses at DCTS will have the opportunity to begin their post-secondary education while still in high school. Many of these one and two year programs are articulated with four year institutions, which allow for a seamless transition into a four year degree program.

Dual Enrollment

Dual Enrollment programs allow qualifying students to be enrolled both at DCTS and Delaware County Community College simultaneously. Students have all campus privileges. Students who enroll in specific programs at DCTS will begin their post-high school education having earned the following opportunities:

* Advanced credits
* Guaranteed admission
* Advanced placement
* Credit-by-examination

* Credit on transcripts
* Exemption from taking certain classes
* No charge for certain classes
* Campus service

Tech Prep

Tech Prep is a national program designed to prepare students to enter specific programs of study. It is career preparation through articulation and advanced placement. The Tech Prep programs of study focus on academic and technical preparation that combine two years of secondary education with two or more years of post-secondary education. The Tech Prep Components are as follows:

* A rigorous education program combining math, science and communications with specific advanced technical skills in a mechanical and/or specific area.
* A non-duplicative sequence of courses combining at least the final two years of secondary school with two years of post-secondary education.
* A team of secondary and post-secondary faculty in partnership with local business employers.
* A smooth transition between secondary schools with no duplication of courses or loss of credits.
* A comprehensive career guidance program, as well as the provisions of assistance for guidance personnel and training for secondary and post-secondary faculty and staff.
* Advanced credit range from 3 to 26.5 credits.

Deborah McManus – Tech Prep Coordinator

Students Support Services

The Student Support staff provides career and technical evaluation, situational assessments, instructional counseling and placement assistance to special population students who are enrolled in the program. These evaluative services are designed to provide the special population students with the necessary career information to make a more informed career choice. Student Support staff coordinate Technical School participation in MDE (Multi-Disciplinary Evaluation) and IEP (Individualized Educational Plan) meetings. In-service programs are provided for teachers to help keep them up-to-date on the latest instructional techniques to ensure student success.

TBA – Folcroft Campus   **Ed Raffaele – Folcroft Campus**
Mimi Hall – Aston Campus   **Linda Smith – Aston Campus**

Career and Guidance Department

The Career and Guidance Department provides career and academic counseling. Students are assisted in developing career objectives and long-range plans. Post-secondary recruiters are regular guests at the school, and the guidance counselors assist students in SAT registration and preparation. Information is provided on financial aid, scholarships, loans and grants for post-secondary education. The counselor works with students, districts, faculty and families to enhance the Technical School experience.

Diane Rouse – Aston Campus   **Kristen Pellegrino – Folcroft Campus**

Career and Technical Student Organizations

Participation in career and technical student organizations (CTSO) is an integral part of the Delaware County Technical Schools programs. Students have the chance to gain additional skills in personal communication, civic responsibility and competition in all phases of career and technical education. Students can participate at the local, state and national level. DCTS students have earned state and national awards for their achievements in these organizations. Our students have also held offices in the organizations:

SkillsUSA

Family, Careers and Community Leaders of America (FCCLA)

Health Occupation Students of America (HOSA)

National Technical Honor Society (NTHS)

Related Programs and Services

School to Career Programs

Delaware County Technical Schools in cooperation with Business Education Partners have established school to career opportunities for all students. Shadowing, Mentoring, Internships, Co-op Work Experience, Company visitations, Guest Speakers and Career Fairs are all designed to provide hands-on experience in a specific career.

Job Shadowing allows students to visit a place of employment and observe exactly what trained professionals in their career area do on a daily basis.

Mentoring is a longer term program where the student can spend approximately two weeks observing the trained professional at his or her place of business.

Cooperative Work Experience is a wonderful high school experience for seniors who meet all of the eligibility requirements. Through co-op, students have an opportunity to gain valuable, hands-on work experience while being paid.

Christine Marshall – Aston Campus   **Joseph Facciolo – Folcroft Campus**

Building Trades

Instructors: Lawrence Thynge and James VanVladricken

Program Overview

Practical experience and classroom training prepares students enrolled in the Building Trades program for employment in the construction field or post-secondary institution. Students are taught carpentry, masonry, plumbing, roofing, drywall application, painting, and framing/finishing. They also learn safety standard compliance, tool and equipment identification, communication skills, employability skills, and a strong emphasis is placed on math and writing skills. Course content is relevant to commercial and industrial construction needs with emphasis on reading blueprints, site preparation, building design, industrial finishing, estimating, external finishing and energy conservation. Students who qualify are given dual enrollment status at DCCC.

DCTS provides all students enrolled in the construction cluster the opportunity to earn the 10 hour OSHA (Occupational Safety & Health Administration) Safety Card. Now an industry standard, possession of the OSHA Card is not only an integral part of our commitment to safety but is also a valuable passport to any construction site in America.

SCOPE AND SEQUENCE
CIP Code Number **46.0401**
Program Name: **Building Trades**

SUBJECT	Secondary School			
	Grade 9	Grade 10	Grade 11	Grade 12
MATH	Any sequence of four credits of Mathematics that meet or exceed the PSSA standards at the proficient or advanced level and includes competency at or above Algebra II and is more rigorous in each subsequent year.			
ENGLISH	Any sequence of four credits of English that meet or exceed the PSSA standards in writing at the proficient or advanced level. Students should be able to write a well crafted five paragraph essay.			
SCIENCE	A sequence of four credits of Science that includes at least a college prep or applied physics-- Construction, Mechanical, Engineering, OR a biology with a lab and a chemistry with a lab-- Health Science.			
HUMANITIES/ SOCIAL SCIENCE	Three credits of social studies that meet the graduation requirements of the school district Sufficient credits in humanities to meet the graduation requirements of the school district			
OTHER	Sufficient credits of physical education and health that meets school district graduation requirements.			
OTHER	Completion of a graduation project			
TECHNICAL		Basic Hand Tool Usage Basic Power Tool Usage Blueprint Reading Masonry Tools and Materials	Applied Hand Tool Usage Applied Power Tool Usage Applied Blueprint Reading	Specialty Tools Blueprint Modification Specialty Concrete Forms Stair Construction
TECHNICAL		Rough Framing Tools and Materials Plumbing Tools and Materials Electricity Tools & Materials	Masonry Construction Rough Framing Construction Applied Plumbing Techniques Wiring Circuits and GFI	Trouble-Shooting Tile & Decks Flashing, Valleys & Gussets Gutters and Downspouts
TECHNICAL		Basic Interior Finishing Roofing Tools and Materials	Molding & Trim Installation Roofing Installation & Slopes	Portfolio w/Work Experience
TECHNICAL		Siding Tools & Materials Basic Portfolio w/Resume	Siding Installation & Capping	
TECHNICAL			Portfolio w/Career Research	

Recommended High School Courses

Algebra 1	Geometry
English	Science

Career Opportunities

Bricklayer
Commercial Maintenance
Drywall Applicator and Finisher
Form Builder
Framer
General Contractor
General Laborer
Gutter and Downspout Installer
Painter
Plumbing Assistant
Roofer
Siding Installer
Interior Finisher

Certifications

OSHA Safety Card
PA Skills Certificate

Advanced Credits

Dual enrollment status at Delaware County Community College
Pennsylvania College of Technology

Construction Cluster

Carpentry

Instructor: Harry Root

Program Overview

The Carpentry program prepares students for employment in residential remodeling and light commercial construction industries. The curriculum covers the use of hand and power tools, blueprint reading, estimating and scheduling of construction operations. Students are introduced to concrete form building, placing, reinforcing and finishing. Students learn different types of Home Construction including sills, floor joists, stud walls, ceiling joists, rafters and the materials to finish them. On-site construction projects are incorporated into classroom instruction. Students are taught safety standard compliance with emphasis on OSHA standards and local building codes. The Carpentry program provides students with the technical knowledge and applicable skills necessary to be employed as an apprentice, with advanced placement possible in a post-secondary program. Students who qualify are given dual enrollment status at DCCC.

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Recommended High School Courses

Algebra I	Geometry
English	Physics

Career Opportunities

Building Inspector
Cabinetmaker & Apprentice
Carpenter (Residential/Commercial)
Concrete Mason
Construction Estimator/Designer
Contractor
Project Manager

Certifications

OSHA Safety Card
PA Skills Certificate

Advanced Credits

Dual enrollment status at
  Delaware County Community College
Pennsylvania College of Technology

SCOPE AND SEQUENCE
CIP Code Number **46.0201**
Program Name: **Carpentry**

SUBJECT	Secondary School			
	Grade 9	Grade 10	Grade 11	Grade 12
MATH	Any sequence of four credits of Mathematics that meet or exceed the PSSA standards at the proficient or advanced level and includes competency at or above Algebra II and is more rigorous in each subsequent year.			
ENGLISH	Any sequence of four credits of English that meet or exceed the PSSA standards in writing at the proficient or advanced level. Students should be able to write a well crafted five paragraph essay.			
SCIENCE	A sequence of four credits of Science that includes at least a college prep or applied physics-- Construction, Mechanical, Engineering, OR a biology with a lab and a chemistry with a lab-- Health Science, OR any sequence of four credits of Science-- Ag, Business, Hospitality, Communication.			
HUMANITIES/ SOCIAL SCIENCE	Three credits of social studies that meet the graduation requirements of the school district Sufficient credits in humanities to meet the graduation requirements of the school district			
OTHER	Sufficient credits of physical education and health that meets school district graduation requirements.			
OTHER	Completion of a graduation project			
TECHNICAL		Perform Safe Practices Perform Basic Carpentry Skills	Perform Safe Practices Perform Intermediate Carpentry Skills	Perform Safe Practices Perform Advanced Carpentry Skills
TECHNICAL		Read Blueprint Prepare Building Site Use Power Tools Construct Floors & Wall	Read Blueprint Prepare Building Site Use Power Tools Construct Floors & Wall	Read Blueprint Construct Floors and Wall Framing
TECHNICAL		Framing Frame Roofs Install Roof Components Install Exterior and	Framing Frame Roofs Install Roof Components Install Exterior and	Frame Roofs Prepare Building Site Use Power Tools Construct Floors & Wall
TECHNICAL		Interior Finishes Assemble & Constructing Stairs	Interior Finishes Assemble & Constructing Stairs	Install Roof Components Install Exterior and Interior Finishes Assemble & Constructing
TECHNICAL		Install Energy Conservation Materials Work Concrete	Install Energy Conservation Materials	Stairs Install Energy Conservation Materials

Aston Campus

Industrial and Residential Electricity

Instructor: Philip Cirincione

Program Overview

The Industrial and Residential Electricity program introduces students to the basic concepts of residential and commercial wiring. Students install circuits, switches, conductors, circuit breakers and other electrical devices. Topics covered in this course include safety, materials and supplies, tools, codes, blueprint reading, and motor control. These skills are taught in compliance with the National Electrical Code (NEC) industry standards. This course also integrates math, reading, writing, and oral communication skills with employability and problem-solving skills. Upon completion, students may seek admission to a post-secondary institution or obtain an entry-level position in the electrical field. Students are expected to have good attendance records and the ability to work as a team. These skills are necessary for employment in the field.

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SCOPE AND SEQUENCE
CIP Code Number **46.0399**
Program Name: **Industrial and Residential Electricity**

SUBJECT	HIGH SCHOOL			
	Grade 9	Grade 10	Grade 11	Grade 12
MATH	Any sequence of four credits of Mathematics that meet or exceed the PSSA standards at the proficient or advanced level and includes competency at or above Algebra II and is more rigorous in each subsequent year.			
ENGLISH	Any sequence of four credits of English that meet or exceed the PSSA standards in writing at the proficient or advanced level. Students should be able to write a well crafted five paragraph essay.			
SCIENCE	A sequence of four credits of Science that includes at least a college prep or applied physics-- Construction, Mechanical, Engineering, OR a biology with a lab and a chemistry with a lab-- Health Science.			
HUMANITIES /SOCIAL SCIENCE	Three credits of social studies that meet the graduation requirements of the school district Sufficient credits in humanities to meet the graduation requirements of the school district			
OTHER	Sufficient credits of physical education and health that meets school district graduation requirements.			
OTHER	Completion of a graduation project			
TECHNICAL		Safety Basic Electrical Wiring	Residential Wiring Low Voltage Blueprint Reading	Computing Loads Industrial Motors and Controllers
TECHNICAL		Residential Wiring Commercial Wiring Conduit	Lighting Completed Portfolio Oral Presentation	Completed Portfolio Oral Presentation
TECHNICAL		Completed Portfolio		

Recommended High School Courses

Algebra 1   Geometry Physics
English

Career Opportunities

Alarm Systems Technician
Cable Installation
Electrical Contracting
Electrical Engineering
Electrical Maintenance
Electrical Supply
Elevator Repair
HVAC Technician
Physical Plant Maintenance

Certifications

OSHA Safety Card
PA Skills Certificate

Advanced Credits

Pennsylvania College of Technology
CHI Institute
Dual Enrollment at Delaware
 Community College

Program Overview

This course prepares students to apply the technical knowledge and skills necessary to install, repair and maintain commercial, industrial and residential heating, air conditioning and refrigeration systems. The course is taught in compliance with the standards established by the National Association for Testing Excellence (NATE) and the Air Conditioning Contractors of America (ACCA). It includes studies in system design, installation, troubleshooting and repair. Upon completion, students should have attained sufficient knowledge, training and understanding to gain admission to a post-secondary institution and/or obtain an entry-level position in the HVAC field. High school students who opt to enter the ACCA apprenticeship program at the minimum age of 16, earn up to 13 college credits at Delaware County Community College (DCCC), and work 500 hours for an ACCA contractor (paid employment) will be eligible for completion of one year of a four year apprenticeship program.

DCTS provides all students enrolled in the construction cluster the opportunity to earn the 10 hour OSHA (Occupational Safety & Health Administration) Safety Card. Now an industry standard, possession of the OSHA Card is not only an integral part of our commitment to safety but is also a valuable passport to any construction site in America.

Recommended High School Courses

Algebra I   English
Algebra II

Career Opportunities

Air Conditioning Installer
Air/Hydraulic Balancing Technician
Heat Pump Technician
Heating Technician
Ice Production Equipment
   Technician
Oil Burner Technician
Refrigeration Equipment Technician
Refrigeration Technician
Sheet Metal Duct Installer

Certifications

OSHA Safety Card
EPA-608 (Environmental Protection
   Agency) Certification
PA Skills Certificate

Advanced Credits

CHI Institute
Pennsylvania College of Technology
Completion of Level I requirements
   for apprenticeship program
Dual Enrollment at Delaware County
   Community College

SCOPE AND SEQUENCE
CIP Code Number **47.0201**
Program Name: **Heating, Ventilation, Air Conditioning and Refrigeration (HVAC)**

SUBJECT	HIGH SCHOOL			
	Grade 9	Grade 10	Grade 11	Grade 12
MATH	Any sequence of four credits of Mathematics that meet or exceed the PSSA standards at the proficient or advanced level and includes competency at or above Algebra II. and is more rigorous in each subsequent year.			
ENGLISH	Any sequence of four credits of English that meet or exceed the PSSA standards in writing at the proficient or advanced level. Students should be able to write a well crafted five paragraph essay.			
SCIENCE	A sequence of four credits of Science that includes at least a college prep or applied physics--Construction, Mechanical, Engineering, OR a biology with a lab and a chemistry with a lab-- Health Science.			
HUMANITIES /SOCIAL SCIENCE	A sequence of four credits of Social Science courses. Four credits of social studies that meet the graduation requirements of the school district Two credits of arts and humanities including one course in art and one course in music.			
OTHER	1.2 credits of physical education and one-half credit of health that meets school district graduation requirements.			
OTHER	One-fourth credit graduation project/One half credit of computer science/ One-fourth credit driver's education			
TECHNICAL		Perform Safe Practices for HVAC&R Perform Basic HVAC&R Skills Read Schematics Identify Tubing & Fittings Use Basic Hand Tools	Perform Safe Practices for HVAC&R Perform Intermediate HVAC&R Skills Interpret Schematics Prepare & Assemble Tubing & Fitting Use Power Tools	Lead Safe Practices for HVAC&R Perform Advanced HVAC&R Skills Wire a System Using a Schematic Solder & Braze Tubing & Fittings
TECHNICAL		Install Refrigeration Components Calculate Using Ohm's Law Perform Leak Tests	Service Refrigeration Systems Replace Defective Electrical Components Service AC Systems Service Heating Systems	Use Measuring Instruments Troubleshoot Refrigeration, Control, AC & Heating Systems
TECHNICAL		Explain Use of Psychometrics Identify Factors in Load Calculations Safely Handle & Store Refrigerants	Measure Temp & Humidity Calculate Heat Loads Determine Pressure & Temp Relationship	Chart & Interpret Psychometrics Determine Heat Transmission Recover Refrigerant

Construction Cluster

Landscape and Greenhouse Operations

Instructor: Warren Andersmith

Program Overview

As a member of the Landscape and Greenhouse Design Class, students learn the principles and skills that lead to successful careers in the fields of landscape installation/maintenance, nursery and greenhouse production/operations and floral arts. Students learn the basics of Landscape Construction, including lighting, irrigation and hardscaping. Students learn propagation, growing, planting, and plant maintenance techniques. Crops are grown in a state-of-the-art greenhouse and students develop floral design skills by creating arrangements for home and for sale.

DCTS provides all students enrolled in the construction cluster the opportunity to earn the 10 hour OSHA (Occupational Safety & Health Administration) Safety Card. Now an industry standard, possession of the OSHA Card is not only an integral part of our commitment to safety but is also a valuable passport to any construction site in America.

SCOPE AND SEQUENCE
CIP Code Number 01.0601
Program Name: Landscape and Greenhouse Operations

SUBJECT	HIGH SCHOOL			
	Grade 9	Grade 10	Grade 11	Grade 12
MATH	Any sequence of four credits of Mathematics that meet or exceed the PSSA standards at the proficient or advanced level and includes competency at or above Algebra II and is more rigorous in each subsequent year.			
ENGLISH	Any sequence of four credits of English that meet or exceed the PSSA standards in writing at the proficient or advanced level. Students should be able to write a well crafted five paragraph essay.			
SCIENCE	A sequence of four credits of Science that includes at least a college prep or applied physics-- Construction, Mechanical, Engineering, OR a biology with a lab and a chemistry with a lab-- Health Science, OR any sequence of four credits of Science-- Ag, Business, Hospitality, Communication.			
HUMANITIES/ SOCIAL SCIENCES	Three credits of social studies that meet the graduation requirements of the school district Sufficient credits in humanities to meet the graduation requirements of the school district			
OTHER	Sufficient credits of physical education and health that meets school district graduation requirements.			
OTHER	Completion of a graduation project			
TECHNICAL		Plant Structures and Plant Functions Plant taxonomy – Binomial System	Landscape Operations Plant Propagation Floral Crop Production Integrated Pest	Landscape Design Floral Design Nursery Production
TECHNICAL		Greenhouse Operations Plant Propagation Equipment Operations	Management Soils Floral Design	
TECHNICAL		Landscape Operations Floral Design	Equipment Operations	
TECHNICAL				
TECHNICAL				

Recommended High School Courses

Algebra I	English
Biology	Geometry
Chemistry	

Career Opportunities

Landscape Contractor
Gardener
Nursery/Greenhouse
Grower/Manager
Park Ranger
Landscape Designer
Floral Designer
Floral Shop Owner

Certifications

OSHA Safety Card
PA Skills Certificate

Advanced Credits

Pennsylvania College of Technology

Cosmetology

Jean Baginsky, Barbara McGee, Peggy Newburg, Linda Stewart, Veronica Stunzi

Program Overview

The Cosmetology Program is a three-year standards-based education program. The 1250 hours required for this course are earned when a score of 80% or above is achieved for each individual unit, which includes both theoretical and hands-on training. Students learn haircutting, coloring, manicuring, facials, hairstyling, and shampoo techniques and treatments. The Pennsylvania State Board of Professional and Occupational Affairs mandates 50 hours in professional practice, including sterilization, sanitation, professionalism and law; 200 hours in related sciences such as histology, trichology, chemistry, physiology and dermatology; and 1000 hours in cognitive and manipulative skills. The ultimate goal, upon completion of the program, is for all students to pass the State Board Examination.

Recommended High School Courses

Algebra I
Biology
Chemistry
Computer Applications
English

Career Opportunities

Electrologist
Hair Colorist
Hair Stylist
Makeup Artist
Manicurist
Platform Artist
Cosmetologist
Cosmetology Instructor
Product Line Educator

Certifications

PA State Board Certificate of Cosmetology Licensure
PA State Board Certificate of Cosmetology Teacher Licensure
PA Skills Certificate

Advanced Credits

Pennsylvania College of Technology

SCOPE AND SEQUENCE
CIP Code Number **12.0401**
Program Name: **Cosmetology**

SUBJECT	HIGH SCHOOL			
	Grade 9	Grade 10	Grade 11	Grade 12
MATH	Any sequence of four credits of Mathematics that meet or exceed the PSSA standards at the proficient or advanced level and includes competency at or above Algebra II and is more rigorous in each subsequent year.			
ENGLISH	Any sequence of four credits of English that meet or exceed the PSSA standards in writing at the proficient or advanced level. Students should be able to write a well crafted five paragraph essay.			
SCIENCE	A sequence of four credits of Science that includes at least a college prep or applied physics-- Construction, Mechanical, Engineering, OR a biology with a lab and a chemistry with a lab-- Health Science, OR any sequence of four credits of Science-- Ag, Business, Hospitality, Communication.			
HUMANITIES /SOCIAL SCIENCE	A sequence of four credits of Social Science courses. Four credits of social studies that meet the graduation requirements of the school district Two credits of arts and humanities including one course in art and one course in music.			
OTHER	Sufficient credits of physical education and health that meets school district graduation requirements.			
OTHER	Completion of a graduation project			
TECHNICAL		Shampoo & Rinses	Intermediate Level:	Advanced Level:
		Manicure & Pedicure	Shampoo & Rinses	Shampoo & Rinses
		State Cosmetology Laws	Manicure & Pedicure	Manicure & Pedicure
		Hair Styling	State Cosmetology Laws	State Cosmetology Laws
TECHNICAL		Permanent Wave Wrapping	Hair Styling	Hair Styling
		Facials	Permanent Wave Wrapping	Permanent Wave Wrapping
		Scalp & Hair Treatments	Facials	Facials
			Scalp & Hair Treatments	Scalp & Hair Treatments
			Permanent Waving	Permanent Waving
			Tinting and Lightening	Tinting and Lightening
TECHNICAL			Chemical Hair Relaxing	Chemical Hair Relaxing
			Hair Cutting & Shaping	Hair Cutting & Shaping
				Professional Development and Salon Business
				Salon Management Theory

Culinary Arts and Hospitality

Instructors: John Maier, Andrew Subashi and Donald Young

Program Overview

Culinary Arts and Hospitality prepares students for success in our nation's number one employer, the food service and hospitality industry. Students are taught food preparation, dining service, inventory control, safety, sanitation and management skills. Our students also learn food nutrition, healthy cooking, equipment identification, use of hand tools and culinary vocabulary. Students prepare soups and sauces, breakfast entrees, sandwich production, pies, cakes, yeast-raised products, entree preparation, international dishes, vegetable preparation, garnishing, salads and dressings. Over the past several years, DCTS students have won state and national food preparation and service competitions. Our students are involved in different student organizations such as, SkillsUSA and FCCLA (Family Career and Community Leaders of America). We are the only high school Culinary Arts program in this part of Pennsylvania to be certified by the American Culinary Federation. Upon graduation, students may seek immediate employment, enter an apprentice program or continue their culinary or management studies at the post-secondary level.

SCOPE AND SEQUENCE
CIP Code Number **12.0508**
Program Name: **Culinary Arts & Hospitality**

SUBJECT	HIGH SCHOOL			
	Grade 9	Grade 10	Grade 11	Grade 12
MATH	Any sequence of four credits of Mathematics that meet or exceed the PSSA standards at the proficient or advanced level and includes competency at or above Algebra II and is more rigorous in each subsequent year.			
ENGLISH	Any sequence of four credits of English that meet or exceed the PSSA standards in writing at the proficient or advanced level			
SCIENCE	A sequence of four credits of Science that includes at least a college prep or applied physics-- Construction, Mechanical, Engineering, OR a biology with a lab and a chemistry with a lab-- Health Science, OR any sequence of four credits of Science-- Ag, Business, Hospitality, Communication.			
HUMANITIES /SOCIAL SCIENCE	Three credits of social studies that meet the graduation requirements of the school district Sufficient credits in humanities to meet the graduation requirements of the school district			
OTHER	Sufficient credits of physical education and health that meets school district graduation requirements.			
OTHER	Completion of a graduation project			
TECHNICAL		Fundamentals of Culinary Arts Sanitation and Safety Weights and Measures Tools and Equipment	Advanced Culinary Arts Basic French Table Service Advanced Entrée Prep	Advanced Baking Instructional Practices Culinary Artistry Management & Supervision
TECHNICAL		Service Procedures & Techniques Breakfast Prep Vegetable & Starch Prep	Garnishing & Garde Manager International Cooking Banquet Prep	
TECHNICAL		Entrée Prep Dessert Prep Basic Prep	Advanced Soup, Stock & Sauce Prep Advanced Baking	

Recommended High School Courses

Algebra I	English
Chemistry	Science

Career Opportunities

Baker
Caterer
Chef
Hotel and Restaurant Management
Prep and Pantry Cook
Short Order Cook
Wait Staff

Certifications

American Culinary Federation (ACF)
PA Skills Certificate

Advanced Credits

Culinary Institute of America
Dual enrollment status at Delaware County Community College
Johnson & Wales
Pennsylvania College of Technology

Early Childhood Education

Instructor: Nancy Wolfe

Program Overview

The Early Childhood Education (ECE) program prepares students to work with young children in a variety of settings that require an understanding of how children grow, learn and develop. The curriculum is aligned with the National Child Care Association's core of 15 "Professional Abilities." Field experience and practicum provide opportunities to become involved in actual work with children and to share experiences with fellow students. The program also prepares students for pre-certification as a Child Development Associate (CDA). ECE students operate The Tot Stop Preschool, an on-site program that serves as a first school experience for three to five year old children. The student teachers plan, prepare and perform all aspects of this three-day a week program. Early Childhood Education prepares students to enter the workforce or continue their education in career areas related to childcare and guidance.

Recommended High School Courses

Algebra I
Biology
Child Development
Children's Literature
Creative Arts –
   Art, Music and
   Drama
English Psychology

Career Opportunities

Child Care Worker
Childcare Director
Kindergarten/Elementary School
   Teacher
Pediatric Aide/Nurse
Preschool Teacher
Recreation Employee
Social Worker

Certifications

Child Development Associate (CDA)
PA Skills Certificate

Advanced Credits

Harcum College
Pennsylvania College of Technology

SCOPE AND SEQUENCE
CIP Code Number **19.0708**
Program Name: **Early Childhood Education**

SUBJECT	HIGH SCHOOL			
	Grade 9	Grade 10	Grade 11	Grade 12
MATH	Any sequence of four credits of Mathematics that meet or exceed the PSSA standards at the proficient or advanced level and includes competency at or above Algebra II and is more rigorous in each subsequent year.			
ENGLISH	Any sequence of four credits of English that meet or exceed the PSSA standards in writing at the proficient or advanced level. Students should be able to write a well crafted five paragraph essay.			
SCIENCE	A sequence of four credits of Science that includes at least a college prep or applied physics-- Construction, Mechanical, Engineering, OR a biology with a lab and a chemistry with a lab-- Health Science, OR any sequence of four credits of Science-- Ag, Business, Hospitality, Communication.			
HUMANITIES /SOCIAL SCIENCES	Three credits of social studies that meet the graduation requirements of the school district Sufficient credits in humanities to meet the graduation requirements of the school district			
HUMANITIES /SOCIAL SCIENCES				
OTHER	Sufficient credits of physical education and health that meets school district graduation requirements.			
OTHER	Completion of a graduation project			
TECHNICAL		Identifies four areas of development	Apply the basic principles and theories of child development	Evaluates & assesses appropriate child development
TECHNICAL		Communicates and applies positive guidance	Creates, arranges and maintains a safe & healthy environment	Establishes appropriate rules and guidelines
TECHNICAL		Demonstrates knowledge of a safe and healthy environment	Plans, prepares and presents developmentally appropriate learning activities	Develops and implements appropriate curriculum and assessment materials
TECHNICAL		Plans, prepares and presents basic learning, materials & activities		

Emergency and Protective Services

Instructor: Paul Tresca

Program Overview

The Emergency and Protective Services program offers a comprehensive public safety education to students interested in pursuing a career or volunteering in the emergency medical, law enforcement, fire, security, industrial safety or emergency management services. Students work with protective service professionals to gain first-hand experience in all areas of these exciting professions. Units of study include fire fighting, law enforcement, emergency medical services, communications and report writing, public speaking and physical training. Students receive instruction in the field as well as the classroom. Students are required to have a high degree of motivation and self-discipline, as well as the ability to obtain Child Abuse and Criminal Background Clearances.

SCOPE AND SEQUENCE
CIP Code Number **43.9999**
Program Name: **Emergency & Protective Services**

SUBJECT	HIGH SCHOOL			
	Grade 9	Grade 10	Grade 11	Grade 12
MATH	Any sequence of four credits of Mathematics that meet or exceed the PSSA standards at the proficient or advanced level and includes competency at or above Algebra II and is more rigorous in each subsequent year.			
ENGLISH	Any sequence of four credits of English that meet or exceed the PSSA standards in writing at the proficient or advanced level. Students should be able to write a well crafted five paragraph essay.			
SCIENCE	A sequence of four credits of Science that includes at least a biology with a lab and a chemistry with a lab-- Health Science,.			
HUMANITIES/ SOCIAL SCIENCES	Three credits of social studies that meet the graduation requirements of the school district Sufficient credits in humanities to meet the graduation requirements of the school district			
OTHER	Sufficient credits of physical education and health that meets school district graduation requirements.			
OTHER	Completion of a graduation project			
TECHNICAL		Safety Communication Technology Professional Development Skills Criminal Justice System Emergency Care Basic Fire Fighting Skills	Use of Force Rescue & Extraction Haz Mat Management Law Enforcement Corrections Advanced Firefighting Skills	Private Investigations Private Security Alarm Center Law Enforcement Basic EMT Skills Airways Patient Assessment Pharmacology and Medical Emergencies Trauma EMS Operations Advanced Firefighting Skills
TECHNICAL				
TECHNICAL				
TECHNICAL				

Advanced Credits

Pennsylvania College of Technology

Recommended High School Courses

Biology	English
Geometry	Science
Algebra	

Career Opportunities

Code Enforcement Officer	Corrections Officer
DEA Agent	Dispatcher
EMS Dispatch	EMT or Paramedic
FBI Agent	Firefighter
Military Police	Municipal or State Police Officer
Park Ranger	
Security Officer	Probation Officer
Surveillance System Monitor	Sheriff
	US Marshall

Certifications

PA Essentials of Firefighting Certification

National Incident Management Systems (NIMS) Certification

Hazardous Materials for First Responder Awareness Certificate

Red Cross CPR Certification

National Safety Council First Aid Certification

Emergency Medical Commonwealth of PA Department of Health Emergency Medical Certification

PA Skills Certificate

Health and Human Services Cluster

Health Occupations

Instructors: Patricia Dillon, R.N., Mary Flanagan, R.N., and Diann Hopely, R.N.

Program Overview

The demand for skilled healthcare workers is very high. This course includes anatomy and physiology, medical terminology, nutrition, medical procedures, emergency and clinical care, and health care issues. Clinical education is an integral part of the program. Students have a solid foundation in the health sciences, baseline information on a variety of health careers, and a comprehensive overview of the roles and functions of specific health care professionals. Second-year students who qualify may participate in the Certified Nurses' Aide program. Students combine classroom instruction with two days of clinical experience to gain the 165 hours needed to sit for the state exam. The students who pass will be listed on the state registry for certified nurses' aides and will be able to work at any area hospital, nursing home or other healthcare facility. This course is designed for students who plan to continue their education upon graduation.

Recommended High School Courses

Algebra I   Geometry
Chemistry   Biology
English

Career Opportunities

Emergency Medical Technician
Health Unit Coordinator
Home Health Aide
Nurse
Nurse Aide
Radiographist
Respiratory Therapist

Certifications

Certified Nurse Assistant (CNA)
National Nurse Aide Assessment
  (NNAAP)
Healthcare Provider BLS
  (Basic Life Support) Certification
PA Skills Certificate

Advanced Credits

CHI Institute
Harcum College
Pennsylvania College of Technology

SCOPE AND SEQUENCE
CIP Code Number **51.0899**
Program Name: **Health Occupations**

SUBJECT	Secondary School			
	Grade 9	Grade 10	Grade 11	Grade 12
MATH	Any sequence of four credits of Mathematics that meet or exceed the PSSA standards at the proficient or advanced level and includes competency at or above Algebra II and is more rigorous in each subsequent year.			
ENGLISH	Any sequence of four credits of English that meet or exceed the PSSA standards in writing at the proficient or advanced level. Students should be able to write a well crafted five paragraph essay.			
SCIENCE	A sequence of four credits of Science that includes at least a biology with a lab and a chemistry with a lab-- Health Science.			
HUMANITIES/ SOCIAL SCIENCE	Three credits of social studies that meet the graduation requirements of the school district Sufficient credits in humanities to meet the graduation requirements of the school district			
OTHER	Sufficient credits of physical education and health that meets school district graduation requirements.			
OTHER	Completion of a graduation project			
TECHNICAL		Careers in Health Care Health Care Systems Safety I Skeletal System Muscular System Integumentary System Special Senses Medical Terminology I Vital Signs Infection Control I Geriatric Care Nutrition & Diet I	Respiratory System Digestive System Urinary System Reproductive System Medical Terminology II Infection Control II Care of the Surgical Patient Nutrition & Diet II Safety II	Nervous System Circulatory System Lymphatic System Endocrine System

Medical Careers

Instructors: Rosemary Barakat, R.N., and Denise Kossuth, R.N.

Program Overview

This advanced course is recommended for the college-bound senior who is interested in pursuing a career in the healthcare profession. In this program, the hospital becomes the classroom. Through a partnership with Crozer-Keystone Health System, students will rotate through various departments of the hospital. Students will observe many career opportunities and will work alongside medical professionals as they care for patients. The academic curriculum will include the study of; anatomy, physiology, pathophysiology, medical terminology and abbreviations, safety, infection control, communication techniques, legal/ethical issues and responsibilities. Students will also learn basic patient care skills including; assessment of vital signs, first aid, assisting with activities of daily living, and sterile techniques. CPR certification is also offered. The challenging academic curriculum, patient care skills practicum and clinical rotation will help the students with future career choices in healthcare and prepare them for the next step in their education.

SCOPE AND SEQUENCE
CIP Code Number **51.9999**
Program Name: **Medical Careers**

SUBJECT	HIGH SCHOOL			
	Grade 9	Grade 10	Grade 11	Grade 12
MATH	Any sequence of four credits of Mathematics that meet or exceed the PSSA standards at the proficient or advanced level and includes competency at or above Algebra II and is more rigorous in each subsequent year.			
ENGLISH	Any sequence of four credits of English that meet or exceed the PSSA standards in writing at the proficient or advanced level. Students should be able to write a well crafted five paragraph essay.			
SCIENCE	A sequence of four credits of Science that includes at least a college prep or applied physics-- Construction, Mechanical, Engineering, OR a biology with a lab and a chemistry with a lab-- Health Science, OR any sequence of four credits of Science-- Ag, Business, Hospitality, Communication.			
HUMANITIES /SOCIAL SCIENCES	Three credits of social studies that meet the graduation requirements of the school district Sufficient credits in humanities to meet the graduation requirements of the school district			
OTHER	Sufficient credits of physical education and health that meets school district graduation requirements.			
OTHER	Completion of a graduation project			
TECHNICAL			Role and responsibility Patient/healthcare workers safety principles of infection control Cardiopulmonary resuscitation and first aid	
TECHNICAL			Anatomy and physiology Medical terminology and abbreviations Patient responsibilities and care giving skills	
TECHNICAL			Vital signs Communications Special needs through the life span Medical legalities, ethics; patient's right Nutrition Respiratory therapy Physical medicine and rehabilitation Surgery Radiology Pharmacy Nursing Patient care responsibilities	

Recommended High School Courses

College Prep Courses
Biology and Chemistry
(Advanced Placement/Honors Level)
Algebra I, II and Geometry

Career Opportunities

Emergency Medical Technician
Medical Lab Technician
Pharmacy Technician
Patient Care Technician
Cardiovascular Technologist
Dietician
Health Information Technologist
Medical Technologist
Occupational Therapist
Pharmacist
Physician
Physical Therapist
Physician's Assistant
Radiation Therapy Technologist
Registered Nurse
Respiratory Therapist

Certifications

Healthcare Provider BLS
   (Basic Life Support) Certification

Advanced Credits

PA Skills Certificate
Pennsylvania College of Technology
Harcum College

Automotive Technology

Instructors: Peter Dillon, Ron Erle, and Ronald Stoume

Program Overview

DCTS has the distinct honor of being among a small number of schools and colleges to be selected to participate in the AYES program, a partnership with General Motors, Daimler Chrysler, BMW, Honda, Hyundai, Subaru, Toyota, Mitsubishi Motors, Nissan, Volkswagen, Audi and Mercedes Benz corporations. This program gives DCTS students a competitive edge by allowing them to work directly on new cars with technicians experienced in the field and at dealerships.

AYES (Automotive Youth Educational System) is a nationally recognized business and education partnership of 14 manufacturers and state automotive dealer associations. The program combines a rigorous education process with job shadowing, mentoring, employability skills and hands-on training to prepare students for entry level positions in the service career in new car dealerships and for important post-secondary opportunities in college or certificate based schools.

Students prepare for the recognized NATEF/ASE accredited instructional program that emphasizes learning skills to diagnose, service and maintain all types of automobiles. Upon graduation, students will be eligible to take the NATEF/ASE exam after completing one year of employment in the automotive field. Graduates of this program will be qualified to enter the automotive field as entry-level service technicians in new car dealerships or related automotive businesses.

Recommended High School Courses

Algebra I	Geometry
Chemistry	Physics
English	

Career Opportunities

Auto Technician specializing in:
- Brakes
- Electrical/Electronic Systems
- Engine Performance
- Engine Repair
- Parts Specialist
- Service Writer
- Steering and Suspension

Certifications

AYES (Automotive Youth Educational System)
NATEF (National Automotive Technicians Education Foundation)
ASE (Automotive Service Excellence)
PA Skills Certificate

Advanced Credits

Camden County Community College
Automotive Training Center (ATC)
Dual enrollment status at DCCC
   Lincoln Tech
Northampton County C.C.
Ohio Technical College
Pennsylvania College of Technology
Universal Technical Institute

SCOPE AND SEQUENCE
CIP Code Number **47.0604**
Program Name: **Automotive Technology**

SUBJECT	HIGH SCHOOL			
	Grade 9	Grade 10	Grade 11	Grade 12
MATH	Any sequence of four credits of Mathematics that meet or exceed the PSSA standards at the proficient or advanced level and includes competency at or above Algebra II.			
ENGLISH	Any sequence of four credits of English that meet or exceed the PSSA standards in writing at the proficient or advanced level. Students should be able to write a well crafted five paragraph essay.			
SCIENCE	A sequence of four credits of Science that includes at least a college prep or applied physics-- Construction, Mechanical, Engineering, OR a biology with a lab and a chemistry with a lab-- Health Science.			
HUMANITIES /SOCIAL SCIENCE	A sequence of four credits of Social Science courses. Four credits of social studies that meet the graduation requirements of the school district. Two credits of arts and humanities including one course in art and one course in music.			
OTHER	1.2 credits of physical education and one-half credit of health that meets school district graduation requirements.			
OTHER	One-fourth credit graduation project/One half credit of computer science/ One-fourth credit driver's education			
TECHNICAL		Safety	Safety	Safety
		Power Accessory Repair	Fuel System Pressure Testing	Engine Performance
TECHNICAL		Starting System Repair	Scan Tool Use	Scan Tool Diagnosis
		Charging System Repair	Engine Measurements	Oscilloscope Diagnosis
		Wiring Repair	Oscilloscope Use	Fuel System Diagnosis
TECHNICAL		Lighting System Repair	Gauges & Warning Light Diagnosis	Engine Block Overhaul
		Sensor Replacement	Engine Mechanical Diagnosis	Cylinder Head Overhaul
		Engine Maintenance	Lubrication & cooling System Diagnosis	Air Bag System
		Wheel Bearing Diagnosis & Repair	Wiper Systems	Schematic Diagram Reading
TECHNICAL		Disc Brake Diagnosis & Repair	Use of Electrical Service Manual	Fuel Injector Cleaning & Service
		Tire & Wheel Diagnosis & Repair	Brake Hydraulic Diagnosis & Repair	PA State Inspection Certification
			Drum Brake System	Electrical Accessory Diagnosis
			Steering System	Use of Computerized Diagnosis Equipment
			Suspension System	AYES Program Participation
				Anti-Lock Brake Diagnosis & Repair
				Power Brakes
				Wheel Alignment Diagnosis, Repair & Adjustment
				PA Enhanced Emissions Inspection Certificate

Collision Repair Technology

Instructor: Martin Stamper

Program Overview

Collision Repair Technology is based on an occupational analysis of the auto body field and reflects the entry-level job requirements of I-CAR (Inter-Industry Conference on Auto Collision Repair) and the Automotive Collision Technology standards. Using state-of-the-art equipment, students are taught MIG welding/cutting, metal repair, corrosion protection, masking, refinishing, undercoating, unibody inspection and detailing. They are also taught safety compliance, tools and equipment identification. The Collision Repair Technology program is designed to give each student the knowledge, understanding and training needed to secure a position in the collision repair field, and/or enter a post-secondary institution.

SCOPE AND SEQUENCE
CIP Code Number **47.0603**
Program Name: **Collision Repair Technology**

SUBJECT	HIGH SCHOOL			
	Grade 9	Grade 10	Grade 11	Grade 12
MATH	Any sequence of four credits of Mathematics that meet or exceed the PSSA standards at the proficient or advanced level and includes competency at or above Algebra II and is more rigorous in each subsequent year.			
ENGLISH	Any sequence of four credits of English that meet or exceed the PSSA standards in writing at the proficient or advanced level. Students should be able to write a well crafted five paragraph essay.			
SCIENCE	A sequence of four credits of Science that includes at least a college prep or applied physics-- Construction, Mechanical, Engineering, OR a biology with a lab and a chemistry with a lab-- Health Science.			
HUMANITIES /SOCIAL SCIENCES	A sequence of four credits of Social Science courses. Four credits of social studies that meet the graduation requirements of the school district. Two credits of arts and humanities including one course in art and one course in music.			
OTHER	1.2 credits of physical education and one-half credit of health that meets school district graduation requirements.			
OTHER	One-fourth credit graduation project/One half credit of computer science/ One-fourth credit driver's education			
TECHNICAL		Intro Masking techniques Surface Prep	Applied Masking Techniques Applied Surface Prep	Specialty Tapes/Techniques Advanced Surface Prep Problem Solving
TECHNICAL		Undercoating/ Corrosion Protection Hand Tools/Power	Application of Primers/Primer Surfacers Applied Hand/Power Tool Usage	Specialty Tools Advanced MIG Welding Customer Repairs/Specialty Fillers
TECHNICAL		Tools Welding/Cutting Non-Structural	Applied Welding/Cutting Metal Straightening Techniques	Panel Removal/ Replacement/Alignment Rim/Hardware
TECHNICAL		Repair Non-Structural (Trim/Hardware) Refinishing	Non-Structural (Panel Replacement/Align) Applied Trim/Hardware Removal	Removal/Replacement Blending/Mixing/Problem Solving Interiors/Exteriors (Custom
TECHNICAL		Detailing Basic Portfolio	Paint Mixing/Applied Base Coat/Clear Coat Interiors/Exteriors Portfolio w/Career Research	Work) Portfolio w/Work Experience

Recommended High School Courses

Algebra I	English
Geometry	Science
Chemistry	

Career Opportunities

Foreman/Manager/Owner
Painter Technician
Detail Technician
Metal Technician
Unitized Frame Technician
Preparation Technician
Assembler/Disassembler
Paint Representative
Paint/Parts Sales

Certifications

ASE (Automotive Service Excellence)
PA Skills Certificate

Advanced Credits

Pennsylvania College of Technology

Power and Transportation Cluster

Materials and Inventory Control

Instructor: John McIlhenney

Program Overview

Materials and Inventory Control introduces students to the distribution service industry. The course curriculum prepares students to work in distribution centers, warehouses, and supply rooms. Students learn safety standard compliance, tool and equipment identification, operation of industrial lift/transport equipment, data entry and communication skills. The students develop these skills while managing and operating the DCIU Distribution Center and the Science Material Center for Delaware County. Upon completion, students will have the necessary skills to obtain an entry-level position in the field.

Recommended High School Courses

Accounting	English
Computer	Math
Applications	Keyboarding

Career Opportunities

Forklift Operator
General Warehouse
Inventory Control
Shipping and Receiving

Certifications

Propane Forklift Four Wheel
Pallet Jacks
Stock Pickers
Stackers
*All OSHA Certified

Advanced Credits

SCOPE AND SEQUENCE
CIP Code Number **52.0203**
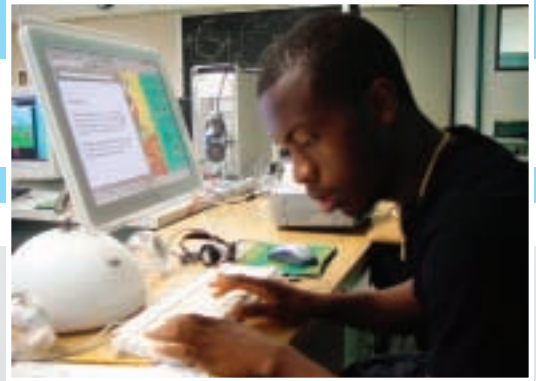### Program Name: **Materials and Inventory Control**

SUBJECT	HIGH SCHOOL			
	Grade 9	Grade 10	Grade 11	Grade 12
MATH	Standard Math as per benchmarks that meet or exceed PSSA standards at the proficient level.			
ENGLISH	Standard English as per benchmarks th.at meet or exceed PSSA standards at the proficient level.			
SCIENCE	Standard Science as per benchmarks that meet or exceed PSSA standards at the proficient level.			
HUMANITIES /SOCIAL SCIENCE	A sequence of four credits of Social Science courses. Three to four credits of social studies that meet the graduation requirements of the school district Two credits of arts and humanities including one course in art and one course in music.			
OTHER	1.5 credits of physical education and .5 credit of health that meets school district graduation requirements.			
OTHER	One-fourth credit graduation project/One half credit of computer science/ One-fourth credit driver's education			
TECHNICAL		Safety Receiving Checking a Delivery Computer Skills Material Handling Tools and Equipment Hand Tools and Equipment Pallet Movers Lift Trucks Physical Inventory Order Picking Checking a Shipment Professional Development	Safety Receiving Checking a Delivery Computer Skills Material Handling Tools and Equipment Hand Tools and Equipment Pallet Movers Lift Trucks Physical Inventory Order Picking Checking a Shipment Professional Development	Safety Receiving Checking a Delivery Computer Skills Material Handling Tools and Equipment Hand Tools and Equipment Pallet Movers Lift Trucks Physical Inventory Order Picking Checking a Shipment Professional Development

Advertising Design and Commercial Art

Instructor: Michael Charles

Program Overview

Advertising Design and Commercial Art is a computer graphics program that introduces students to technology-based desktop publishing, design and production skills. Students learn the concepts of color and design and their use in computer-based graphic design. The goal of the program is to provide students with the basic knowledge and skills required for an entry-level position in a variety of fields, which requires the use of computer graphics applications, or for admissions to a post-secondary institution to refine their skills.

SCOPE AND SEQUENCE
CIP Code Number **50.0402**
Program Name: **Advertising Design and Commercial Art**

SUBJECT	HIGH SCHOOL			
	Grade 9	Grade 10	Grade 11	Grade 12
MATH	Any sequence of four credits of Mathematics that meet or exceed the PSSA standards at the proficient or advanced level and includes competency at or above Algebra II and is more rigorous in each subsequent year.			
ENGLISH	Any sequence of four credits of English that meet or exceed the PSSA standards in writing at the proficient or advanced level. Students should be able to write a well crafted five paragraph essay.			
SCIENCE	A sequence of four credits of Science that includes at least a college prep or applied physics-- Construction, Mechanical, Engineering, OR a biology with a lab and a chemistry with a lab-- Health Science, OR any sequence of four credits of Science-- Ag, Business, Hospitality, Communication.			
HUMANITIES /SOCIAL SCIENCES	Three credits of social studies that meet the graduation requirements of the school district Sufficient credits in humanities to meet the graduation requirements of the school district			
OTHER	Sufficient credits of physical education and health that meets school district graduation requirements.			
OTHER	Completion of a graduation project			
TECHNICAL		Computer Operating Systems Graphic Design Principles Advertising & Marketing Principles	Multimedia Design Principles Instructional Technology Graphics Editing	Desktop Publishing & Multimedia Project Assignments Application Specific Tutorials
TECHNICAL		Art History Drawing & Painting Software Applications	Sound Editing Video Editing Animation Techniques	Art History Internet Usage Portfolio & Career Development
TECHNICAL		Scanning & Graphics Editing Desktop Publishing Business Software	Art History Internet Usage Portfolio & Career Development	
TECHNICAL		Applications Internet Usage Portfolio & Career Development		

Recommended High School Courses

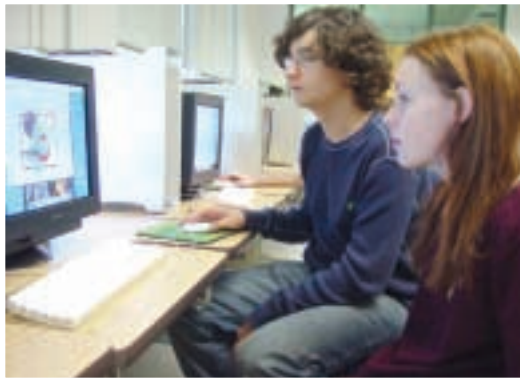|	
Algebra I	English
Art	Geometry

Career Opportunities

Advertising Representative
Art Director
Desktop Publisher
Graphic Designer
Illustrator
Marketing Sales
Multimedia Designer
Production Artist
Web Page Designer

Certifications

PA Skills Certificate

Advanced Credits

Pennsylvania College of Technology

Technology Cluster

Applied Engineering Technology

Instructor: Graham Kelly

Program Overview

The Applied Engineering Technology Career Pathways Program is an innovative education model which allows a student to earn up to 16 credits while in their junior and senior years of high school. Students entering this program will actually be enrolled in Delaware County Community College (DCCC) while in high school and will be entitled to all of the services of DCCC. At the conclusion of each semester, students will receive official college transcripts for the courses taken, which are relevant to the AET programs offered at DCTS. Upon graduation, students may decide to immediately enter the workforce, continue on with their college program at DCCC and achieve the two-year associate degree, or continue within the AET Career Pathways Program and become dually enrolled again, with Drexel University and work toward completing the four-year Bachelor of Science degree in Applied Engineering Technology. It is important to note that the credits earned are fully applicable only when the student remains within the AET Career Pathways Program Dual Enrollment Model.

Recommended High School Courses

Algebra I	Physics
English	Geometry

Career Opportunities

Automated Manufacturing/Robotics
Computer Aided Drafting and Design
CNC Programming/Machining
Machine Operator
Machine Tool Technology
Millwrights

Certifications

CNC Programming (Lathe & Mill)
CADD (Computer Aided Drafting
  and Design)
Computer-Aided Machining
  (Lathe, Mill & EDM)
Delaware Valley Industrial Resource
  Center Industry Recognized
  Certificates
Machining Operations (I & II)
Pa Skills Certificate

Advanced Credits

Delaware County Community College
Drexel University
Pennsylvania College of Technology

SCOPE AND SEQUENCE
CIP Code Number **15.5999**
Program Name: **Applied Engineering Technology**

SUBJECT	HIGH SCHOOL			
	Grade 9	Grade 10	Grade 11	Grade 12
MATH	Any sequence of four credits of Mathematics that meet or exceed the PSSA standards at the proficient or advanced level and includes competency at or above Algebra II and is more rigorous in each subsequent year.			
ENGLISH	Any sequence of four credits of English that meet or exceed the PSSA standards in writing at the proficient or advanced level. Students should be able to write a well crafted five paragraph essay.			
SCIENCE	A sequence of four credits of Science that includes at least a college prep or applied physics-- Construction, Mechanical, Engineering, OR a biology with a lab and a chemistry with a lab-- Health Science.			
HUMANITIES /SOCIAL SCIENCE	Three credits of social studies that meet the graduation requirements of the school district. Sufficient credits in humanities to meet the graduation requirements of the school district			
OTHER	Sufficient credits of physical education and health that meets school district graduation requirements.			
OTHER	Completion of a graduation project			
TECHNICAL		Shop Orientation & Safety Fabrication and Repair Introduction to Electricity and Electronics DC and DC Circuits AC and AC Circuits	Advanced DC & DC Circuits Advanced AC & AC Circuits Advanced Semiconductor Circuits Advanced Linear Integrated Circuits	Power Supplies Microprocessors Computer Fundamentals Computer System Fabrication & Repair (A+)
TECHNICAL		Semiconductor Devices and Circuits Linear Integrated Devices and Circuits	Advanced Logic Devices & Circuits Advanced Fabrication & Repair	Senior Presentation/ Portfolio
TECHNICAL		Logic Devices and Circuits Portfolio Presentation	Portfolio Presentation	

Business Administration and Technical Support

Instructor: Annette Lee

Program Overview

The Business Academy

The Business Administration and Technical Support (BATS) program is intended for students who want to explore the many areas of business to determine a future career path. This highly individualized program introduces students to topics that are essential to learning how businesses function. Students will gain an understanding of the principles of entrepreneurship, focusing on fundamental skills needed to start and maintain a small business venture. These skills are acquired through a combination of classroom theory and hands-on experience. The curriculum also includes the study and use of computer software commonly found in a business environment. The software used includes: word processing, spreadsheets, databases, business presentations and Internet research. Students have the opportunity to obtain certification as a Microsoft Office Specialist (MOS). The MOS certification provides a benchmark to validate users' skills in the Microsoft Office Suite. The following areas of concentration are available: Sports Management, Legal Secretarial Support, Travel and Hospitality/Gaming Industry, Criminal Justice Administrative Support and Entrepreneurship.

SCOPE AND SEQUENCE
CIP Code Number 52.0401
Program Name: Business Administration & Technical Support

SUBJECT	Secondary School			
	Grade 9	Grade 10	Grade 11	Grade 12
MATH	Any sequence of four credits of Mathematics that meet or exceed the PSSA standards at the proficient or advanced level and includes competency at or above Algebra II and is more rigorous in each subsequent year.			
ENGLISH	Any sequence of four credits of English that meet or exceed the PSSA standards in writing at the proficient or advanced level. Students should be able to write a well crafted five paragraph essay.			
SCIENCE	A sequence of four credits of Science that includes at least a college prep or applied physics-- Construction, Mechanical, Engineering, OR a biology with a lab and a chemistry with a lab-- Health Science, OR any sequence of four credits of Science-- Ag, Business, Hospitality, Communication.			
HUMANITIES/ SOCIAL SCIENCE	Three credits of social studies that meet the graduation requirements of the school district Sufficient credits in humanities to meet the graduation requirements of the school district			
OTHER	Sufficient credits of physical education and health that meets school district graduation requirements.			
OTHER	Completion of a graduation project			
TECHNICAL		Microcomputer Fundamentals Windows Environment Computerized Keyboarding Data Entry Intro to Microsoft Word Desktop Publishing Intro to Excel Intro to PowerPoint Internet Fundamentals Business Communications Employment Portfolio	Computerized Keyboarding Intermediate Microsoft Word Desktop Publishing Intermediate Excel Intermediate PowerPoint Intermediate Access Internet Research Techniques Machine Transcription Interview/Employability Skills Employment Portfolio	Integrated Software Applications Advanced Microsoft Word Advanced Excel Advanced Access Advanced PowerPoint Business Communications Machine Transcription Senior Project Employment Portfolio Interview/Employability Skills
TECHNICAL				
TECHNICAL				
TECHNICAL				

Recommended High School Courses

Business Math Keyboarding
English   Reading

Career Opportunities

Entrepreneur/Small Business Owner
Administrative Coordinator
Sales Representative
Human Resources Assistant
Customer Service Representative
Executive Assistant

Certifications

Microsoft Office Suite Specialist (MOS)
PA Skills Certificate

Advanced Credits

Pennsylvania Institute of Technology
Harcum College
Pennsylvania College of Technology

Computer Networking Systems

Instructor: Craig Elliott

Program Overview

The Computer Networking Systems course will enable students to design, install, configure and troubleshoot local and wide area networks. All aspects of networking are explored; including understanding how a packet is placed on the network wire and how to create a remote connection from home to work. The course curriculum is aligned with the CompTIA Network+ Industry Certification. Upon completion of this course, students may seek further education at a college or trade school, or obtain an entry-level position in the computer networking field.

SCOPE AND SEQUENCE
CIP Code Number **11.0901**
Program Name: **Computer Networking Systems**

SUBJECT	Secondary School			
	Grade 9	Grade 10	Grade 11	Grade 12
MATH	Any sequence of four credits of Mathematics that meet or exceed the PSSA standards at the proficient or advanced level and includes competency at or above Algebra II and is more rigorous in each subsequent year.			
ENGLISH	Any sequence of four credits of English that meet or exceed the PSSA standards in writing at the proficient or advanced level. Students should be able to write a well crafted five paragraph essay.			
SCIENCE	A sequence of four credits of Science that includes at least a college prep or applied physics-- Construction, Mechanical, Engineering, OR a biology with a lab and a chemistry with a lab-- Health Science, OR any sequence of four credits of Science-- Ag, Business, Hospitality, Communication.			
HUMANITIES/ SOCIAL SCIENCE	Three credits of social studies that meet the graduation requirements of the school district Sufficient credits in humanities to meet the graduation requirements of the school district			
OTHER	Sufficient credits of physical education and health that meets school district graduation requirements.			
OTHER	Completion of a graduation project			
TECHNICAL			Computer Networking Support: -Electric circuits -Generators & motors -Transformers	
TECHNICAL			-Semiconductors -Digital & microprocessor principles and applications -Repair & fabrication electronic circuits	
TECHNICAL			-Measuring instruments -Troubleshooting computer components -Software applications -Networking theory & fundamentals	

Recommended High School Courses

Algebra I   English

Career Opportunities

LAN Specialist
Network Administrator
Network Systems Engineer
Network Service Technician
Network Programmer/Analyst
Network Systems Manager

Certifications

MCSE (Microsoft Certified
  Systems Engineer)
TIA NET+ Certification
PA Skills Certificate

Advanced Credits

CHI Institute
Pennsylvania College of Technology

DELAWARE COUNTY TECHNICAL SCHOOLS
ADMISSION APPLICATION

Date: _____ School Year: _____ - _____

Directions: Please *__print__* the information that is needed.
Please submit to Delaware County Technical Schools, 200 Yale Avenue, Morton, PA 19070.

Student Information (Please Print)

Social Security Numbers: _____ - _____ - _____

First Name: _____ MI: ____ Last Name: _____

Address: _____ City: _____

State: _____ Zip Code: _____ Home Phone: _____

Birthdate: ____ / _____ / _____   Male ___ Female ___   Are you a US Citizen? Yes _____ No_____

Student resides with: Parent ____ Guardian ____   Other: _____

School: _____ Grade: _____

District of Residence:_____

Please identify your national origin (check one):

Please note that we ask you to voluntarily complete this question help us achieve our race/national origin desegregation and affirmative action goals. This information will not be used in determining your admission to DCTS and you will not be penalized for failure to provide the data.

_____ White (Non-Hispanic)
_____ African American
_____ Hispanic
_____ Asian
_____ American Indian/Alaskan Native
_____ Native Hawaiian/Pacific Islander

Parent Information (Please Print)

Mother/Guardian: _____ Daytime Phone: _____

Father/Guardian: _____ Daytime Phone: _____

Emergency Name: _____ Emergency Phone: _____

Student's Birthplace: _____
Country, City and State

Program Selection:
I am interested in the following career programs:

Session: AM _____   PM _____   Exploratory-AM only (1 semester) _____

First Choice: _____ **Second Choice:** _____

Third Choice: _____ Location requested: Folcroft _____ Aston_____

STUDENT ESSAY

Must be written by the student in ink on a separate sheet. The essay will answer the questions "Why did you apply to DCTS and what is your goal upon completion?" Essays must be between 100 and 200 words and are to be attached to the completed application.

PARENT/GUARDIAN CONTRACT

I, the parent/guardian of _____ , do hereby understand the following:

1. In order to attend the Delaware County Technical Schools, a student must have successfully completed the 8th grade. Students must be 14 years old to enroll in the exploratory program and 15 years old to register in a DCTS career program.
2. Bus Transportation is provided by local school districts at no charge. Transportation arrangements must be made through the school district. **Students who drive to DCTS must register for a permit at DCTS on the first day of school.**
3. Photographs and/or videotapes of my child may be used for publicity or recruitment purposes. If you do not give your permission, please sign here. _____
4. I understand that while enrolled in DCTS my child will use a variety of technology resources, including the Internet, as part of his/her total educational experience.
5. I hereby give permission to release all school records to DCTS.
6. I agree to encourage effort, punctuality and attendance. I also agree to provide lab clothing as required, and I understand that such items are the personal property of the student, who must be responsible for their safekeeping.

_____
Parent/Guardian Signature

_____
Date

_____
Student Signature

_____
Date

TO BE COMPLETED BY DISTRICT COUNSELORS
Please check to course this student has passed thus far during secondary school (grades 7-12)

Advanced Academic Courses

- ☐ AP English
- ☐ College Prep English
- ☐ Foreign Language II and Above
- ☐ Journalism
- ☐ Public Speaking
- ☐ Technical Writing
- ☐ AP Calculus AB
- ☐ AP Calculus BC
- ☐ Algebra I
- ☐ Algebra IB
- ☐ Algebra II
- ☐ Algebra III
- ☐ Applied Mathematics II (CORD)
- ☐ Applied Mathematics III (CORD)
- ☐ Calculus
- ☐ Integrated Math I (Equivalent to Algebra I)
- ☐ Integrated Math II (Equivalent to Geometry)
- ☐ Integrated Math III (Equivalent to Algebra II)

- ☐ Plane and Solid Geometry
- ☐ Pre-Calculus
- ☐ Probability and Statistics
- ☐ Trigonometry
- ☐ AP Biology
- ☐ AP Chemistry
- ☐ AP Physics
- ☐ Applied Biology/Chemistry I (CORD)
- ☐ Applied Biology/Chemistry II (CORD)
- ☐ Biology I
- ☐ Biology II
- ☐ Chemistry I
- ☐ Chemistry II
- ☐ Geology
- ☐ Physics I
- ☐ Physics II
- ☐ Principles of Technology II (CORD/AIT)
- ☐ AP Computer Science

As this student's district counselor, I have done the following:

- ☐ Application completed
- ☐ Transcripts attached
- ☐ Attach Student Essay   ☐ 8th Grade PSSA Scores

- ☐ Attendance record for current school year attached
- ☐ Copy of current report card attached
- ☐ IEP/ER attached (if applicable)

District High School Counselor _____

Signature

Date

For DCTS office use only:

Student: ☐ accepted
            ☐ not appropriate (reason: _____)
            ☐ other (missing information: _____)

Career Area: _____   Student Services Approval Initials

Session: _____   _____, _____, _____, _____, _____

Instructor: _____   Date completed: _____

DCTS
Delaware County Technical Schools

DCTS

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200 Yale Avenue
Morton, PA 19070