



2026-2027 COURSE SELECTION GUIDE

Central Montco Technical High School (CMTHS) provides a variety of educational programs that prepare students to enter the workforce or to continue their education at colleges, universities, and technical schools. In addition, to occupation specific training, CMTHS promotes the development of civic responsibility, employability skills, leadership, and professionalism. All programs are competency based and designed to meet the needs, skills, interests, abilities, and preferences of the individual student.

CMTHS is dedicated to supporting the local business and industry sector of the community by providing programs that assist in meeting local, state, and national workforce requirements. At CMTHS, caring and professionally certified staff share their skills while challenging and mentoring their students. Many of the instructors have established high profiles in their fields of expertise prior to becoming teachers. Teachers serve as mentors and respond to individual needs as they extend their support and enthusiasm while preparing students for the future. Students can obtain a variety of state and nationally recognized certifications and professional licenses. (Classes designated *H below are recognized as Honors Level classes at PW)

TECHNICAL PROGRAM OF STUDY	CAREER FIELD (CLUSTER)	CIP CODE	GRADE LEVEL ELIGIBILITY
Automotive Technology	Transportation, Distribution and Logistics	47.0604	10-11-12
Baking & Pastry Arts	Hospitality and Tourism	12.0501	10-11-12
Barbering	Human Services	12.0402	10-11-12
Building Trades	Architecture - Construction	46.0401	10-11-12
Collision Repair Technology	Transportation, Distribution and Logistics	47.0603	10-11-12
Cosmetology	Human Services	12.0401	10-11-12
Culinary Arts	Hospitality and Tourism	12.0508	10-11-12
Early Childhood Education	Education and Training	19.0708	10-11-12
Exercise Sciences & Rehab Therapy	Health Sciences	51.2604	10-11-12
Healthcare Sciences	Health Sciences	51.0899	10-11-12
*H Allied Health	Health Sciences	NA	12
*H Secondary Education Academy	Education and Training	NA	11-12
Landscape Design & Construction	Architecture - Construction	01.0601	10-11-12
Networking Technology	Information Technology	11.0901	10-11-12
Public Safety	Law and Public Safety	43.0107	10-11-12
Visual Communications	Arts and Communications	50.0402	10-11-12
Video, Sound, and Music Production	Arts and Communications	10.9999	10-11-12

ADMISSIONS

Admission to CMTHS is based upon the recommendation of your Plymouth Whitmarsh High School counselor and/or IEP team. An application with a copy of the IEP, if applicable, is required before enrollment. CMTHS enrolls students who thrive in a competitive environment. Through careful scheduling with your PWHS counselor, students can meet most college entrance requirements and attend CMTHS. We encourage all students and parents to visit CMTHS and consult the CMS program coordinator to select the most appropriate program and schedule of academic classes.

Although CMTHS programs are developed around a three-year curriculum, students may enter CMTHS in 10th, 11th, or 12th grade. Your application requires preregistration and must be coordinated through your PWHS counselor. Interested students are responsible for applying through EnrollTrack portal by registering for an account and providing basic demographic information. Students should enroll at <https://www.cmths.org/prospective-students>.

STUDENT ORGANIZATIONS

SKILLSUSA & HEALTH OCCUPATIONS STUDENTS OF AMERICA (HOSA) - SkillsUSA and HOSA have very active chapters at CMTHS. These programs are nationally recognized organizations in which all students participate. SkillsUSA is a national partnership of students, teachers and industry working together to ensure America has a skilled work force through leadership training and student government. HOSA provides a unique program of leadership development, motivation, and recognition exclusively for secondary, postsecondary, adult, and collegiate students enrolled in healthcare fields.

NATIONAL TECHNICAL HONOR SOCIETY - The National Technical Honor Society is the acknowledged leader in the recognition of outstanding student achievement in career and technical education. Over 2000 schools and colleges throughout the U.S. and its territories are affiliated with the Society. Member schools agree that NTHS encourages higher scholastic achievement, cultivates a desire for personal excellence, and helps students find success in today's competitive workplace.

NETWORKING TECHNOLOGY (Grade 10-12)

(TEC9031F) DUAL ENROLLMENT (EET 145)

CAREER CLUSTER: INFORMATION TECHNOLOGY

ARTICULATION AGREEMENT: CIP CODE 11.0901



COURSE DESCRIPTION: This is an instructional program that focuses on the design, implementation, and management of linked systems of computers, peripherals and associated software and prepares individuals with the technical skills required to support networks and network users. This program includes instruction in networks technologies and standards: system design, architecture, operating systems, security, communications protocols, client support, messaging services, network management, troubleshooting and server optimization. ***Students who choose to pursue the dual enrollment option will earn 3 college credits from Pennsylvania College of Technology.**

The Networking Technology program at Central Montco Technical High School is intended to meet the needs of the technology industry both now and in the future. With the Internet growing continually, there are many opportunities available to Networking Technology students. With an education in infrastructure-level networking, students are highly sought after by employers.

POTENTIAL CERTIFICATIONS: Students in the Networking Technology Program may earn the following certifications:

- NOCTI Computer Systems Networking PA
- TestOut Pro > Options: Ethical Hacker, Server, Client, PC, Network, Security, or Cyber Defense
- Fortinet Network Security Expert (NSE)
- Cisco CCENT (Certified Cisco Entry Network Technician)
- Cisco CCNA (Certified Cisco Network Associate)
- CompTIA A+ (Prep)
- CompTIA Network+ (Prep)
- C-Tech Copper, Fiber and Smart Home- Home Entertainment certifications
- OSHA Certification

RELATED OCCUPATIONS: Desktop Support Specialist, IT Support Specialist, Helpdesk Technician, Network Administrator, Security Specialist, IT Systems Administrator, Ethical Hacker, Information Security Analyst, IT Security Consultant.

VIDEO, SOUND AND MUSIC PRODUCTION (Grade 10-12)

(TEC9042F)

CAREER CLUSTER: ARTS & COMMUNICATIONS

ARTICULATION AGREEMENT: CIP CODE 10.9999

COURSE DESCRIPTION: This program prepares individuals to apply knowledge and skills in the field of multimedia technology. Multimedia technology specialists provide services in a variety of areas associated with typography, web and graphic design, video, audio, television production, animation, and photography.

The Video, Sound, and Music Production Program is a hands-on course where students acquire skills in video and audio production through the operation of state-of-the-art digital video and audio studio production equipment. Students will be able to combine their artistic creativity with technological knowledge to produce original video and audio productions such as newscasts, music videos, short films, music recording projects, and audio / video post-production projects.

In this field students will work in exciting environments and work settings that include television and radio stations, sporting events, concerts, film sets, recording studios, and theaters. This program prepares students to apply technical knowledge and skills to the production of sound recordings as either finished products or as components of traditional or emerging music productions, film and video productions, live sound productions, broadcasts, video game productions, or mixed media productions.

POTENTIAL CERTIFICATIONS: Students in the VSM Production Program may earn the following certifications:

- NOCTI Communication Technologies PA
- OSHA Certification

RELATED OCCUPATIONS: Video Producer, Audio Producer, Broadcast Technician, Sound Engineer, Foley Artist, Sound Mixers, Field Technicians, Camera Operators, Cinematographer, Videographer, Sound and Video Editor.

VISUAL COMMUNICATIONS (Grade 10-12)

(TEC9040F)

CAREER CLUSTER: ARTS & COMMUNICATIONS

ARTICULATION AGREEMENT: CIP CODE 50.0402

COURSE DESCRIPTION: This is a program in the applied visual arts that focuses on the general principles and techniques for effectively communicating ideas and information, and packaging products, in digital and other formats to business and consumer audiences, and that may prepare individuals in any of the applied art media. Students in the Visual Communications program pursue studies in traditional media such as watercolor, pencil drawing, pen and ink, and air brush with an emphasis on illustration. Work is also done in advanced color theory and design theory.

As reflected in the trend in the graphic design field, there is an ever-increasing emphasis on computer-generated art. Students work with Macintosh computers using such programs as Illustrator, Photoshop, InDesign, and 3D Software.

POTENTIAL CERTIFICATIONS: Students in the Visual Communications Program may earn the following certifications:

- NOCTI Commercial and Advertising Art PA
- OSHA Certification

RELATED OCCUPATIONS: Digital Designer, Multimedia Designer, Print Designer, App and Digital Platform Designer, Web Design and SECO, Social Media Designer, Online Producer, Internet Marketing Consultant, Photographer and Videographer, Fine Artist, Illustrator, Fashion Designer.

EXERCISE SCIENCES AND REHABILITATION THERAPY (Grade 10-12)

(TEC9049F)

CAREER CLUSTER: HEALTH SCIENCES

ARTICULATION AGREEMENT: CIP CODE 51.2604

COURSE DESCRIPTION: The Exercise Sciences and Rehabilitation Therapy program is a 2-year program for 11th and 12th-grade students and designed for several technical fields related to kinesiology. Instruction includes theory and applications related to strength training and high intensity training, weight management, nutrition, resistance training, exercise programming, exercise physiology, mental health and wellness, pathophysiology, athletic training, injury recognition and management, rehabilitation and restorative care, medical terminology. Students will learn to design safe and effective exercise prescriptions, conduct individual exercise programs, and fitness testing. Students with an eager aptitude for the sciences, specifically Biology, will thrive in this program.

Students will prepare for employment in a wide variety of settings that include assisted care living facilities, fitness clubs, hospitals, corporate wellness programs, strength and conditioning, and clinical rehabilitation programs. In addition, the program serves as a strong foundation for students wishing to pursue advanced degrees in the field of exercise science or enter professional disciplines such as physical or occupational therapy. Specific healthcare certifications, dual-enrollment college credit and clinical opportunities are included in the program.

POTENTIAL CERTIFICATIONS: Students in the Exercise Sciences and Rehabilitation Therapy Program may earn the following certifications:

- Personal Training Certification (ACSM)
- CareerSafe OSHA Certification for Healthcare Workers
- Emergency Care and Safety Institute (ESCI) Certifications for the following:
 - First Aid
 - Healthcare Provider CPR
 - Sports Aid and Injury Prevention
 - Standard First Aid, CPR, AED

RELATED OCCUPATIONS: Physical Therapist, Physical Therapy Assistant, Occupational Therapist, Athletic Trainer, Personal Trainer, Nutritionist, Strength and Conditioning Coach, Speech Language Pathologist, Physical Therapy Aide.

HEALTHCARE SCIENCES (Grade 10-12)

(TEC9023F)

CAREER CLUSTER: HEALTH SCIENCES

ARTICULATION AGREEMENT: CIP CODE 51.0899

COURSE DESCRIPTION: This is a program with a combination of subject matter and experiences designed to prepare individuals for entry level employment in a minimum of three related health occupations under the supervision of a licensed health care professional. Instruction consists of core course content with clinical experiences in one or two health related occupations. The core curriculum consists of planned courses for introduction of health careers, basic anatomy and physiology, medical terminology, legal and ethical aspects of health care and communications, and at least three planned courses for the knowledge and skills for the occupational area such as medical assisting, ward clerk, nursing assisting, etc.

The Healthcare Sciences Program offers a core academic curriculum and skill-based competency tasks linked to careers in the health care industry. This program provides the knowledge base for Health Occupations careers, as well as preparing the student to enter the health care system as a competent assistant to the health professional.

The clinical experience the students receive is an integral part of the program; providing the students with the laboratory setting to perfect their procedures and hands-on experience in local health care agencies as well as helping them to develop communication skills that are essential in today's job market.

POTENTIAL CERTIFICATIONS: Students in the Healthcare Sciences Program may earn the following certifications:

- AHA (American Heart Association) Healthcare Provider BLS CPR
- DPW (Department of Public Welfare) Certificate for Patient Care Assistant
- Medical Assisting
- Nurse Assisting and EKG Technician from AMCA (American Medical Certification Association)
- Naloxone Now Opioid Overdose Prevention Certification (through MCCC)

RELATED OCCUPATIONS: Physical Therapist, Radiologist Technologist, Surgical Technician, Home Health Aide, Occupational Therapist, Certified Nurse's Aide, Respiratory Therapist, Pharmacy Technician, Veterinary Assistant, Registered Nurse, Physician Assistant, Physician, and Nurse Practitioner.

H ALLIED HEALTH (Grade 12)

(TEC9019F) DUAL ENROLLMENT (BIO 104)



CAREER CLUSTER: HEALTH SCIENCES

ARTICULATION AGREEMENT: N/A



COURSE DESCRIPTION: Allied Health Technology is an Honors College Prep course designed for 12th grade students who wish to pursue a career in healthcare professions.

This is a program with a combination of subject matter and experiences designed to prepare individuals for entry level employment in a minimum of three related health occupations under the supervision of a licensed health care professional. Instruction consists of core course content with clinical experiences in one or two health related occupations. The core curriculum consists of planned courses for introduction of health careers, basic anatomy and physiology, medical terminology, legal and ethical aspects of health care and communications, and at least three planned courses for the knowledge and skills for the occupational area such as medical assisting, ward clerk, nursing assisting, etc. ***Students who choose to pursue the dual enrollment option will earn 3 college credits from Montgomery County Community College.**

POTENTIAL CERTIFICATIONS: Students in the Honors Allied Health Program may earn the following certifications:

- ASHI (American Safety & Health Institute) CPR Pro and First Aid
- DPW (Department of Public Welfare) Certificate for Patient Care Assistant
- Medical Assisting
- Nurse Assisting and EKG Technician from AMCA (American Medical Certification Association)
- CareerSafe OSHA Certification for Healthcare workers

RELATED OCCUPATIONS: Physician, Pharmacist, Physician Assistant, Radiologist, Physical Therapist, EKG Technician, Nurse Practitioner, Medical Lab Technician, and Surgical Technician.

BARBERING (Grade 10-12)

(TEC9054)

CAREER CLUSTER: HUMAN SERVICES

ARTICULATION AGREEMENT: CIP CODE 12.0402

COURSE DESCRIPTION: The Barbering program prepares individuals to cut, trim, and style hair also includes massaging the head in preparation to practice as licensed barbers in a professional setting. Includes instruction in hair cutting, blending, fading, style, clippers, scissors, razors, shop management, sanitation, safety, customer service, and applicable professional and labor laws and regulations. The basic course requires 1250 hours of study and takes three years to complete where students learn the theory of anatomy of the head, face, chemicals, coloring, sterilization, sanitation, and safety precautions in the field. Students are also trained in the art of customer service.

The Barbering program teaches the most scientific approach with a focus on precision and technique. Students are trained in specializations such as texturing, layering, fading, blending, color, straight razor, shaving, beard and mustache shaping, hot towel treatment, and facial massage. Students may participate in our internship program, which consists of spending several days a week working with community clients during school hours. Students can demonstrate skills while working towards their goals for licensing requirements in the state of Pennsylvania.

POTENTIAL CERTIFICATIONS: Students in the Cosmetology Program may earn the following certifications:

- NOCTI Barber PA
- Barber PA License
- Barbicide Certification
- Barber Teacher
- 650 Hours towards Barber License after completion of PA Cosmetology License

RELATED OCCUPATIONS: Hairstylist, Master Barber, Barbershop Owner/Operator/Manager, Hair Colorist, Cosmetologist, Beard Grooming Specialist, Esthetician, Barber Instructor/Trainer, Mobile Barber, and Barber Supply Sales Representative.

COSMETOLOGY (Grade 10-12)

(TEC9011F)

CAREER CLUSTER: HUMAN SERVICES

ARTICULATION AGREEMENT: CIP CODE 12.0401

COURSE DESCRIPTION: The Cosmetology program prepares individuals to cut, trim, and style scalp, facial, and body hair; apply cosmetic preparations; perform manicures and pedicures; massage the head and extremities and prepare for practice as licensed cosmetologists in specialized or full-service salons. Includes instruction in hair cutting and styling, manicuring, pedicuring, facial treatments, shampooing, chemical applications, esthetics, shop management, sanitation and safety. The basic course requires 1250 hours of study and takes three years to complete where students learn the theory of anatomy of the head, face, hands and feet, chemicals, coloring, sterilization, sanitation and safety precautions in the field. Students are also trained in the art of customer service and applicable professional labor laws and regulations.

The Cosmetology program teaches the most scientific approach in hair designing, manicuring and esthetics today. Students are trained in specializations such as nail sculpturing, skin care, hair cutting, coloring, styling, permanent waving and ethnic styling. Students may participate in our internship program, which consists of spending several days a week in our own salon during school hours working towards their goals for licensing requirements in the state of Pennsylvania.

POTENTIAL CERTIFICATIONS: Students in the Cosmetology Program may earn the following certifications:

- NOCTI Cosmetology/Cosmetologist PA
- Cosmetologist PA License
- Milady RISE Infection Control Certification
- Barbicide Certification
- Cosmetology Teacher
- Nail Technician
- Esthetic Technician
- 650 Hours towards Barber License after completion of PA Cosmetology License

RELATED OCCUPATIONS: Hairstylist, Esthetician, Manicurist, Cosmetologist, Shampoo Technician, Stylist Assistant, Color Specialist, Make Up Artist, Retail Specialist, Salon Owner, Salon Manager.

EARLY CHILDHOOD EDUCATION (Grade 10-12)
(TEC9017F) DUAL ENROLLMENT (EDU 100; EDU 210)



CAREER CLUSTER: EDUCATION & TRAINING

ARTICULATION AGREEMENT: CIP CODE 19.0708



COURSE DESCRIPTION: This program prepares individuals for a variety of occupations in childcare and guidance, often under the supervision of professional personnel in child or day care centers. This program includes instruction in growth and development; nutrition; planning and management; safety; behavior guidance; play activities; child abuse and neglect; parent, child personal relationships; learning experiences for children; and laws, regulations and policies relating to childcare services. ***Students who choose to pursue the dual enrollment option will earn 6 college credits (two courses) from Montgomery County Community College.**

The Early Childhood Education program is designed for 10th, 11th and 12th grade students who have a sincere desire to teach and care for young children. It prepares students for either an entry-level position in the childcare industry or to pursue a college degree in early childhood education or elementary education. Students observe and interact in a variety of early childhood settings including elementary schools, childcare centers, Head Start programs, and early intervention programs as well as our own on-site preschool, "Little Hands."

POTENTIAL CERTIFICATIONS: Students in the Early Childhood Education Program may earn the following certifications:

- Mandated Reporter Training
- Health and Safety Training (Through Better Kid Care)
- First Aid/ CPR
- CDA Ready Certification (see Steps Sheet for Explanation)
- FEMA IS: 366.A- Planning for the Needs of Children in Disasters

RELATED OCCUPATIONS: Early Childhood Teacher, Elementary School Teacher, School Counselor, Teacher's Assistant, Childcare Assistant, Nanny, Assistant Group Supervisor, Family Home Childcare Provider.

HONORS SECONDARY EDUCATION ACADEMY (Grade 11-12)
(TEC9044F) DUAL ENROLLMENT (ENG 101)



CAREER CLUSTER: EDUCATION & TRAINING

ARTICULATION AGREEMENT: N/A



COURSE DESCRIPTION: The Secondary Education Academy is an Honors College Prep course designed for high school juniors and seniors aspiring to be educators. The course consists of 7.5 hours/week divided between classroom instruction and internship experience which results in approximately 180 hours of instruction and 90 hours of internship experience. The field experiences are with certified teachers at secondary grade levels; a one-year program. ***Students who choose to pursue the dual enrollment option will earn 3 college credits from Montgomery County Community College.**

INTEGRATED ENGLISH: Classroom instruction includes college level English 101 whereas students may opt to earn Dual Enrollment English credit through Montgomery County Community College for an extra fee. The embedded English 101 dual enrollment component also satisfies PW's 12th grade English requirement.

ADMISSION CRITERIA:

- Must have applied or intend to apply to a two or four-year college with the goal of earning a degree in education
- All required clearances must be attainable
- Must be in good academic standing to graduate and acquire a counselor recommendation
- Must complete the Teacher Academy (CMTHS) application
- Must have transportation available to attend rotations
- Must complete a preliminary interview screening with CMTHS staff

POTENTIAL CERTIFICATIONS: Students in the Honors Teacher Academy Program may earn the following certifications:

- Educators Rising Micro-Credentials: Anti-Bias Training
- Educators Rising Micro-Credentials: Classroom Culture
- Educators Rising Micro-Credentials: Collaboration
- Educators Rising Micro-Credentials: Formative Assessment
- Educators Rising Micro-Credentials: Learner Engagement

RELATED OCCUPATIONS: High School Teacher, Middle School Teacher, Math Specialist, Reading Specialist, School Counselor, Special Education Teacher, School Principal/Assistant Principal, Teacher's Assistant.

PUBLIC SAFETY (Grade 10-12)
(TEC9035F) DUAL ENROLLMENT (CIS 100)



CAREER CLUSTER: LAW & PUBLIC SAFETY

ARTICULATION AGREEMENT: CIP CODE 43.0107



COURSE DESCRIPTION: This is a program that 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 and other routine law enforcement responsibilities. ***Students who choose to pursue the dual enrollment option will earn 3 college credits from Montgomery County Community College.**

The program is based at Central Montco Technical High School with many of the learning experiences performed at off-campus locations such as the Montgomery County Fire Academy, local police departments and local businesses. Mastering of the competencies will be accomplished in supervised simulated situations.

POTENTIAL CERTIFICATIONS: Students in the Public Safety Program may earn the following certifications:

- NOCTI Criminal Justice
- First Aid
- CPR and AED
- Protective Safety Systems
- Defensive Tactics
- Fire Extinguisher Certificate
- FEMA: Introduction to Incident Command System
- Ladder Safety Training Certification

RELATED OCCUPATIONS: Police Officer, Security Officer, Correction Officer, Fish and Wildlife Protector, Safety Supervisor, Code Enforcement Officer, Safety Inspector, Industrial Hygienist, Environmental Protection Officer.

BAKING AND PASTRY ARTS (Grade 10-12)
(TEC9038F)

CAREER CLUSTER: HOSPITALITY & TOURISM

ARTICULATION AGREEMENT: CIP CODE 12.0501

COURSE DESCRIPTION: This is an instructional program with specialized classroom and practical work experiences associated with the preparation of breads, crackers, cakes, pies, pastries and other bakery products for retail distribution, consumption in a commercial food service establishment or special functions. Instruction includes making, freezing and handling of baking products, decorating and displaying baking items at a retail counter display and packaging of merchandise. This is a comprehensive program designed to prepare individuals for employment in a variety of occupations in the baking industry.

The Baking and Pastry Arts Program is a continuation of the 1st year Culinary Arts/Baking and Restaurant Practices Program which offers a cutting-edge curriculum for all students interested in culinary arts, baking, service management and related fields to study in our state-of-the-art kitchen and restaurant. Students can demonstrate skills at our in-house restaurant and catering program while providing services to residents of the local community. We also offer a full-service bakery with all aspects run entirely by our students.

POTENTIAL CERTIFICATIONS: Students in the Baking and Pastry Arts Program may earn the following certifications:

- NOCTI Retail Commercial Baking
- ServSafe Food Handler Certification
- ServSafe/Manager Food Safety Certification

RELATED OCCUPATIONS: Pastry Chef, Line Cook, Bakery Manager/Owner, Banquet Chef, Caterer, Baker, Bread Maker, Food Stylist.

CULINARY ARTS (Grade 10-12)

(TEC9013F) DUAL ENROLLMENT (FHD 118)

CAREER CLUSTER: HOSPITALITY & TOURISM

ARTICULATION AGREEMENT: CIP CODE 12.0508



COURSE DESCRIPTION: This is an instructional program that prepares students for employment related to institutional, commercial, or self-owned food establishments or other food industry occupations. Instruction and specialized learning experiences include theory, laboratory and work experience related to planning, selecting, preparing, and serving of quantity food and food products; nutritive values; use and care of commercial equipment; safety; and sanitation precautions. Instructional skills are provided to those desiring to become employed in all areas of the food service industry at entry level. ***Students who choose to pursue the dual enrollment option will earn 3 college credits from Pennsylvania College of Technology.**

The Culinary Arts and Restaurant Practices Program offers a cutting-edge curriculum for all students interested in culinary arts, baking, service management and related fields to study in our state-of-the-art kitchen and restaurant. Students can demonstrate skills at our in-house restaurant and catering program while providing services to residents of the local community.

POTENTIAL CERTIFICATIONS: Students in the Culinary Arts Program may earn the following certifications:

- NOCTI Culinary Arts Level 2 Cook
- Heartsaver CPR
- Heartsaver First Aid
- ServSafe Food Handler Certification

RELATED OCCUPATIONS: Executive Chef, Line Cook, Restaurant Manager/Owner, Banquet Chef, Caterer, Dietician, Television Chef, Food Wholesaler, Food Stylist, Culinary Arts Educator, and Server/Hospitality.

AUTOMOTIVE TECHNOLOGY (Grade 10-12)

(TEC9002F)

CAREER CLUSTER: TRANSPORTATION, DISTRIBUTION, AND LOGISTICS

ARTICULATION AGREEMENT: CIP CODE 47.0604

COURSE DESCRIPTION: This is an instructional program that prepares individuals to apply technical knowledge and skills to engage in the service and maintenance of all types of automobiles and light trucks. This program includes instruction in the diagnosis and testing, including computer analysis, of malfunctions in and repair of engines, fuel, electrical, cooling and brake systems, drive trains and suspension systems. Instruction is also given in the adjustment and repair of individual components and systems such as fuel system components and air conditioning and includes the use of technical repair information and the procedures for state inspection.

POTENTIAL CERTIFICATIONS: Students in the Automotive Technology Program may earn the following certifications:

- NOCTI Automotive Technology PA
- SP/2: Mechanical Safety, Mechanical Pollution Prevention, Hazardous Training
- NAPA E-learning Course
- Valvoline Engine Oil & Chemicals Certification
- Automotive Service Excellence (ASE) Student Certification
- Certified PA Safety Inspector
- Certified PA Emissions Inspector
- EPA609 Certification

RELATED OCCUPATIONS: Auto Technician, Auto Parts Sales, State Emissions Inspector, General Line Technician, Service Writer, Transportation Inspector

BUILDING TRADES (Grade 10-12)

(TEC9047F) DUAL ENROLLMENT (BCT 103, BCT 109)

CAREER CLUSTER: ARCHITECTURE & CONSTRUCTION

ARTICULATION AGREEMENT: CIP CODE 46.0401



COURSE DESCRIPTION: This is an instructional program that prepares individuals to apply technical knowledge and skills in the maintenance and repair of residential and commercial buildings. Instruction includes the basics of carpentry, electrical, millwork, plumbing, painting, minor sheet metal, masonry, tile setting, heating, and OSHA safety standards. The Building Trades Program is an excellent option for students interested in a career related to residential and commercial construction.

***Students who choose to pursue the dual enrollment option will earn 6 college credits (two classes) from Pennsylvania College of Technology.**

Topics of study include safety, building and property management carpentry and repairs, portable power tools, tools and machine maintenance, structures (roofs, floors, stairs, doors windows, walls), masonry (concrete, floor and wall tile), residential electrical circuits, residential plumbing, finishing materials and environmental control systems.

POTENTIAL CERTIFICATIONS: Students in the Building Trades Program may earn the following certifications:

- NOCTI Building/Property Maintenance PA
- OSHA 10-hour Certification
- Gastite Certification
- Tracpipe Certification
- NCCER Credentials (various trades)
- Ladder Safety Certification

RELATED OCCUPATIONS: Carpenter, Cement Mason, Construction Manager, Electrician, HVAC Technician, Plumber, General Contractor, Architect, Construction Engineer, Job Site Supervisor.

COLLISION REPAIR TECHNOLOGY (Grade 10-12)

(TEC9005F)

CAREER CLUSTER: TRANSPORTATION, DISTRIBUTION, AND LOGISTICS

ARTICULATION AGREEMENT: CIP CODE 47.0603

COURSE DESCRIPTION: This is an instructional program that prepares individuals to apply technical knowledge and skills to repair damaged automotive vehicles such as automobiles and light trucks. Students learn to examine damaged vehicles and estimate cost of repairs; remove, repair and replace upholstery, accessories, electrical and hydraulic window and seat operating equipment and trim to gain access to vehicle body and fenders; remove and replace glass; repair dented areas; replace excessively damaged fenders, panels and 5 grills; straighten bent frames or unibody structures using hydraulic jacks and pulling devices; and file, grind and sand repaired surfaces using power tools and hand tools. Students refinish surfaces by painting with primer and a finish coat.

Collision Repair Technicians are skilled workers who repair minor and major defects such as scratches, chips, dents, surface rust and rust outs. The technician also welds torn metal, replaces damaged parts, and estimates repairs. A person in this trade should have the desire to work with metal and metal finishings such as paints, solvents, and waxes.

POTENTIAL CERTIFICATIONS: Students in the Collision Repair Technology Program may earn the following certifications:

- NOCTI Collision Repair and Refinishing Technology
- Hazardous Material Storage and Disposal
- S/P2 Safety and Pollution Prevention
- I-CAR Certification(s)
- PPG Online Training - Refinishing Sheet Metal/Finishing Sheet Metal

RELATED OCCUPATIONS: Frame Equipment Specialist, Repair Technician, Glass Specialist, Insurance Estimator, Customizing Agent, Auto Body Technician, Industrial Spray Painter, Sales/Auto Body, Car Detail Specialist, Auto Refinisher.

LANDSCAPE DESIGN AND CONSTRUCTION (Grade 10-12)

(TEC9027F) DUAL ENROLLMENT (HRT 101)

CAREER CLUSTER: ARCHITECTURE & CONSTRUCTION

ARTICULATION AGREEMENT: CIP CODE 01.0601



COURSE DESCRIPTION: This is an instructional program having a combination of organized subject matter and practical experiences that generally prepares individuals to produce, process and market plants, shrubs and trees used principally for ornamental, recreational and aesthetic purposes and to establish, maintain and manage horticultural enterprises. Instruction emphasizes knowledge, understanding and application important to establishing, maintaining, and managing horticultural enterprises such as arboriculture, floriculture, greenhouse operation and management, landscaping, nursery operation and management, and turf management. ***Students who choose to pursue the dual enrollment option will earn 3 college credits from Pennsylvania College of Technology.**

The Landscape Design & Construction Program offers hands-on learning that prepares students in all phases of landscape/hardscape design and management. With an emphasis on residential home installation, students will learn the proper use of hand and power tools, skid loaders, construction materials, measuring and estimating, blueprint and plan reading, and job site safety.

POTENTIAL CERTIFICATIONS: Students in the Landscape Design Program may earn the following certifications:

- NOCTI Landscaping PA
- Bobcat Skid-Steer Loader Operator Training Course Certificate
- Applied Horticulture PA
- OSHA Certification – Agriculture
- Pennsylvania Pesticide Applicator Certification

RELATED OCCUPATIONS: Landscaper, Groundskeeper, Landscape Architect, Supervisor of Landscaping, Soil and Water Conservationist, Nursery Worker/Sales, Groundskeeper, Greenhouse Manager, Independent Contractor, Construction Manager.

Sample CMTHS Student Course Sequence in the 5 Block

ACADEMIC

GRADE 10			GRADE 11		GRADE 12	
BLOCK 1	<u>SOC</u> HUMAN GEO	<u>ENG</u> ENGLISH 3	<u>SOC</u> US HISTORY	<u>ENG</u> ENGLISH 4	<u>SOC</u> US GOVERNMENT	<u>ENG</u> ENGLISH 5
BLOCK 2	<u>MAT</u> INTEGRATED 3	<u>MAT</u> INTEGRATED 4	<u>MAT</u> INTEGRATED 5	<u>HPE</u> HEALTH/FIT 2	ELECTIVE	ELECTIVE
BLOCK 3	<u>SCI</u> CHEMISTRY	ELECTIVE	<u>SCI</u> PHYSICS	ELECTIVE	ELECTIVE	ELECTIVE
BLOCK 4	CMTHS	CMTHS	CMTHS	CMTHS	CMTHS	CMTHS
BLOCK 5	CMTHS	CMTHS	CMTHS	CMTHS	CMTHS	CMTHS

LEARNING SUPPORT

GRADE 10			GRADE 11		GRADE 12	
BLOCK 1	CMTHS	CMTHS	CMTHS	CMTHS	CMTHS	CMTHS
BLOCK 2	CMTHS	CMTHS	CMTHS	CMTHS	CMTHS	CMTHS
BLOCK 3	<u>SCI</u> APPLIED BIO-S1	<u>SCI</u> APPLIED BIO-S2	<u>HPE</u> HEALTH/FITNESS 2	<u>ENG</u> ENGLISH 4L	<u>SCI</u> ENVIRONMENTAL	<u>ENG</u> ENGLISH 5L
BLOCK 4	<u>SOC</u> HUMAN GEO L	<u>MAT</u> INTEGRATED 3M	<u>SOC</u> US HISTORY L	<u>MAT</u> INTEGRATED 4M	<u>SOC</u> US GOV L	<u>MAT</u> COLLEGE PREP
BLOCK 5	<u>ENG</u> ENGLISH 3L-S1	<u>ENG</u> ENGLISH 3L-S2	ELECTIVE	ELECTIVE	ELECTIVE	ELECTIVE

HONORS

GRADE 10			GRADE 11		GRADE 12	
BLOCK 1	<u>SOC</u> H HUMAN GEO	<u>ENG</u> H ENGLISH 3	<u>SOC</u> H US HISTORY	<u>ENG</u> H ENGLISH 4	<u>SOC</u> H US GOV	<u>ENG</u> H ENGLISH 5
BLOCK 2	<u>MAT</u> H INTEGRATED 3	<u>MAT</u> H INTEGRATED 4	<u>MAT</u> H INTEGRATED 5	<u>HPE</u> HEALTH/FIT 2	<u>MAT</u> H CALCULUS	ELECTIVE
BLOCK 3	<u>SCI</u> H CHEMISTRY	<u>WLA</u> H SPANISH 3	<u>SCI</u> H PHYSICS	ELECTIVE	ELECTIVE	ELECTIVE
BLOCK 4	CMTHS	CMTHS	CMTHS	CMTHS	CMTHS	CMTHS
BLOCK 5	CMTHS	CMTHS	CMTHS	CMTHS	CMTHS	CMTHS