



MIDDLE BUCKS INSTITUTE OF TECHNOLOGY  
PROGRAM OF STUDIES



Discover  
Your Future!

2015-2016  
[www.mbit.org](http://www.mbit.org)





2740 Old York Road • Jamison, PA 18929

December 2014

Dear Parents/Guardians:

Allow me to introduce you to Middle Bucks Institute of Technology (MBIT). As a campus of your school district, your student has the unique opportunity to complete course work at our school **tuition free** while in high school. Students across America are recognizing the importance of developing a technical foundation, along with academic skills, before college or work. MBIT continues to be at the forefront of preparing students for greater success in college or in the increasingly competitive workforce. So you may acquaint yourself with our educational programs, the Program of Studies for the 2015-2016 school year follows for your review. Please take this opportunity to learn more about the twenty-three career and technical programs we offer, including our newest program, Sports Therapy and Exercise Management.

Students who are choosing to bundle their electives and enroll at MBIT are realizing such benefits as:

- ✓ Earning industry recognized certifications
- ✓ Earning college credits through numerous articulation agreements with area colleges and universities
- ✓ Confirming their desired career path
- ✓ Securing a solid “Plan B” to ensure multiple opportunities for work in a challenging economy

The best way to fully understand the educational opportunities at MBIT is to experience them firsthand. Therefore, we will be hosting a school-wide **Open House** on **Wednesday, January 7, 2015** from **7:00 p.m. – 9:00 p.m.** In the event of inclement weather, we will reschedule our Open House to Wednesday, January 14, 2015 from 7:00 p.m. – 9:00 p.m. You will have the opportunity to tour the building, meet with teachers, and see students working in the labs.

In addition, there will be MBIT representatives at the Program Planning Nights in every high school in Centennial, Central Bucks, Council Rock, and New Hope-Solebury School Districts. If your student is interested in applying to MBIT, an application form is enclosed. Simply complete the application and forward it to your sending school counselor. The application deadline is **April 1, 2015**. Please note that if your student is currently a student at MBIT, there is no need to complete a new application. A form will be sent home with your student in February/March for you to confirm enrollment at MBIT for the next school year.

Please take this opportunity to help secure your student’s future.

Sincerely,

Kathryn Strouse  
Administrative Director

## Mission Statement

**“Preparing tomorrow’s workforce today”**

Discover all that MBIT has to offer by visiting our website.

[www.mbit.org](http://www.mbit.org)



You can also learn more by following MBIT on social media.



MIDDLE BUCKS INSTITUTE OF TECHNOLOGY  
2740 Old York Road, Jamison, PA 18929  
Phone: 215-343-2480 Fax: 215-343-8626

## Table of Contents

<b>Your Campus at Middle Bucks Institute of Technology</b> .....	1
<b>Application and Selection Process</b> .....	1
<b>Program Costs</b> .....	1
<b>Career Assessment</b> .....	2
<b>College and University Connections/SOAR</b> .....	2
<b>Flexible Scheduling Options</b> .....	3
<b>Academic Coursework</b> .....	3
<b>Advancement and Promotion</b> .....	3
<b>The Educational Program – An Overview</b> .....	4
<b>Career Clusters and Pathways:</b> .....	
<b>Architecture &amp; Construction Career Cluster Pathways:</b> .....	
• Building Trades Occupations.....	5
• Computerized Drafting & Engineering Graphics.....	6
• Construction Carpentry.....	7
• Electrical & Network Cabling.....	8
• HVAC & Plumbing Technology.....	9
• Practical Environmental Landscaping.....	10
<b>Arts, A/V Technology &amp; Communications Career Cluster Pathways:</b> .....	
• Commercial Art & Design.....	11
• Multimedia Technology.....	12
<b>Health Science Career Cluster Pathways:</b> .....	
• Dental Occupations.....	13
• Health Occupations.....	14
• Health Sciences.....	15
• Sports Therapy & Exercise Management.....	16
<b>Hospitality &amp; Tourism Career Cluster Pathway:</b> .....	
• Culinary Arts.....	17
<b>Human Services Career Cluster Pathways:</b> .....	
• Cosmetology.....	18
• Early Childhood Care & Education.....	19
<b>Information Technology Career Cluster Pathways:</b> .....	
• Administrative Sciences & Business Technology.....	20
• Networking & Operating Systems Security.....	21
• Web Design & Interactive Media.....	22
<b>Law, Public Safety &amp; Security Career Cluster Pathway:</b> .....	
• Public Safety.....	23
<b>Manufacturing Career Cluster Pathway:</b> .....	
• Welding Technology.....	24
<b>Science, Technology, Engineering &amp; Mathematics Career Cluster Pathway:</b> .....	
• Engineering Related Technology.....	25
<b>Transportation, Distribution &amp; Logistics Career Cluster Pathways:</b> .....	
• Automotive Technology.....	26
• Collision Repair Technology.....	27
<b>Related Programs and Services</b> .....	28-29
<b>Faculty and Staff Profiles</b> .....	30-37

## YOUR CAMPUS AT MIDDLE BUCKS INSTITUTE OF TECHNOLOGY

Middle Bucks Institute of Technology (MBIT) is located in Warwick Township on Old York Road (Rt. 263) in Jamison, Pennsylvania. The picturesque high school campus sits on 58 acres and is supported by Centennial, Central Bucks, Council Rock, and New Hope-Solebury School Districts. Middle Bucks Institute of Technology operates as a school of choice designed for students who are seeking to enhance their educational program with a highly relevant career and technical experience connected directly to the real world of business and industry. Over 400 business and industry advisors review and update the school's educational program annually. The MBIT experience provides students with a blend of classroom theory, technical applications in state-of-the-art laboratories, and off-campus work-based experiences. Students learn and apply reading, writing, mathematics, science, communications, and technology in a way that has personal meaning and career relevance.

The educational program is organized around ten broad career clusters and offers twenty-three state approved career pathway programs. Approximately 800 students attend the daytime program. In addition to secondary students, the school clientele includes approximately 500 adults who are enrolled in daytime, evening, and customized industry training programs. The school operates fall and spring sessions, with a summer enrichment program for middle school students. The staff consists of approximately thirty-four professional educators and thirty support personnel. Instruction is individualized, self-paced, and highly personalized.

Middle Bucks Institute of Technology prepares today's students for tomorrow's emerging technologies and provides students with the competitive edge needed for employment in a global marketplace and success in college.

### APPLICATION AND SELECTION PROCESS

Students must complete the MBIT application process in order to be considered for admission. Selection is based on completion of selected program recommendations, aptitude and achievement scores, interest inventories, attendance records, behavior patterns, emotional stability, a personal essay, and staff recommendations. **A transcript must accompany the MBIT standard application.** Students are accepted based on the aforementioned variables and a quota system by district. Since many programs fill to capacity quickly, students should begin the application process early to ensure that a completed application package is on file at MBIT by **April 1<sup>st</sup> of the year prior to enrollment.** However, applications will be accepted anytime throughout the year. Applications may be obtained within this Program of Studies, from your school counselor, on the MBIT website at [www.mbit.org](http://www.mbit.org), or by calling Middle Bucks Institute of Technology at 215-343-2480.

To apply or obtain more information about secondary programs and services, contact a member of the MBIT counseling staff at 215-343-2480 ext. 249. For more information about adult programs, contact the Adult Education Coordinator at 215-343-2480 ext. 108. You can also visit our website at [www.mbit.org](http://www.mbit.org).

### PROGRAM COSTS

Students are responsible for an activity fee, lab fees (where applicable), tools, supplies, and clothing for their particular program. The approximate costs associated with each program are listed under the "Estimated Program Requirements/Costs" section of each course description.

## CAREER ASSESSMENT

Career assessment services are intended to help secondary students and adults make a career decision by identifying their technical aptitudes and interests, and are available at no charge to secondary students in each of the four sending districts. A testing center has been created at MBIT with staff trained in test administration and analysis. For more information or to have your child tested, please contact either your child's Guidance Counselor or MBIT's Organizational Advancement Coordinator at 215-343-2480 ext. 115.

## COLLEGE AND UNIVERSITY CONNECTIONS

Middle Bucks Institute of Technology has a variety of college and university connections available to students including career pathway articulation agreements. Articulation agreements are in place with many post-secondary institutions including, but not limited to, Bucks County Community College, Culinary Institute of America, Delaware Valley College, Gwynedd Mercy University, Johnson and Wales University, and Pennsylvania College of Technology. Students can earn from six to twelve credits toward an associate's degree or certification at these or other post-secondary institutions. See each career pathway description for specific college connections.

### Articulation Agreement Benefits:

- Save money on college tuition
- Save time by shortening college attendance
- Get on the right career pathway
- Enter the job market ready
- Receive a consistent, seamless education



The mission of SOAR (Students Occupationally and Academically Ready) is to prepare students for college and careers in a diverse, high-performing workforce. SOAR is the career and technical Program of Study (POS) educational plan that articulates the secondary career and technical programs to post-secondary degree, diploma, or certificate programs. SOAR programs prepare today's students for High Priority Occupations (HPO) which include career categories that are in high demand by employers, have higher skills needs, and are most likely to provide a family sustaining wage.

Upon the successful completion of the required academics and technical competencies earned at MBIT, POS students may qualify for several free credits in their major at participating colleges across Pennsylvania. Students interested in the POS program are encouraged to ask whether their chosen program is POS approved. POS pathways provide excellent opportunities for students pursuing a career and technical education at MBIT and beyond.

## **FLEXIBLE SCHEDULING OPTIONS**

Middle Bucks Institute of Technology attempts to accommodate the scheduling needs of all students through a flexible range of options. The school day at MBIT is divided into two sessions: morning (7:45 a.m. to 10:25 a.m.) and afternoon (11:30 a.m. to 2:15 p.m.). Each session is divided into two 80-minute periods for a total of four periods per day. Morning and afternoon session assignments are made by MBIT staff based on each student's educational or achievement level. Most students schedule their educational program at MBIT for two periods (2 hrs. 45 mins.) per day. While our programs are designed to be completed in three years, students with a specific goal may attend for one semester (18 wks.) or one year (36 wks.). If a student's academic schedule does not accommodate any of these options, every attempt will be made to customize a schedule to fit an individual student's unique situation.

## **ACADEMIC COURSEWORK**

All students are expected to schedule a rigorous sequence of academic courses to support their MBIT program and plan for a strong academic foundation. This foundation is necessary to prepare students for success in college and/or career advancement. The specific sequence of science, math, English, and social studies should be discussed with the school counselors at your participating school.

## **ADVANCEMENT AND PROMOTION**

Instruction in all programs at MBIT begins with establishing a core technical foundation of knowledge and skills. The sequential curriculum enables students to build on the foundation of skills established in one level and progress to the next or advanced level. Consequently, students are expected to make continuous and satisfactory progress each year before advancing to the next progressive level. Students mastering a significant number of competencies (e.g., 70%) for their assigned level and achieving a final grade of C or better shall be promoted to the next progressive level the following year. Students unable to achieve this benchmark standard shall be rescheduled into the same level the next year should they consider continuing in the same major field of study. Students who are unable to achieve a minimum standard of 25% task completion or who receive a final grade of F will be required to consider other educational options.

Furthermore, students are expected to supplement their technical program with a thorough sequence of academic courses at their high school. For most students, this constitutes a minimum three (3) years of academic math, four (4) years of academic English, and two (2) years of lab science. Failure to satisfactorily complete a rigorous academic sequence of courses will jeopardize a student's ability to continue in their field of study at MBIT.

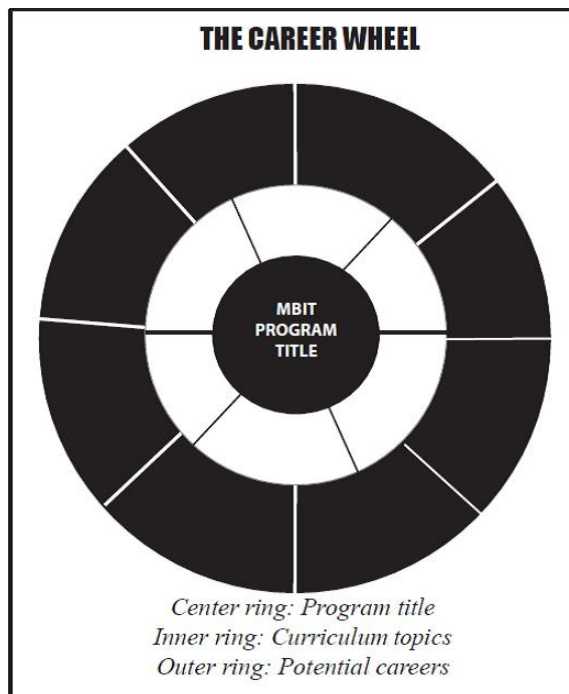
## THE EDUCATIONAL PROGRAM

The educational program at Middle Bucks Institute of Technology is organized into ten broad career clusters and twenty-three career pathways (e.g., major courses of study).

Typically, students enroll in one career pathway as their major field of study, then complete a core set of courses common to the career cluster and a technical sequence of courses related to their career pathway. Students may complete additional specialized courses as they advance beyond the standard secondary curriculum.

*“The career cluster model is recognized as one of the most effective educational initiatives for preparing students for the new economy.”*

### THE CAREER WHEEL



#### Architecture & Construction Career Cluster Pathways:

- ❖ Building Trades Occupations
- ❖ Computerized Drafting & Engineering Graphics
- ❖ Construction Carpentry
- ❖ Electrical & Network Cabling
- ❖ HVAC & Plumbing Technology
- ❖ Practical Environmental Landscaping

#### Arts, A/V Technology Communications Career Cluster Pathways:

- ❖ Commercial Art & Design
- ❖ Multimedia Technology

#### Health Science Career Cluster Pathways:

- ❖ Dental Occupations
- ❖ Health Occupations
- ❖ Health Sciences
- ❖ Sports Therapy & Exercise Management

#### Hospitality & Tourism Career Cluster Pathway:

- ❖ Culinary Arts

#### Human Services Career Cluster Pathways:

- ❖ Cosmetology
- ❖ Early Childhood Care & Education

#### Information Technology Career Cluster Pathways:

- ❖ Administrative Sciences & Business Technology
- ❖ Networking & Operating Systems Security
- ❖ Web Design & Interactive Media

#### Law, Public Safety & Security Career Cluster Pathway:

- ❖ Public Safety

#### Manufacturing Career Cluster Pathway:

- ❖ Welding Technology

#### Science, Technology, Engineering & Mathematics Career Cluster Pathway:

- ❖ Engineering Related Technology

#### Transportation, Distribution & Logistics Career Cluster Pathways:

- ❖ Automotive Technology
- ❖ Collision Repair Technology



# BUILDING TRADES OCCUPATIONS

Instructor: Michael Sykes

CIP Code: 46.0401

This nationally recognized Residential Construction Academy (RCA) accredited instructional program, in conjunction with the National Association of Home Builders (NAHB) and the Home Builders Institute (HBI), prepares students for career paths and employment opportunities in the construction industry through technical knowledge and skills in the building, repair, and general maintenance of residential building and other structures. The program provides instruction in a number of the construction trades including: structural carpentry, finish carpentry, millwork, plumbing, electricity, masonry, concrete, tile setting, installing hardware, heating, ventilation, waterproofing, roofing, siding, drywall, painting, regular tool and machine maintenance, environmental control systems, and record keeping. Students learn to use hand and power tools, construction materials, estimating, blueprint reading, and construction safety. Graduates of this program are prepared for employment in the construction fields or may pursue specialized training through an apprenticeship and/or post-secondary education.



## AVAILABLE INDUSTRY CERTIFICATIONS

American Ladder Institute Safety Training  
Home Builders Institute Residential Construction Academy (RCA) National Registry  
OSHA 10 Hour Safety  
Pennsylvania Builders Association (PBA) Skills Certificate

## COLLEGE ADVANCED CREDITS

Bucks County Community College  
Commonwealth Technical Institute  
Orleans Technical Institute  
Pennsylvania College of Technology

## PROGRAM RECOMMENDATIONS

Ability to adhere to strict safety regulations  
Ability to work in teams  
Ability to work in various weather conditions  
Easily adapts to multiple skill set disciplines  
Hand-eye coordination  
Mathematics fundamentals  
Physical stamina  
Read and interpret technical material at grade level

## PROGRAM REQUIREMENTS/ESTIMATED COSTS

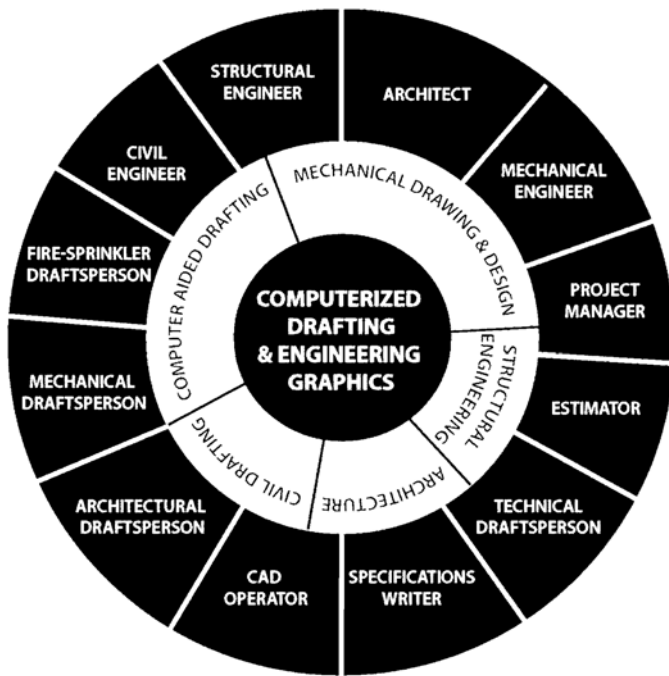
Appropriate uniform attire (approximately \$75)  
OSHA 10 Hour Safety (approximately \$25)  
Tool belt and selected tools (approximately \$150)

# COMPUTERIZED DRAFTING & ENGINEERING GRAPHICS

Instructor: Craig Malinowski

CIP Code: 15.1301

This nationally recognized American Design Drafting Association (ADDA) accredited instructional program prepares students in the areas of: planning, preparing and interpreting mechanical, architectural, structural, civil GPS, electrical/electronic, topographic, piping, tool and die, and other drawings. Instruction is provided in manual pencil drafting and Computer-Aided Design (CAD) techniques using the latest versions of AutoCAD, Autodesk Revit, and Google Sketchup software packages. Instruction in the use of reproduction materials, equipment and processes, development of detailed drawings and 3D solid modeling is provided. This program meets industry standards through curriculum, professional development and state-of-the-art equipment. Students complete an architectural house project, which includes working drawings, specifications, 3-dimensional perspective rendering, and a scale model. Each student develops a professional portfolio. This program is designed for students who plan to pursue an associate or baccalaureate degree in engineering or architecture.



## AVAILABLE INDUSTRY CERTIFICATIONS

American Design Drafting Association Certified Drafter  
Green Advantage  
OSHA 10 Hour Safety

## COLLEGE ADVANCED CREDITS

Art Institute of Pittsburgh  
Bucks County Community College  
ITT Technical Institute  
Pennsylvania College of Technology

## PROGRAM RECOMMENDATIONS

Basic computer skills  
Read and interpret technical material at grade level

## PROGRAM REQUIREMENTS/ESTIMATED COSTS

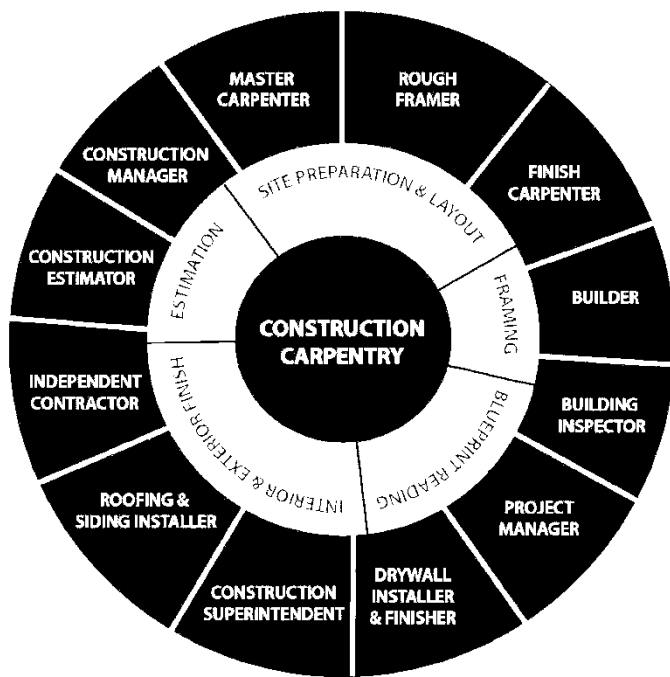
Appropriate uniform attire (approximately \$12)  
OSHA 10 Hour Safety (approximately \$25)

# CONSTRUCTION CARPENTRY

Instructor: Anthony Rogers

CIP Code: 46.0201

This nationally recognized Residential Construction Academy (RCA) accredited instructional program, in conjunction with the National Association of Home Builders (NAHB) and the Home Builders Institute (HBI), prepares students in all phases of building construction including: site layout, footing and foundation construction, framing systems, exterior finishes, insulation, drywall, finish carpentry and cabinet installations, all with emphasis on residential home construction. Students also learn the proper use of hand and power tools, construction materials, estimating, blueprint reading, and construction safety. In addition, students receive core curriculum training through the National Center for Construction Education and Research (NCCER) culminating in certification opportunities. A full-scale student-built house is constructed as a project in which advanced level students bring all their skills together as a culminating activity. Students will work in teams and under a variety of real occupational conditions. Students completing this program will be prepared to begin entry-level employment in construction carpentry and related trade areas. Students will also have the technical skills to pursue an associate or baccalaureate degree in construction-related fields such as construction technology.



## AVAILABLE INDUSTRY CERTIFICATIONS

NCCER Carpentry Level 1  
NCCER Carpentry Level 2  
Home Builders Institute RCA National Registry  
OSHA 10 Hour Safety  
Pennsylvania Builders Association (PBA) Skills Certificate

## COLLEGE ADVANCED CREDITS

Bucks County Community College  
Triangle Tech  
Pennsylvania College of Technology

## PROGRAM RECOMMENDATIONS

Ability to adhere to strict safety regulations  
Ability to work in teams  
Ability to work in various weather conditions  
Hand-eye coordination  
Mathematics fundamentals  
Physical stamina  
Read and interpret technical material at grade level

## PROGRAM REQUIREMENTS/ESTIMATED COSTS

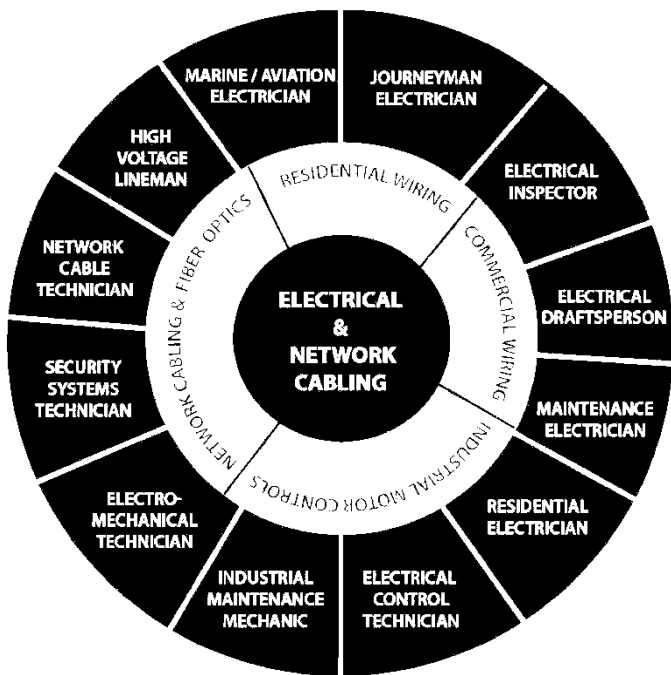
Appropriate uniform attire (approximately \$50)  
OSHA 10 Hour Safety (approximately \$15)  
Tool belt and selected tools (approximately \$50)

# ELECTRICAL & NETWORK CABLING

Instructor: Randall McDowell

CIP Code: 46.0399

This program prepares individuals to apply technical knowledge and skills necessary to lay out, assemble, install, operate, maintain, test and repair electrically-energized residential, commercial and industrial systems, DC and AC motors, generators, transformers, controls, programmable logic controllers, and electrical distribution panels. Instruction emphasizes the application of mathematics and science, electron theory and Ohm's Law. Program instruction includes: single and three phase, delta and wye systems; both low (110 v. – 220 v.) and high voltages (440 v. and higher); reading and interpretations of commercial and residential construction wiring codes and specifications (e.g., National Electrical Code); installation and maintenance of wiring; service; and distribution networks within large construction complexes. Students will also receive instruction in solar and wind generation. They will build circuits powered by a 600 watt solar panel and a 400 watt windmill, and will be able to trace the distribution of the power generated by these green technology components. Student will be prepared for entry-level employment in the electrical and cabling industry in residential, commercial, and industrial settings. This program provides an excellent foundation of technical knowledge for college and/or direct employment.



## AVAILABLE INDUSTRY CERTIFICATIONS

American Ladder Institute Safety Training  
C-Tech Introduction to Network Cabling in Copper Based Systems and Fiber Based Systems  
OSHA 10 Hour Safety  
Pennsylvania Builders Association (PBA) Skills Certificate

## COLLEGE ADVANCED CREDITS

Bucks County Community College  
Triangle Tech  
Pennsylvania College of Technology

## PROGRAM RECOMMENDATIONS

Color perception  
Hand-eye coordination  
Mathematics fundamentals  
Physical stamina  
Read and interpret technical material at grade level

## PROGRAM REQUIREMENTS/ESTIMATED COSTS

Appropriate uniform attire (approximately \$50)  
OSHA 10 Hour Safety (approximately \$20)  
Tool belt and selected tools (approximately \$100)

# HVAC & PLUMBING TECHNOLOGY

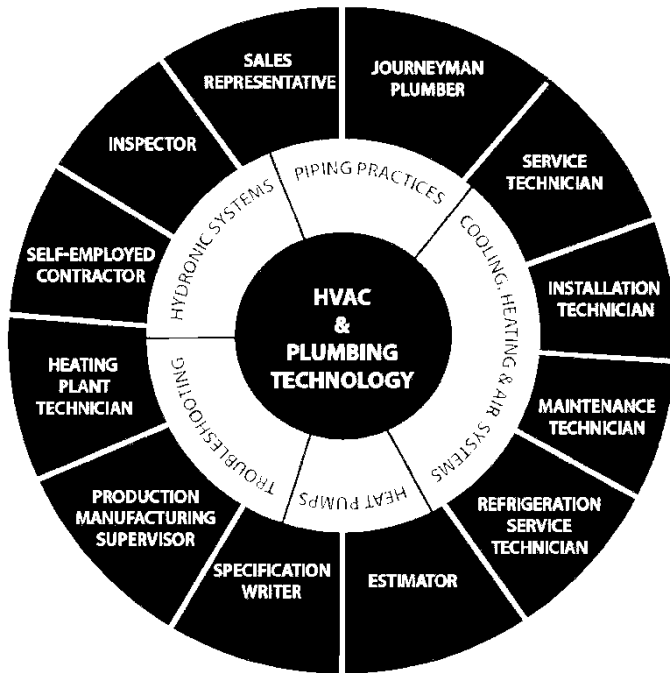
Instructor: Jeffrey Muschlitz

HVAC CIP Code: 47.0201

Plumbing CIP Code: 46.0503

The Heating, Ventilation, and Air Conditioning (HVAC) and Plumbing Technology program has been designed around a business, industry, and national skills standards model. This program uses project-based methods and national performance standards to instruct and evaluate students in a variety of careers in the mechanical and building maintenance industries. Students receive highly technical instruction that prepares them for an entry-level position using their academic and technical knowledge and skills to install, service and maintain heating, air conditioning, and plumbing systems. Instruction includes: daily theory and hands-on application of basic principles of heating, ventilation, air conditioning, refrigeration and plumbing systems; installation of rough-in plumbing systems in frame construction and installation of rough-in plumbing systems in ground; installation of residential plumbing fixtures, garbage disposals, kitchen and bath faucets, hot water heaters, gas fuel piping; installation of residential cooling systems and heating systems; installation of refrigeration systems, blueprint reading, drain cleaning methods, HVAC trouble shooting methods and component replacement. Instruction further includes: the use of ICC 2012 code books for plumbing, mechanical, and fuel/flue gas piping, basic hand tools, power tools and power equipment, refrigerant recovery equipment, manifold gauges, digital multi-meters and testing equipment.

All students choosing this pathway will be enrolled in the Plumbing Technology program for their first year. During the second year of the program, students will focus their studies by selecting either the HVAC pathway or the Plumbing pathway.



## AVAILABLE INDUSTRY CERTIFICATIONS

American Ladder Institute Safety Training  
EPA 608 Certification for Refrigerant, Recycling and Recovery  
Gastite and Tracpipe Flexible Gas Piping  
North American Technicians Excellence (NATE) Core and Specialty Exams  
OSHA 10 Hour Safety  
Pennsylvania Builders Association (PBA) Skills Certificate

## COLLEGE ADVANCED CREDITS

Bucks County Community College  
Pennsylvania College of Technology  
Thaddeus Stevens College of Technology

## PROGRAM RECOMMENDATIONS

Algebra 1  
Color perception  
Hand-eye coordination  
Physical stamina  
Read and interpret technical material at grade level

## PROGRAM REQUIREMENTS/ESTIMATED COSTS

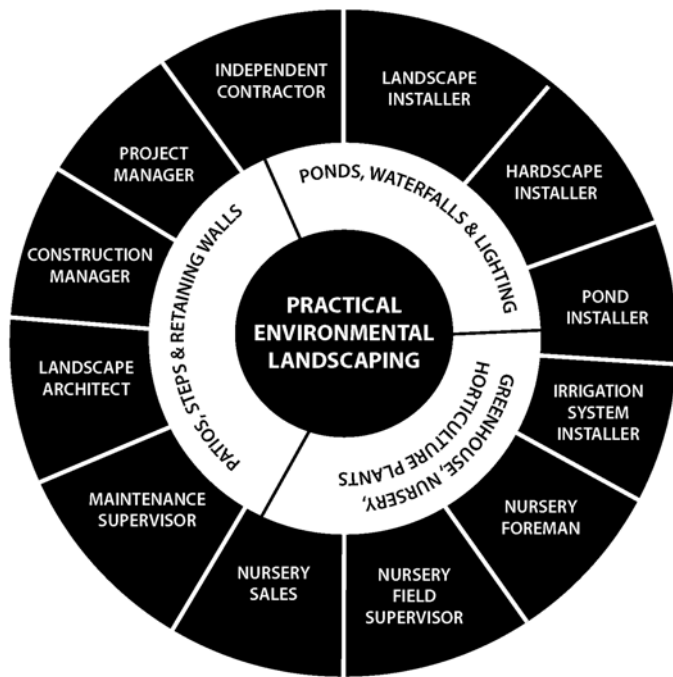
Appropriate uniform attire (approximately \$60)  
OSHA 10 Hour Safety (approximately \$25)  
Refrigerant Recovery License Exam fees (approximately \$25)  
Selected tools and reference materials (approximately \$75)

# PRACTICAL ENVIRONMENTAL LANDSCAPING

Instructor: Gregory Smith

CIP Code: 01.0601

The Practical Environmental Landscaping program emphasizes the knowledge, understanding, and application necessary to establish, maintain, and manage landscaping, hardscaping, and horticultural enterprises. Through hands-on activities, the program will prepare students in all phases of landscape/hardscape design and installation, horticulture, nursery operation, and turf management. With an emphasis on residential home installation, students will learn the proper use of hand and power tools, skid steering loaders, construction materials, measuring and estimating, blueprint/plan reading, and job site safety. Students completing the Practical Environmental Landscaping program will have the knowledge and skills necessary to begin a career in landscaping, hardscaping, nursery and turf management fields. Graduates will also have the ability to pursue associate or baccalaureate degrees in horticulture related fields.



## AVAILABLE INDUSTRY CERTIFICATIONS

National Safe Tractor and Machinery Operator  
OSHA 10 Hour Safety  
Pennsylvania Core Pesticide License  
Pennsylvania Pesticide Application  
PLANET Landscape Safety Training

## COLLEGE ADVANCED CREDITS

Bucks County Community College  
Delaware Valley College  
Pennsylvania College of Technology

## PROGRAM RECOMMENDATIONS

Ability to work in various weather conditions  
Effective written and oral communication skills  
Mathematics fundamentals  
Physical stamina  
Read and interpret technical material at grade level

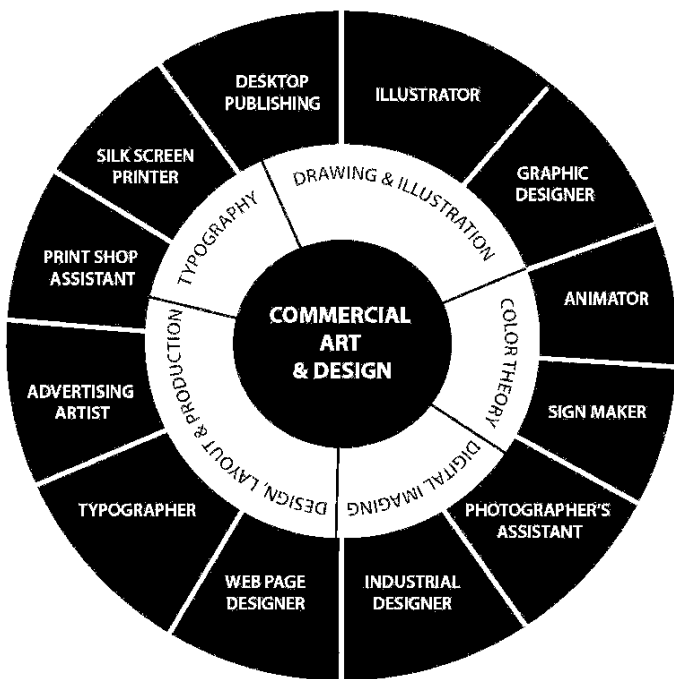
## PROGRAM REQUIREMENTS/ESTIMATED COSTS

Activity fees (approximately \$50)  
Appropriate uniform attire (approximately \$50)  
OSHA 10 Hour Safety (approximately \$18)  
PLANET Landscape Safety Training  
(approximately \$25)

Arts, A/V Technology & Communications Career Cluster  
**COMMERCIAL ART & DESIGN**

Instructor: Bradley Rosenau  
 CIP Code: 50.0402

This program in the visual arts prepares serious art students in how to use artistic techniques to visually communicate ideas and information to business and consumer audiences using graphics and illustrations for print, web, and video media. The structure of the class simulates a professional graphic design studio. The course will develop an art student's skill and knowledge in the foundations of commercial art and allow them to explore, in depth, a wide variety of art techniques and processes in both traditional and state-of-the-art simulations including: hand drawing and illustration, color theory and application, digital imaging and digital file management, design layout and production, typography, digital photography, silk screen printing techniques, safety and the professional preparation of both traditional and electronic portfolios for the workforce or college. Software applications include the Adobe Creative Suite: Photoshop, Illustrator, InDesign, After Effects, and Fireworks, along with iLife software. This program provides an excellent foundation of technical knowledge for college and/or direct employment.



**AVAILABLE INDUSTRY CERTIFICATIONS**

Adobe Certified Associate-Visual Communication

**COLLEGE ADVANCED CREDITS**

Art Institute of Pittsburgh  
 Bucks County Community College  
 Hussian School of Art  
 Pennsylvania College of Technology

**PROGRAM RECOMMENDATIONS**

Basic computer skills  
 Color perception  
 Creative/artistic ability  
 Knowledge of geometric concepts and spatial relationships  
 Mathematics fundamentals, including linear measurements  
 Read and interpret technical material at grade level

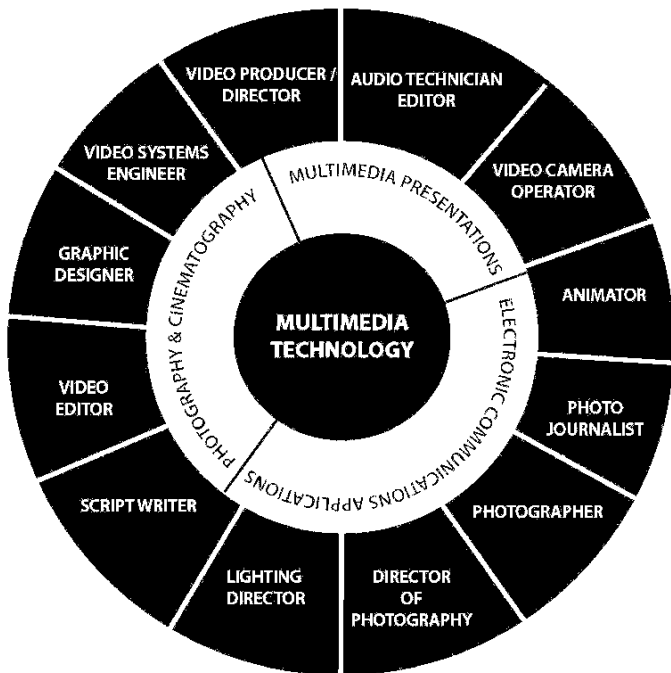
**PROGRAM REQUIREMENTS/ESTIMATED COSTS**

Art supply kit (approximately \$20)  
 Portfolio (approximately \$40)  
 Textbook at each grade level (approximately \$30)

Arts, A/V Technology & Communications Career Cluster  
**MULTIMEDIA TECHNOLOGY**

Instructor: Christopher Tully  
 CIP Code: 10.9999

This program introduces students to the art and science of multimedia technology. Students learn several types of media productions while developing a full understanding of the hardware, software, and equipment necessary for delivering effective presentations for business, education, and entertainment. Instruction includes: training in concept design, graphic design, photography, web design, video production, television production, audio production, electronic computer imaging, motion graphics, animation, and presentation technology using Apple computers. In addition, curriculum is implemented using iOS devices such as the iPad, iPhone, and iPod touch. A variety of software applications are taught including: Final Cut Pro, Soundtrack Pro, Motion, Color, DVD Studio Pro, iTunes, iBooks Author, GarageBand, iPhoto, Pages, Numbers, Keynote, iCal, Final Draft, Photoshop, Illustrator, Fireworks, Dreamweaver, After Effects, and Pro Tools. Using state-of-the-art digital technology, students apply their knowledge and skills to create quality media productions for broadcast, DVD, web, corporate video-based communications, and computer-based presentation technology. Students will also receive instruction in internet technology, social media and the development of multi-touch textbooks. This course provides comprehensive hands-on experience with the internet through instruction in website development, project management, budgeting, and social networking, including: Facebook, Ning, LinkedIn, and YouTube. This program will enhance students' computer literacy and increase their communication, artistic, and presentation skills in preparation for college and employment.



**AVAILABLE INDUSTRY CERTIFICATIONS**

Adobe Certified Associate – Visual Communication  
 Apple Certified Pro – Final Cut Pro

**COLLEGE ADVANCED CREDITS**

Art Institute of Pittsburgh  
 Bucks County Community College  
 Pennsylvania College of Technology

**PROGRAM RECOMMENDATIONS**

- Ability to work independently, as well as a member of a group
- Basic computer skills
- Creative/artistic ability
- Effective written and oral communication skills
- Manual dexterity
- Mathematics fundamentals
- Physical stamina
- Read and interpret technical material at grade level
- Strong depth and color perception

**PROGRAM REQUIREMENTS/ESTIMATED COSTS**

Appropriate uniform attire (approximately \$30)  
 Kit of selected computer supplies and educational materials (approximately \$150)

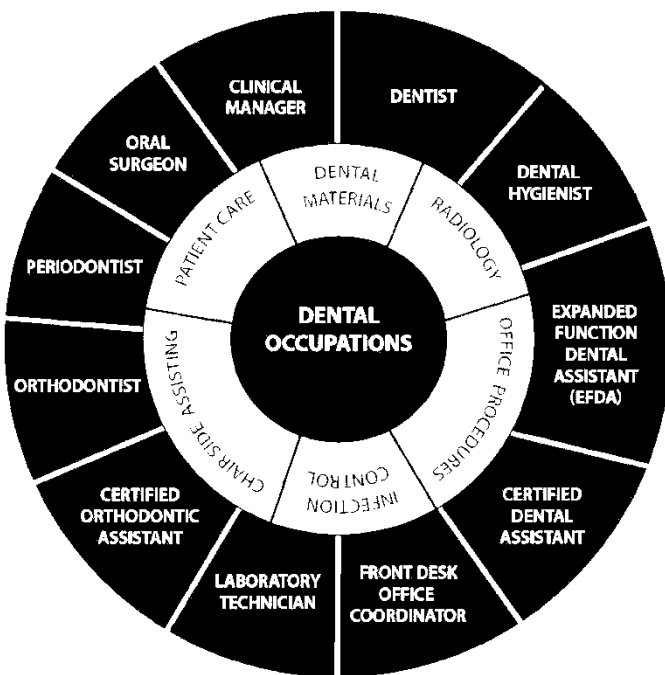


# DENTAL OCCUPATIONS

Instructor: Lisa Cuffari

CIP Code: 51.0601

This program will prepare students to function as an integral member of a dental health team by developing the skills necessary for an entry-level position as a Dental Assistant, Orthodontic Assistant, Clinical Assistant, Dental Laboratory Technician, or Dental Receptionist. The core curriculum will include instruction in dental terminology, dental radiology, infection control, oral pathology, chairside dental assisting, anatomy and physiology, nutrition, and OSHA regulations. Dental Science instruction will include content in dental materials, dental radiology, oral anatomy and pathology, and therapeutics. Clinical Science instruction will emphasize principles of office management, chairside assisting, sterilization procedures, dental emergencies, and legal and ethical aspects of dental practice. Clinical education is also an integral part of the program, designed to perfect students' competence in performing dental assisting functions. Proficiency in job-related skills is obtained through lecture and hands-on experience in the lab or clinical setting. This program provides an excellent foundation of technical knowledge for college and/or direct employment.



## AVAILABLE INDUSTRY CERTIFICATIONS

American Heart Association BLS Healthcare

Provider

Dental Assisting National Board, Inc. (DANB)

Infection Control (ICE)

Dental Assisting National Board, Inc. (DANB)

Radiation Health and Safety (RHS)

## COLLEGE ADVANCED CREDITS

Bucks County Community College

Harcum College

Manor College

Pennsylvania College of Technology

## PROGRAM RECOMMENDATIONS

Effective written and oral communication skills

Finger dexterity

Hand-eye coordination

Mathematics fundamentals

Near vision

Read and interpret technical material at grade level

## PROGRAM REQUIREMENTS/ESTIMATED

### COSTS

Activity fees (approximately \$65)

Appropriate uniform attire (approximately \$75)

DANB RHS Exam Fees (approximately \$225)

Physical examination, including Hepatitis B and

Tuberculin Skin Test (at student's expense)

Workbooks (approximately \$75)

Health Science Career Cluster  
**HEALTH OCCUPATIONS**

Instructor: Gina Boccella

CIP Code: 51.0899

This program is designed to prepare students for entry-level careers in the health field. Students are provided with both clinical and shadowing experience in long-term care facilities in the area, including Neshaminy Manor Long-Term Care Facility. These opportunities further enhance the students' learning experience and assists in their transition to employment. The core curriculum includes: Nurse Aide and Medical Assisting components with an overview of health careers, basic anatomy and physiology, medical terminology, clinical laboratory procedures, standard precautions, legal and ethical aspects of health care, and communication skills. Leadership skills and opportunities are encouraged through active involvement in Future Health Professionals (HOSA), our state and nationally recognized student organization. This program provides an excellent foundation of technical knowledge for college and/or direct employment.



**AVAILABLE INDUSTRY CERTIFICATIONS**

- American Heart Association Heartsaver CPR and AED
- American Red Cross First Aid
- Fire Safety
- Medical Administrative Assistant with Billing and Coding and Electronic Health Record
- Pennsylvania Department of Health Nurse Aide Registry

**COLLEGE ADVANCED CREDITS**

- Bucks County Community College
- Harcum College
- Pennsylvania College of Technology

**PROGRAM RECOMMENDATIONS**

- Effective oral expression and comprehension
- Effective written expression
- Hand-eye coordination
- Finger dexterity
- Laboratory science
- Mathematics fundamentals
- Near vision
- Read and interpret technical material at grade level

**PROGRAM REQUIREMENTS/ESTIMATED COSTS**

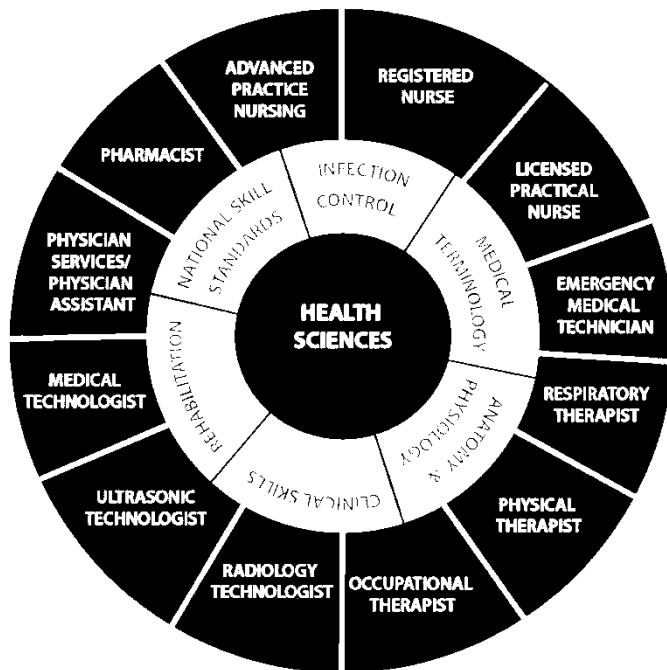
- Activity fees (approximately \$60)
- Appropriate uniform attire (approximately \$80)
- Annual clearances, including PA Criminal Record Check and FBI Criminal Background Check (approximately \$30)
- Physical examination, including Hepatitis B and Tuberculin Skin Test (at student's expense)
- Workbooks (approximately \$120)

Health Science Career Cluster  
**HEALTH SCIENCES**

Instructor: Marsha Moyer

CIP Code: 51.9999

This program is designed for the college-bound student whose career plans involve the medical and allied health field. This program provides core instruction in the health care field including: medical terminology and abbreviations, anatomy and physiology in health and disease, medical ethics and legalities, clinical laboratory procedures, cultural awareness, nutrition, growth and development across the life span, dimensional analysis, and current issues in health care. Additional instruction in clinical skills includes: vital signs, standard precautions, and personal and environmental safety. The Health Sciences program participates in shadowing experiences at area hospitals and health care facilities, including Abington Memorial Hospital, which afford students the opportunity to observe procedures, meet patients, and learn about technology and the educational credentials required for entry into various fields. Leadership skills and opportunities are encouraged through active involvement in Future Health Professionals (HOSA), our state and nationally recognized student organization.



**AVAILABLE INDUSTRY CERTIFICATIONS**

American Heart Association Heartsaver CPR and AED

American Red Cross First Aid

EKG Technician

Fire Safety

Oxygen Administration

Patient Care Technician

**COLLEGE ADVANCED CREDITS**

Bucks County Community College

Gwynedd Mercy University

Harcum College

Pennsylvania College of Technology

**PROGRAM RECOMMENDATIONS**

Advanced mathematics

Laboratory science

Read and interpret technical material at grade level

**PROGRAM REQUIREMENTS/ESTIMATED**

**COSTS**

Activity fees (approximately \$60)

Annual clearances, including PA Child Abuse

History Clearance, PA Criminal Record Check, and FBI Criminal Background Check

(approximately \$50)

Appropriate uniform attire (approximately \$80)

Physical examination, including Hepatitis B,

Tuberculin Skin Test, and Flu vaccine

(at student's expense)

Workbooks (approximately \$120)

# SPORTS THERAPY & EXERCISE MANAGEMENT

Instructor: T.B.D.

CIP Code: 51.9999

The Sports Therapy & Exercise Management program is designed to prepare students for a number of 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, anatomy and physiology, pathophysiology, athletic training, injury recognition and management, rehabilitation and restorative care, and medical terminology. Students will learn to design safe and effective exercise prescriptions, conduct individual exercise programs, and fitness testing. Students will be prepared for employment in a wide variety of settings that include 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.



## AVAILABLE INDUSTRY CERTIFICATIONS

American Heart Association Heartsaver CPR and AED

American Red Cross First Aid

Personal Fitness Trainer

## COLLEGE ADVANCED CREDITS

Harcum College

Johnson College

Mount Aloysius College

## PROGRAM RECOMMENDATIONS

Advanced mathematics

Laboratory science

Read and interpret technical material at grade level

## PROGRAM REQUIREMENTS/ESTIMATED COSTS

Activity fees (approximately \$25)

Annual clearances, including PA Child Abuse

History Clearance, PA Criminal Record Check, and FBI Criminal Background Check (approximately \$50)

Appropriate uniform attire (approximately \$50)

Physical examination, including Hepatitis B and Tuberculin Skin Test (at student's expense)

Workbooks (approximately \$30)

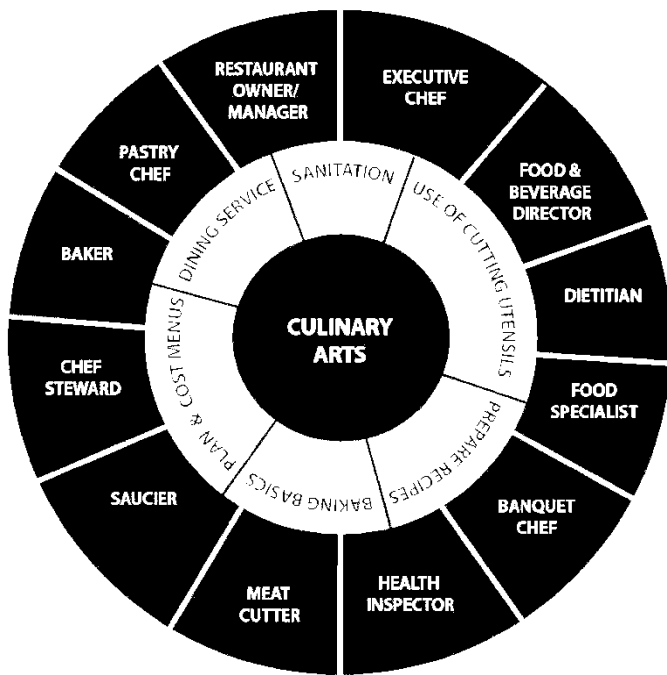
Hospitality & Tourism Career Cluster

# CULINARY ARTS

Instructors: Mark Gage and Michael McCombe

CIP Code: 12.0508

This American Culinary Federation (ACF) accredited secondary education program prepares students for employment in the hospitality industry, the largest industry in America today. Instruction includes theory and applications related to: food preparation, food management, menu and banquet planning, food and beverage purchasing, quality control, cost analysis, commercial baking and pastry, catering, chef preparation, institutional foods, meat cutting, cooking methods, nutrition, safety, and sanitation. Students learn the safe and proper use of hand and power tools related to the industry. Practical experience is a major part of the course through the operation and management of a complete restaurant and catered banquet affairs. Hands-on instruction includes food preparation techniques required in a variety of food service establishments. Upon completion of the program, students will be prepared for entry-level positions in the food service industry or advanced study at a culinary institute or college.



### AVAILABLE INDUSTRY CERTIFICATIONS

ACF Certified Junior Culinarian  
ACF Secondary Culinary Graduate  
ServSafe/Manager Food Safety

### COLLEGE ADVANCED CREDITS

Bucks County Community College  
Culinary Institute of America  
Delaware Valley College  
Johnson and Wales University  
Pennsylvania College of Technology  
The Restaurant School at Walnut Hill College

### PROGRAM RECOMMENDATIONS

Basic computer skills  
Effective written and oral communication skills  
Good interpersonal skills  
Mathematics fundamentals  
Read and interpret technical material at grade level

### PROGRAM REQUIREMENTS/ESTIMATED COSTS

Appropriate uniform attire (approximately \$200)  
Industry certification testing fees  
(approximately \$60 per test)  
Workbook (approximately \$20)

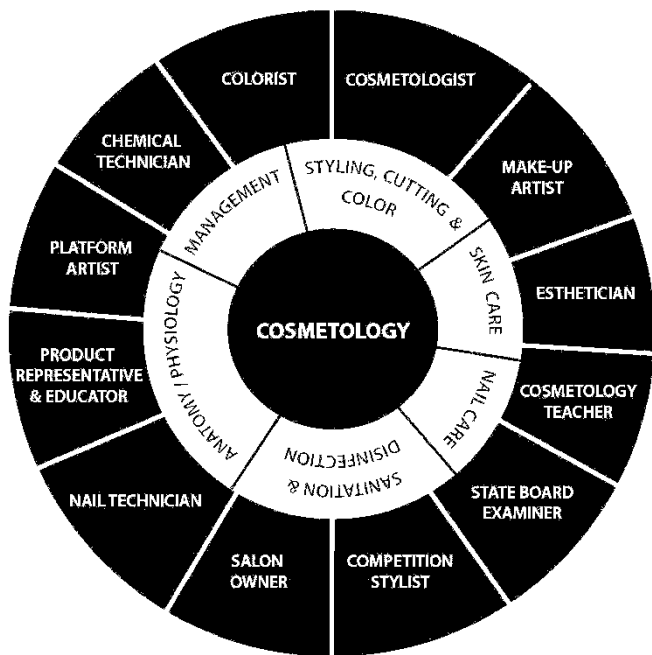
Human Services Career Cluster

# COSMETOLOGY

Instructors: Jo Ann McLaughlin and Maura Duncan

CIP Code: 12.0401

This program is designed to be in compliance with the rules, regulations and state-mandated curriculum of the Pennsylvania State Board of Cosmetology. Instruction is provided in a variety of beauty treatments including, the care and beautification of the hair, skin, and nails. Included in this curriculum is: training in shampooing, hair styling, haircutting, hair coloring and bleaching, chemical texturizing, facials, manicures and pedicures, nail technology, bacteriology, chemistry, electricity, anatomy and physiology, hygiene, sanitation, salon management, and communication skills. Students completing all of the requirements, including the 1,250 hours of instruction, are eligible to receive selected PA State Board of Cosmetology Licenses upon successful examination. Upon issuance of a professional license by the PA State Board of Cosmetology, students are qualified for employment in a full service salon or advanced licensing and teaching. Other options include collegiate study in business or marketing, providing employment opportunities as manufacturers' representatives and/or small business owners.



### AVAILABLE INDUSTRY CERTIFICATIONS

PA State Board of Cosmetology Licenses

### COLLEGE ADVANCED CREDITS

Bucks County Community College  
Pennsylvania College of Technology

### PROGRAM RECOMMENDATIONS

Ability to adhere to strict safety regulations  
Color perception and accurate vision  
Effective communication skills  
Fine motor skills  
Good interpersonal skills  
Good organizational skills  
Mathematics fundamentals, including liquid measurements  
Read and interpret technical material at grade level

### PROGRAM REQUIREMENTS/ESTIMATED

#### COSTS

Cosmetology kits (approximately \$630)  
Industry certification testing fees (approximately \$149)  
Must serve as both an operator and a peer model for all reversible services  
Social Security # or Federal # (required to record hours)

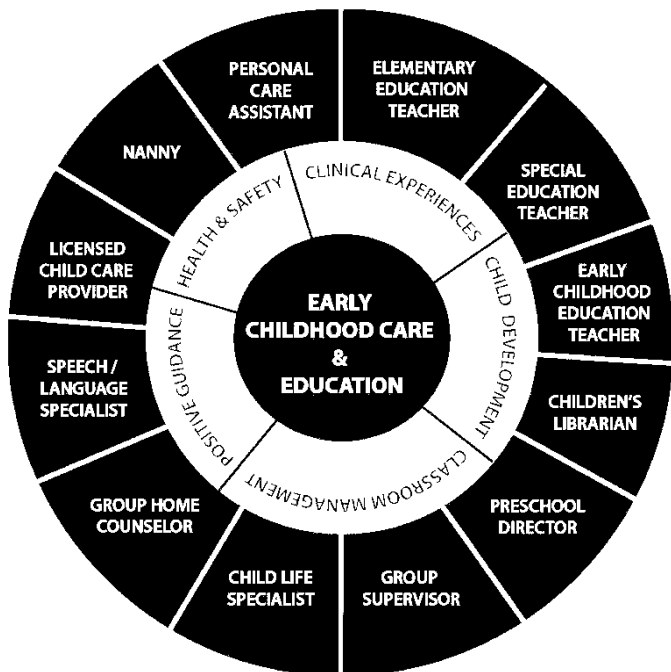
Human Services Career Cluster

# EARLY CHILDHOOD CARE & EDUCATION

Instructor: Lise Rich

CIP Code: 19.0708

This program prepares students for a variety of careers working with children, and provides both theory and practical experiences. Students assist in the operation of a laboratory childcare center at Middle Bucks Institute of Technology, Li'l Bucks Partners in Learning, which is licensed as a Pennsylvania-approved childcare center and a Keystone Star 3 center. Students age 16 or older are involved in supervising play, learning skills in behavior management, maintaining a safe and healthy environment, developing an understanding of policies and procedures regarding child care services, and developing lesson plans, observation skills, and professional skills. The program is aligned to the Child Development Associate (CDA) requirements as well as Pennsylvania's Program of Studies for Child Care. In the third year of the program, students complete clinical experiences working with infants, toddlers, preschoolers, school-aged children, or special needs children. This program provides an excellent foundation of technical knowledge for college and/or direct employment.



### AVAILABLE INDUSTRY CERTIFICATIONS

- Assistant Group Supervisor
- Child Development Associate (CDA)
- Penn State Extension Better Kid Care New Staff 15 Hour Orientation
- PA Keys CPR Training
- PA Keys Fire Safety Training
- PA Keys Pediatric First Aid Training

### COLLEGE ADVANCED CREDITS

- Bucks County Community College
- Manor College
- Harcum College
- Pennsylvania College of Technology

### PROGRAM RECOMMENDATIONS

- Effective communication skills
- Emotional stability
- Mathematics fundamentals
- Physical stamina
- Read and interpret educational material at grade level

### PROGRAM REQUIREMENTS/ESTIMATED COSTS

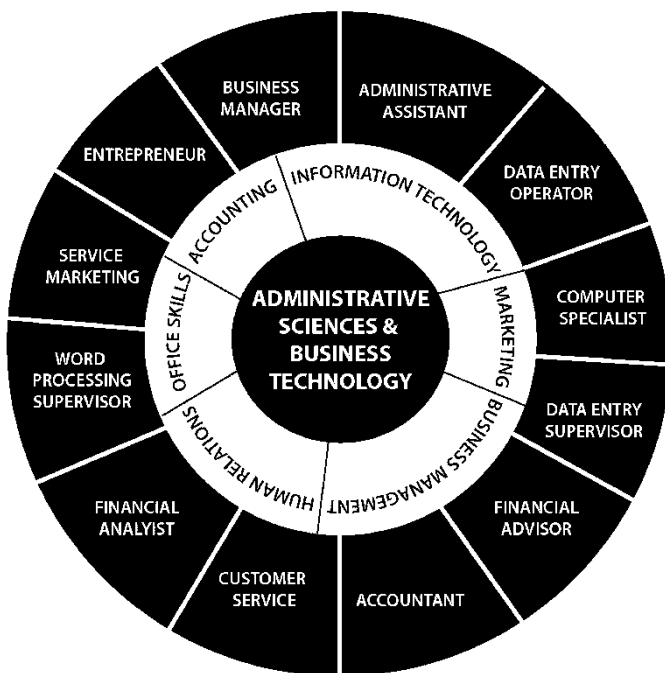
- Age verification
- Annual clearances, including PA Child Abuse History Clearance and PA Criminal Record Check (approximately \$20)
- Physical examination, including Tuberculin Skin Test (at student's expense)
- Two written references

Information Technology Career Cluster

# ADMINISTRATIVE SCIENCES & BUSINESS TECHNOLOGY

Instructor: Steven Guinan  
CIP Code: 52.0401

The Administrative Sciences & Business Technology program is designed to prepare students to support the functions of daily business activities. Students will learn procedures and technology related to business management, entrepreneurship, marketing, and finance. By providing high-level administrative support in conducting research, preparing statistical reports, handling information requests, and performing clerical function such as preparing correspondence, receiving visitors, arranging conference calls, and scheduling meetings, students will acquire skills necessary in any business or office environment. Students will learn to operate a variety of office equipment, such as fax machines, photocopiers, scanners, videoconferencing and telephone systems. Software programs taught include Microsoft Word, Excel, PowerPoint, Access, and Publisher. In addition, students will learn the significant lessons and business functions involved in running a successful school-based enterprise, as well as the interpersonal skills required in any administrative position. Students will study accounting, research, promotion, managing, and selling. They will then learn to translate that knowledge into success in their own school store. Students will also learn basic accounting, including recording transactions in a general ledger, financial statements, adjusting and closing entries, and preparing payroll records. Computerized accounting is introduced using QuickBooks Pro. An opportunity to develop a business plan and market a business is included. This program provides an excellent foundation of technical knowledge for college and/or direct employment.



**AVAILABLE INDUSTRY CERTIFICATIONS**

Microsoft Office Specialist (MOS) in Word, Excel, Access, PowerPoint, and Outlook

**COLLEGE ADVANCED CREDITS**

Bucks County Community College  
Clarion University of Pennsylvania  
Pennsylvania College of Technology

**PROGRAM RECOMMENDATIONS**

Basic computer skills  
Effective written and oral communication skills  
Good interpersonal skills  
Mathematics fundamentals  
Read and interpret technical material at grade level

**PROGRAM REQUIREMENTS/ESTIMATED COSTS**

Appropriate uniform attire (approximately \$20)  
Industry certification testing fees (approximately \$60 per test)  
Textbooks (approximately \$150 to begin student's professional library)

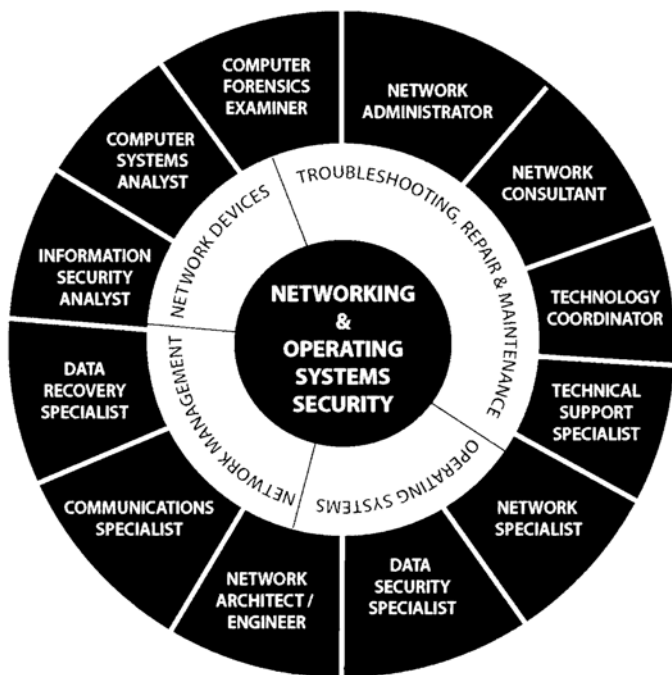


# NETWORKING & OPERATING SYSTEMS SECURITY

Instructor: Thomas Omerza

CIP Code: 11.0901

This authorized Microsoft IT Academy offers students the opportunity to study a variety of topics, including Microsoft Windows Operating Systems, in which students will obtain the knowledge and skills necessary to install, configure, administer, and support the primary services of Microsoft Windows Server operating systems; CompTIA A+ certification, an international, vendor-neutral certification which validates the latest skills needed by today's computer support professionals; CompTIA Network+ certification, which allows students to learn the technology and theory behind local area network (LAN) through design and implementation; CompTIA Linux+, which instructs students in the fundamentals of an open source code operating system and how to incorporate those in a heterogeneous network; and CompTIA Security+ certification, which introduces students to industry-wide topics including communication security, infrastructure security, cryptography, access control, authentication, external attacks, and operations and organizational security. Students will further be introduced to virtual computing and its uses throughout the computer industry, as well as computer forensics, a branch of forensic science pertaining to legal evidence found in computers and digital media storage. In addition, students will learn about network cabling technology, including: copper cabling systems, connectors, grounding, bonding, electrical protection, termination functions, and safety. This program provides an excellent foundation of technical knowledge for college and/or direct employment.



## AVAILABLE INDUSTRY CERTIFICATIONS

Certified Data Recovery Professional (CDRP)  
CompTIA A+, Network+, Linux+, and Security+  
Microsoft Certified Professional (MCP) for Windows  
7 and Windows 2012 Server or Windows 2008  
Server

## COLLEGE ADVANCED CREDITS

Bucks County Community College  
Pennsylvania College of Technology  
Thaddeus Stevens College of Technology

## PROGRAM RECOMMENDATIONS

Algebra 1  
Basic computer skills  
Read and interpret technical material at grade level

## PROGRAM REQUIREMENTS/ESTIMATED COSTS

Appropriate uniform attire (approximately \$25)  
Industry certification testing fees (approximately  
\$130 per test)  
Textbooks (approximately \$195 to begin student's  
professional library)

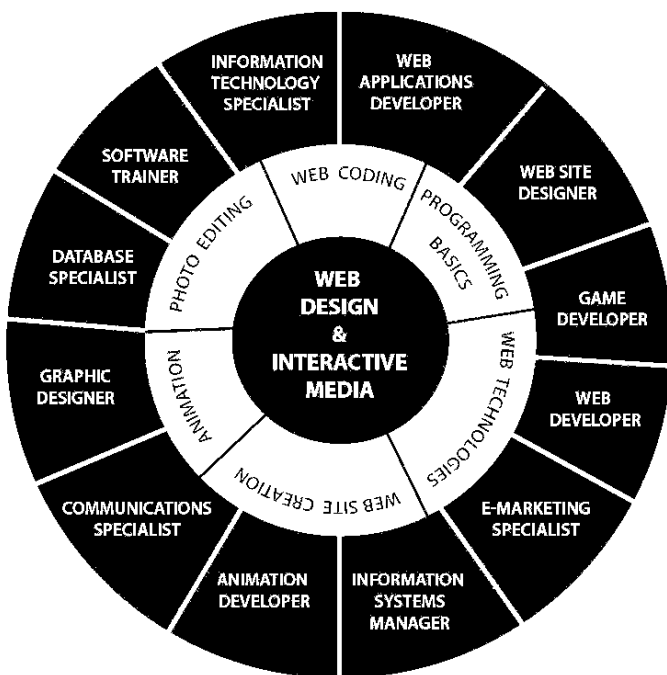
Information Technology Career Cluster

# WEB DESIGN & INTERACTIVE MEDIA

Instructor: Steven Guinan

CIP Code: 11.0801

Students enrolled in this program will participate in an exciting program of study exploring computers in Internet-based technologies. This class is for students who want to learn about the current technology in web applications. Students will learn advanced skills in photo editing using Adobe Photoshop, animation using Adobe Flash, multimedia using Adobe Premier, and web design editing using Adobe Dreamweaver. Adobe is the leading provider of state-of-the-art industry standard software. Students walk away from this class with an extensive portfolio of digital imagery, web imagery, and multimedia animations. In addition, students will have the opportunity to learn coding techniques and development with HTML, the language of the web and the foundation for building website. Students also study programming languages and XHTML to create dynamic web pages. Throughout the course, students create and design websites for a variety of clients in the community. This program includes instruction in: internet theory, web page standards and policies, elements of web page design, user interfaces, vector tools, special effects, interactive and multimedia components, search engines, navigation, morphing, gaming, e-commerce tools, and emerging web technology. This program provides an excellent foundation of technical knowledge for college and/or direct employment.



## AVAILABLE INDUSTRY CERTIFICATIONS

Adobe Certified Associate (ACA) in Dreamweaver, Photoshop, and Flash

Microsoft Office Specialist (MOS) in Access and Excel

World Organization of Webmasters (WOW)

## COLLEGE ADVANCED CREDITS

Art Institute of Pittsburgh

Bucks County Community College

Pennsylvania College of Technology

## PROGRAM RECOMMENDATIONS

Algebra 1

Basic computer skills

Read and interpret technical material at grade level

## PROGRAM REQUIREMENTS/ESTIMATED COSTS

Industry certification testing fees (approximately \$60 per test)

Textbooks (approximately \$150 to begin student's professional library)

Law, Public Safety & Security Career Cluster

# PUBLIC SAFETY

Instructor: John Fala

CIP Code: 43.9999

The Public Safety program is designed to prepare students for careers in four broad public safety areas: law enforcement, fire protection, emergency health services, and security and loss prevention. Students will study the following topics: criminal justice system including: juvenile justice and delinquency, corrections, and judiciary; police science including: investigative, patrol, traffic and crowd control procedures and forensics; physical and mental fitness including: self-discipline, defensive tactics, and arrest techniques; fire science including: prevention, firefighting, and rescue techniques; security and loss prevention as it applies to commercial, industrial and other corporate settings; vehicle and equipment use, maintenance, and safety. Through report writing and information retrieval, students will apply and refine their communication and computer skills. The curriculum will include discussion and case studies on professionalism, ethics, cultural diversity, and conflict resolution. Classroom and laboratory experiences will be held at both MBIT and the Bucks County Public Safety Training Center. This program provides an excellent foundation from which to pursue a two or four year college degree and ultimately a career in public safety.



### AVAILABLE INDUSTRY CERTIFICATIONS

American Heart Association Heartsaver CPR, AED and First Aid  
Firefighter I and Emergency Medical Technician  
Monadnock Expandable Baton (MEB)  
Oleoresin Capsicum Aerosol Training (OCAT – Pepper Spray)  
Practical and Tactical Handcuffing (PATH)

### COLLEGE ADVANCED CREDITS

Bucks County Community College  
CHI Institute  
Pennsylvania College of Technology

### PROGRAM RECOMMENDATIONS

Algebra I  
Basic computer skills  
Effective written and oral communication skills  
Emotional stability  
Physical and mental fitness  
Read and interpret technical material at grade level

### PROGRAM REQUIREMENTS/ESTIMATED COSTS

Appropriate uniform attire (approximately \$170)  
PA Criminal Record Check (approximately \$10)  
Physical exam (at student's expense)

Manufacturing Career Cluster  
**WELDING TECHNOLOGY**

Instructor: Paul Carney

CIP Code: 48.0508

This instructional program prepares students in oxy/fuel welding, cutting, and brazing, shielded metal arc, gas metal arc, gas tungsten arc, flux core, carbon arc, plasma cutting using manual and Computerized Numerical Control (CNC) programming welding processes. Students are trained in the types, sizes and uses of electrode and welding rods, welding symbols, and the use of measuring instruments, hand tools, and portable grinders. Theory in metallurgy, electrical principles, blueprint reading, layout and design, and CNC programming on fabrication equipment is provided. Practical problems in math, preparation of material lists, cost estimating and methods of quality assurance are also covered. Quality control inspections include the use of destructive and non-destructive testing equipment. The welding standards and procedures established by the American Welding Society (AWS), American Society of Mechanical Engineers (ASME), the American Bureau of Ships (ABS), the American Petroleum Institute (API), and safety practices outlined in the American National Standards Institute (ANSI Z49.1) code books will be practiced. Students may pursue advanced studies at the post-secondary level in fields including: welding engineering, metallurgy, structural design, energy technology, underwater welding, quality control and inspection, as well as apprenticeships. This program provides an excellent foundation of technical knowledge for college and/or direct employment.



**AVAILABLE INDUSTRY CERTIFICATIONS**

ASME/AWS Code  
AWS Entry Level Welder  
OSHA 10 Hour Safety

**COLLEGE ADVANCED CREDITS**

Bucks County Community College  
Pennsylvania College of Technology

**PROGRAM RECOMMENDATIONS**

Ability to adhere to strict safety regulations  
Fine motor skills  
Mathematics fundamentals  
Physical stamina  
Read and interpret technical material at grade level

**PROGRAM REQUIREMENTS/ESTIMATED COSTS**

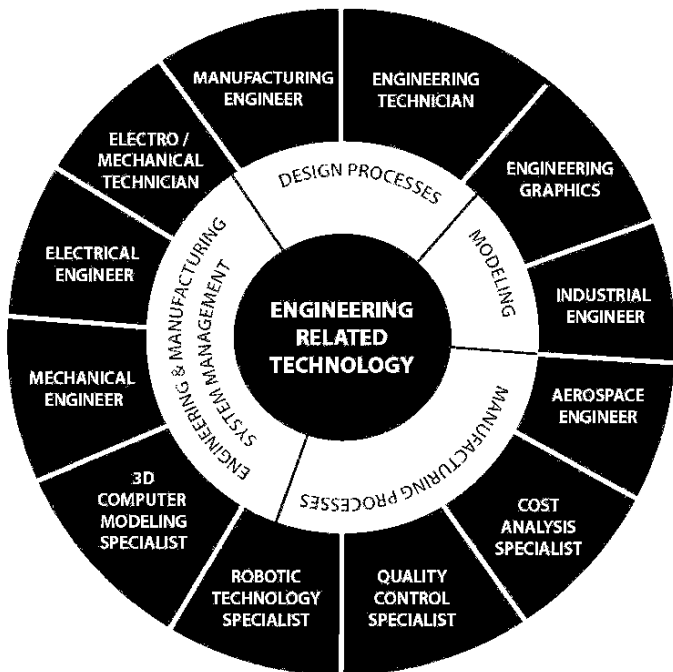
Appropriate uniform attire (approximately \$40-\$70)  
Industry certification testing fees (T.B.D.)  
OSHA 10 Hour Safety (approximately \$18)  
Textbook and lab manual (approximately \$25)

Science, Technology, Engineering & Mathematics Career Cluster  
**ENGINEERING RELATED TECHNOLOGY**

Instructor: Allan Roberts

CIP Code: 15.9999

This program provides the college-bound student with pre-professional experiences in the field of engineering and related technologies. Curriculum is enhanced through the use of state-of-the art technology and Amatrol Hands-On Learning Systems. The Engineering Related Technology program is a rigorous sequence of courses that allows students to develop skills in engineering and engineering technology. Exposure to principles of engineering and introduction to engineering design will help students prepare to enter a two or four-year college or technical school. The Amatrol Systems help the student understand the practical side of engineering related technology by utilizing hands-on skills. This project-based curriculum challenges students to use mathematical, scientific, and technological principles to solve real world problems. The broader Engineering Related Technology program curriculum consists of a series of courses that expose students to the various disciplines of engineering including: civil engineering, electrical and electronic engineering, design engineering, industrial, manufacturing, and mechanical engineering, chemical engineering, aerospace engineering, and computer and network engineering. Students will study electro-mechanical systems, robotics, electrical and electronic theory, thermal heat, and fluid and pneumatic power. They will learn to use a variety of engineering tools including: software applications for design, statistical and data analysis, project management, presentation, and reporting. In addition, students will use laboratory equipment for testing and measurement. Lastly, students will learn the problem-solving process, develop critical thinking skills, and work in teams.



**AVAILABLE INDUSTRY CERTIFICATIONS**

OSHA 10 Hour Safety

SolidWorks

**COLLEGE ADVANCED CREDITS**

Bucks County Community College

Pennsylvania College of Technology

**PROGRAM RECOMMENDATIONS**

Algebra 1

Laboratory science

Read and interpret technical material at grade level

**PROGRAM REQUIREMENTS/ESTIMATED COSTS**

OSHA 10 Hour Safety (approximately \$25)

Lab coat (approximately \$40)

Lab supplies (approximately \$75)

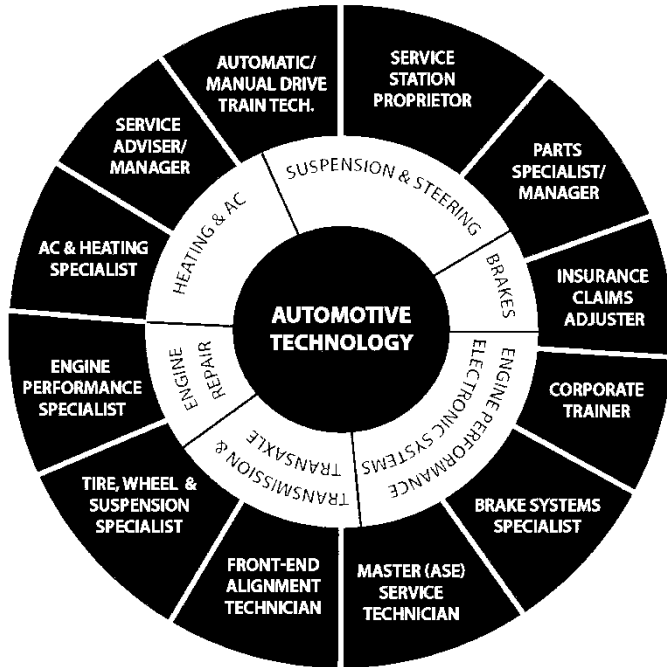
Workbooks (approximately \$125)

Transportation, Distribution & Logistics Career Cluster  
**AUTOMOTIVE TECHNOLOGY**

Instructors: Paul Ciarlone and Robert Schwarz

CIP Code: 47.0604

The Automotive Technology program has been recognized by the Motor Vehicle Manufacturers Association (MVMA) Advisory Council and the Association for Career and Technical Education (ACTE). This nationally recognized Automotive Service Excellence/National Automotive Training Education Foundation (ASE/NATEF) accredited instructional program prepares students to engage in the diagnosis, servicing, and maintenance of all types of automobiles. Instruction is provided in the diagnosis, repair and maintenance of: engines, automatic transmissions/transaxles, manual drive trains and axles, suspension and steering systems, brake systems, electrical systems, heating and air conditioning systems, and engine performance. Graduates of this program will be qualified to enter the automotive field as an entry-level service technician in new car dealerships or related automotive businesses. The Automotive Technology program also provides an excellent foundation from which to pursue a two or four year college degree.



**AVAILABLE INDUSTRY CERTIFICATIONS**

- AC Delco Battery Starting and Changing System
- AC Delco Electrical State 1 & 2
- ASE
- PA Certified Emissions Inspector
- PA Certified Safety Inspector, Cat I
- S/P2 Certificates for Safety and Pollution
- Section 609 Certification for Refrigerant Recycling and Recovery
- Valvoline Motor Oil

**COLLEGE ADVANCED CREDITS**

- Bucks County Community College
- Northampton Community College
- Pennsylvania College of Technology
- Universal Technical Institute

**PROGRAM RECOMMENDATIONS**

- Ability to work in cramped spaces and awkward positions
- Effective analytical and critical thinking skills
- Aptitude for mechanical and scientific theory
- Effective oral comprehension
- Hand-eye coordination
- Mathematics fundamentals including: arithmetic, algebra, and geometry
- Read and interpret technical material at grade level
- Understanding of electronics and computers

**PROGRAM REQUIREMENTS/ESTIMATED COSTS**

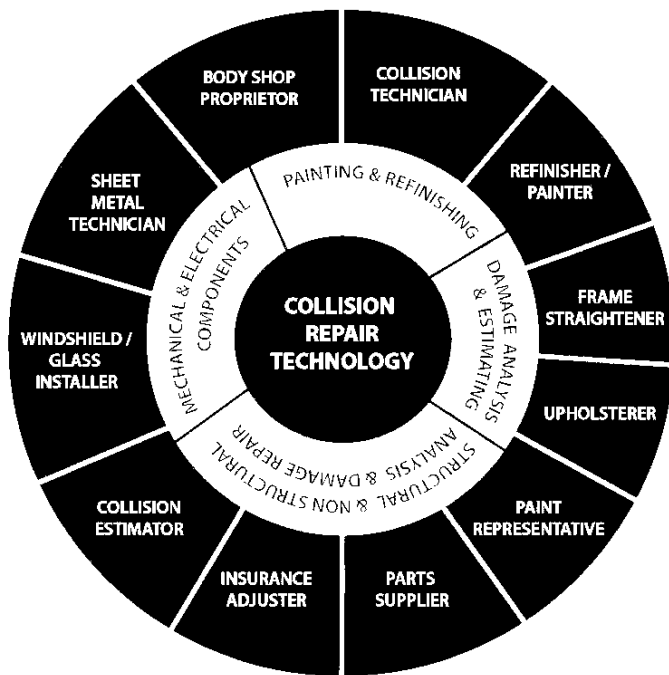
- Appropriate uniform attire (approximately \$100)
- Textbooks and lab manuals (approximately \$25)
- Industry certification testing fees (approximately \$120)

Transportation, Distribution & Logistics Career Cluster  
**COLLISION REPAIR TECHNOLOGY**

Instructor: Arnold Jazlovietcki, Jr.

CIP Code: 47.0603

The Collision Repair Technology program has been recognized by the Motor Vehicle Manufacturers Association (MVMA) Advisory Council and the Association for Career and Technical Education (ACTE). This nationally recognized Automotive Service Excellence/National Automotive Training Education Foundation (ASE/NATEF) accredited instructional program prepares students to perform: structural analysis and damage repair, non-structural analysis and damage repair, mechanical and electrical components, plastics and adhesives, and painting and refinishing. Furthermore, this program utilizes the industry standard I-CAR Live curriculum. The program prepares students to perform various duties from repairing small dents to rebuilding the bodies of wrecked or damaged vehicles. Students learn industry relevant skills including: examining damaged vehicles and estimating costs of repairs, removal, repair, and replacement of body panels, accessories, electrical and hydraulic devices, grills, trim, automotive glass, and unibody straightening. Refinishing processes and spray painting techniques are taught in a controlled-atmosphere downdraft spray booth according to industry standards. Waterborne paint technology is taught as part of the industry's efforts to be more environmentally friendly. Students learn the proper use of power and hand tools, welding processes and techniques, and safety. Students will be prepared to enter the auto body and collision industry as entry-level technicians. Students will also have the technical skills to pursue an associate or baccalaureate degree in collision related fields, including automotive restoration technology.



**AVAILABLE INDUSTRY CERTIFICATIONS**

- AC Delco Battery Starting and Changing System
- AC Delco Electrical State 1 & 2
- ASE
- S/P2 Certificates for Safety and Pollution
- Section 609 Certification for Refrigerant Recycling and Recovery
- Valvoline Motor Oil

**COLLEGE ADVANCED CREDITS**

- Bucks County Community College
- Pennsylvania College of Technology
- Universal Technical Institute

**PROGRAM RECOMMENDATIONS**

- Adhere to strict safety regulations
- Color and size perception
- Effective organizational skills
- Hand-eye coordination
- Mathematics fundamentals, including linear and liquid measurements
- Physical stamina
- Read and interpret technical material at grade level

**PROGRAM REQUIREMENTS/ESTIMATED COSTS**

- Appropriate uniform attire and equipment (approximately \$172)
- Industry certification testing fees (approximately \$36 per test)

## **RELATED PROGRAMS AND SERVICES**

### **STUDENT SUPPORT SERVICES**

The following additional services are available to students and/or prospective students:

- Academic remediation
- Career guidance and counseling
- Career assessment and development
- Equity services for non-traditional students
- Student assessment/aptitude testing
- Special support and placement
- Health services

Instructional support services are provided based on each student's individual needs to ensure their success. These services include remedial assistance in math, reading, writing, technical skills, job seeking and retention skills, communications and interpersonal skills, and testing.

### **WORK-BASED EDUCATION**

As part of their chosen educational program, students may extend their educational training to an actual work site. In cooperation with local business and industry, students may participate in apprenticeship, co-op, internship, externship, clinical and/or shadowing experiences. All company sites selected for work-based training are evaluated on their ability to offer a relevant, safe, and supervised experience. Formal training agreements and plans are required of each work site to create the structure necessary for a successful experience. Work-based education reinforces and supplements the technical education received at Middle Bucks Institute of Technology and is scheduled based on student need and readiness.

Occasionally, an opportunity may arise for registered student apprenticeships through the Federal Bureau of Apprenticeship and Training, and the Pennsylvania Apprenticeship and Training Council in several of our trade areas. These registered programs are sponsored jointly by employers and labor organizations. Middle Bucks Institute of Technology, through our cooperative education department, is helping to establish registered apprenticeships and provide these sponsors with qualified students. These apprenticeship experiences provide our students with a head start toward their journeyman certification.

### **CAREER AND TECHNICAL STUDENT ORGANIZATIONS**

Career and Technical Student Organizations (CTSOs) are an integral part of the educational program at Middle Bucks Institute of Technology. These co-curricular experiences provide students with opportunities to develop leadership skills and to participate in community service activities. Students are also able to compete locally, regionally, statewide, and nationally in skill and leadership competitions in their career specialty. All students are expected to participate in SkillsUSA and one of the following organizations relevant to their program of study, Future Health Professionals (HOSA), Future Farmers of America (FFA), or the Pennsylvania Builders Association (PBA). There is a \$25 activity fee assessed to all students attending MBIT, which is applied to their state and national dues.



## **PORTFOLIOS**

Portfolio development is an instructional strategy used to showcase students' work in all of the career and technical programs at MBIT. All students will develop a portfolio which represents a collection of work that can be presented to a prospective employer or college/university representative.

## **INDUSTRY CERTIFICATIONS**

The high performance workplace demands a skilled, competent workforce. In order to provide a standard of performance, many industries have developed and offer examinations or certification programs leading to a nationally recognized credential. At MBIT, opportunities are available for students to complete recognized industry credential or certification programs. All twenty-three career pathways lead to the earning of at least one industry credential. The Microsoft Office Specialist (MOS), Automotive Service Excellence (ASE), Emergency Medical Technician (EMT), and the Pennsylvania Department of Health Nurse Aide (NA) certifications are just some of the credentials and certifications that students can achieve while enrolled at MBIT. Please refer to the "certifications" section under each career pathway for a complete listing. Many of these certifications offer the student an advanced position in a variety of higher paying jobs in our community.

## **JOB COUNSELING SERVICES**

Based on the student's career goal, Middle Bucks Institute of Technology provides job counseling services to meet individual needs and interests. Placement rates for MBIT graduates have been excellent and have historically exceeded 100% for those students who desire and actively pursue job or college placement. Middle Bucks Institute of Technology is committed to the placement of all successful students. In addition, placement services are available to all MBIT alumni.

## **ADULT AND INDUSTRY EDUCATION**

Adult day programs are offered to adults interested in studying for a new career. Adult students are accepted into all daytime programs as space permits. Adult evening classes are offered in the fall and spring semester, allowing adult students to learn new skills or upgrade current skills for employment. Online courses are available to adult students through our web-based partner ED2GO accessible from our school website. Finally, custom industry training courses for employees within the community can be designed to meet specific training needs and can be delivered at a company site or at MBIT.

## FACULTY AND STAFF PROFILES

### GINA BOCCELLA

#### **Teaching Assignment: Health Occupations**

B.S. in Nursing, Temple University; currently employed as a nurse at Abington Memorial Hospital since 2008; certified Med/Surg Nurse; certified Reiki practitioner; graduate of Middle Bucks Institute of Technology; possesses Pennsylvania teaching certificate.

### PAUL CARNEY

#### **Teaching Assignment: Welding Technology**

B.S. in Education, Temple University; over 40 years of occupational experience; President, Pennsylvania Association of Welding Educators (PAWE); American Welding Society (AWS) Silver Member; certified Welding Educator (CWE); certified Welding Inspector (CWI/AWS/API); American Petroleum Institute API 1104 AWS Certified D1.1 structural and ASME IX code welder, holds U.S. Defense Nuclear Certification for pipe and structural welding; Power Generation Service Technician on nuclear and fossil steam turbines; certified as a quality circle leader and laser technician by General Electric Aerospace Division; President of Carnac Industrial Training and Consulting; past member of International Society of Welding Educators (ISWE) and member since 1980 of the American Welding Society, Lehigh and Philadelphia Chapters; serves as a Mentor Teacher; possesses Pennsylvania certificates in teaching and cooperative education.

### PAUL CIARLONE

#### **Teaching Assignment: Automotive Technology**

Twenty-eight years of occupational experience, including fifteen years as owner/operator of an automotive repair business and seventeen years of experience as an instructor; degree from Automotive Training Center in Specialized Automotive Service Technology with a Machine Shop Major; degree from RETS Electronics in Electronic and Microprocessor Technology; ASE Certified Master Technician; ASE Certified L1 Advanced Engine Performance Specialist; certified Instructor for Pennsylvania Safety Inspection License, Enhanced Emissions Inspector Certification, Fundamental Inspection Repair System Training; certified with Mobile Air Condition Society to perform air conditioning refrigerant recovery; Emission Diagnostician Graduate Education Training Program; Daimler Chrysler factory trained in all skill areas; Ford factory trained in Electrical/Electronic, Multiplexing, Suspension, ABS and Climate Control; National Train the Trainer for OBDII; possesses Pennsylvania teaching certificate.

### LISA CUFFARI

#### **Teaching Assignment: Dental Occupations**

Graduate of Manor College; Licensed Expanded Function Dental Assistant; twenty years dental office experience; seven years teaching experience; member of the American Dental Assistants Association; possesses Pennsylvania teaching certificate.

### DENISE DOHONEY

#### **Assignment: Assistant Administrative Director**

M.Ed. in Education, Temple University; B.S. in Education, Bloomsburg University; Principal's certification, Immaculata University; eleven years educational administration experience; twenty-two years teaching experience; Adjunct Professor, Temple University; member of Pennsylvania Association of Career and Technical Administrators (PACTA), Association of Career and Technical Education (ACTE), and Pennsylvania Association of Elementary and Secondary School Principals (PAESSP); possesses Pennsylvania Elementary and Secondary Principal certification and Director of Career and Technical Education certification.

## FACULTY AND STAFF PROFILES

### MAURA DUNCAN

#### **Teaching Assignment: Cosmetology**

Possesses State Board of Cosmetology Teacher certification; eight years teaching experience and three years as an Instructional Assistant; member of Association of Vocational Teachers Educating in Cosmetology; active licensed stylist; graduate of Middle Bucks Institute of Technology; possesses Pennsylvania teaching certificate.

### ANGELA EGGE

#### **Assignment: Special Needs Coordinator**

M.Ed. in Education, East Stroudsburg University; B.S. in Biology, Old Dominion University; certification in Secondary Education and Special Education; pursuing Special Education Supervisory Certification at East Stroudsburg University; sixteen years teaching experience; three years administrative experience; member of the Bucks County Autism Support Coalition and Council for Exceptional Children; possesses Pennsylvania, Maryland, and Virginia teaching certificates and OSHA 10 Hour Safety certification.

### JOHN FALA

#### **Teaching Assignment: Public Safety**

M.S. in Public Administration, Pennsylvania State University; B.A. (magna cum laude) in Criminal Justice, Temple University; fifteen years of experience in the field of Criminal Justice; adjunct faculty member at Bucks County Community College, 2003 Pennsylvania Career and Technical Education Teacher of the Year; certification as a Senior Instructor-Advanced with Protective Safety Systems; NFPA Fire Fighter, Pennsylvania Department of Health State Certified Emergency Medical Technician Instructor, MOAB (Management of Aggressive Behavior) Instructor; PATH (Practical and Tactical Handcuffing) Instructor; Expandable Baton Instructor; OCAT (Oleoresin Capsicum Aerosol Training) Instructor, developed and conducted safety training for various government/private agencies on the international, state, and local levels; serves as a Mentor Teacher; possesses Pennsylvania teaching certificates in Law Enforcement and Public Safety.

### SANDRA FITZPATRICK

#### **Assignment: Special Needs Coordinator**

M.Ed. (cum laude) in Special Education, Arcadia University; B.A. (summa cum laude) in Psychology, Gwynedd Mercy University; nineteen years of experience in Career and Technical Education; member of Pennsylvania Association of Career and Technical Administrators (PACTA), Council for Exceptional Children, and AutismSpeaks; possesses Pennsylvania K-12 Special Education certificate.

### STACEY FLOOD

#### **Assignment: Special Needs Coordinator**

M.Ed. in Education, LaSalle University; B.S. Psychology, East Stroudsburg University; certification in Special Education K-12; member of Pi Lambda Theta National Honor Society, LaSalle University, ten years experience in Career and Technical Education; possesses Pennsylvania teaching certificate and OSHA 10 Hour Safety certification.

## FACULTY AND STAFF PROFILES

### MARK GAGE

#### **Teaching Assignment: Culinary Arts**

Graduate of the Culinary Institute of America, Hyde Park, New York; over thirty-five years occupational experience in the hospitality, food, and beverage industry, including positions as Executive Chef at country clubs, restaurants, hotels and catering establishments; Director of Food and Beverage for Club Corp of America International, Dallas, Texas; Instructor at Delaware Valley Culinary Institute; member of American Culinary Federation (ACF); ACF Certified Executive Chef (CEC) and Certified Secondary Culinary Educator (CSCE); 2012 Recipient of the Liberty Museum Teacher as Hero Award, member of Delaware Valley Chefs Association and Phi Theta Kappa National Honor Society; Temple University Occupational Assessment Proctor for Baking, Pastry, and Culinary Arts; ACF Culinary Arts Salon winner; state certified food sanitation manager; graduate of Bucks County Technical High School; possess Hospitality, Supervision, and Nutrition certification through the American Culinary Federation and Commercial Baking and Pastry through Temple University; possesses Pennsylvania teaching certificate.

### DR. THOMAS GREGOR

#### **Assignment: Work-Based Education Teacher/Coordinator**

Ph.D., Vocational, Technical and Adult Education, minors in Industrial Management and College Administration, University of Missouri; M.S. in Technical Education and Industrial/Consumer Psychology, Purdue University; B.S. in Education and Engineering, Purdue University, nine years secondary school teaching; two years experience working with the State Department of Education; nine years university teaching experience in engineering and vocational education, five years university administration experience; published numerous articles and textbooks in technical and professional areas; nineteen years business/industry experience in corporate training, employee relations, and organizational development; held numerous leadership positions in educational and business associations; possesses Pennsylvania certificates in teaching, Cooperative Education, and Supervisor and Director of Vocational Education.

### STEPHANIE GREGORY

#### **Assignment: Guidance Counselor**

M.S. in Psychology from St. Joseph's University; B.S. (summa cum laude) in Psychology from St. Joseph's University; eleven years of experience working in Career and Technical Education; member of Psi Chi, The International Honor Society in Psychology, the Pennsylvania School Counselors Association (PSCA), and the American School Counselor Association (ASCA); possesses Pennsylvania Secondary School Counselor certification.

### STEVEN GUINAN

#### **Teaching Assignments: Administrative Sciences & Business Technology; Web Design and Interactive Media**

M.Ed. in Business, Computer, & Technology Education, Temple University; B.S. in Graphic Design Communications, Philadelphia University; five years professional work experience in business management; five years professional work experience as a graphic designer; certified in Microsoft Office and Adobe; member of the National Business Association of Education; possesses Pennsylvania teaching certificate.

## FACULTY AND STAFF PROFILES

### **ARNOLD JAZLOVIETCKI, JR.**

#### **Teaching Assignment: Collision Repair Technology**

B.S. in Education, Temple University; broad range of occupational experience in all aspects of automotive collision repair; ASE certified in the areas of painting and refinishing, structural, and non-structural analysis and damage repair; I-CAR certified in eight areas of auto collision; possesses master level certification as a PPG painter and painter's trainer; Chief Automotive certificate for Full Frame Analysis and Repair Planning, Design Based Repair; Mitchell International certificate in Advanced Computer-Assisted Estimating; member of I-CAR's Collision Repair Instructor Network Association (CRIN); twenty-eight years teaching experience in automotive collision repair; graduate of Middle Bucks Institute of Technology; possesses Pennsylvania certificates in teaching and Cooperative Education.

### **CRAIG MALINOWSKI**

#### **Teaching Assignment: Computerized Drafting & Engineering Graphics**

B.S. in Architecture, Drexel University; A.S. in Architectural Drafting, Bucks County Community College; twenty years occupational experience in architecture and drafting technology; member of the American Design and Drafting Association (ADDA) and National Council of Architectural Registration Boards (NCARB); certified in Green Advantage (Building Green Initiative); graduate of Middle Bucks Institute of Technology; possesses Pennsylvania teaching certificate.

### **MICHAEL McCOMBE**

#### **Teaching Assignment: Culinary Arts**

Graduate of the Culinary Institute of America, Hyde Park, New York; over thirty-four years occupational experience in the hospitality industry working in both management and chef positions at various prestigious resort hotels, restaurants, country clubs, catering establishments, and food service companies; member of the American Culinary Federation (ACF) Philadelphia Chapter; ACF Certified Executive Chef (CEC) and Certified Culinary Educator (CCE); possesses ACF certification in sanitation, supervisory hospitality management, and nutrition; academic mentor for the Culinary Institute of America; member of Delaware Valley Chefs Association; graduate of Middle Bucks Institute of Technology; National Technical Honor Society Advisor; Corps Leader of the Bucks County Summer Youth Program; instructor for the National Restaurant Association; recipient of the Central Bucks Chamber of Commerce Tree of Life Outstanding Educator Award; selected as Pennsylvania's Outstanding New Vocational Teacher by the Pennsylvania Association for Career and Technical Education (PA-ACTE); possesses Pennsylvania teaching certificate.

### **RANDALL McDOWELL**

#### **Teaching Assignment: Electrical & Network Cabling**

Possesses PA Journeyman's certification; twenty-seven years of occupational experience in the field of residential and commercial electricity; certified in C-Tech Copper Based Cabling Systems and C-Tech Fiber Optic Based Systems; Green Advantage Environmental Residential/Commercial certification; National Center for Construction Education and Research (NCCER) Certified Electrical Instructor; possesses OSHA 10 hour Construction Safety certification; nine years teaching experience; member of Electrical Association of Philadelphia; advisor to the student chapter of the National Home Builders Association; possesses Pennsylvania teaching certificate.

## FACULTY AND STAFF PROFILES

### JO ANN MCLAUGHLIN

#### **Teaching Assignment: Cosmetology**

Teaching experience of over twenty-five years in private education; holds a cosmetology teaching license from the State Board of Cosmetology; member Cosmetology Educators of America; salon stylist; Matrix and Goldwell Certified Colorist; Pivot Point Certified; State Board Exam Rater; Paul Mitchell trained; CliC certified; Curriculum Development Manager and Regional Educational Director for private beauty school; member of the Association of Vocational Teachers Educating in Cosmetology; former Teacher of the Year; possesses Pennsylvania teaching certificate.

### MARSHA MOYER

#### **Teaching Assignment: Health Sciences**

M.Ed. in Education, Temple University; B.S. in Nursing, Gwynedd Mercy University; over twenty years of nursing and occupational experience; recognized as an Outstanding Vocational Teacher of the Year by the Pennsylvania College of Technology; recognized as Pennsylvania's Outstanding Vocational Teacher of the Year by the Pennsylvania Association for Career and Technical Education (PA-ACTE); member of Omicron Tau Theta, National Honorary Professional Graduate Society in Career and Technical Education, Temple University, Gamma Chapter; possesses Pennsylvania teaching certificate and Professional Nurses licensure.

### JEFFREY MUSCHLITZ

#### **Teaching Assignment: HVAC/Plumbing Technology**

A.S. in HVAC/Plumbing Technology, Penn College of Technology; five years as Adjunct Professor in HVAC Technology at Northampton Community College; fifteen years as HVAC/R contracting business owner; Pennsylvania Registered Master Plumber; Pennsylvania Licensed Residential Electrician; licensed Universal Refrigerant Technician; Master Oil Burner certification; Copeland Compressor certification; Plumbing Certificate from Penn College of Technology; R-410a certification; Trac and Gas Tite Flex Gas Pipe certification; Carrier Heat Pump certification; Management of Aggressive Behavior (MOAB) certification; OSHA 10 hour Safety certification; NCCER HVAC, Plumbing, and Core Instructor certification; Keystone Technology Integrator; Pneumatic Controls, Chiller and Steam Systems experience; twenty-four years of occupational experience in the HVAC/Plumbing industry; twelve years teaching experience in the HVAC/Plumbing Technology program; possesses Pennsylvania teaching certificate.

### THOMAS OMERZA

#### **Teaching Assignment: Networking & Operating Systems Security**

A.S. in Computer Sciences, Temple University; Microsoft Certified Systems Engineer (MCSE), MCP plus Internet, CompTIA A+ Certified Computer Repair Technician, Certified Computer Forensics Examiner (CCFE); Certified Data Recovery Professional (CDRP); nine years of experience as computer network administrator at George Westinghouse Vocational Technical High School; three years as network product manager for the Chubb Institute, Parsippany, NJ; nineteen years teaching experience in computers and electronics, twenty-three years occupational experience in the computer industry; president and owner of Moonlight Computer Consulting; holds F.C.C. radio license; served in the U.S. Navy; possesses Pennsylvania teaching certificate.

## FACULTY AND STAFF PROFILES

### STACY PAKULA

#### **Assignment: Career and Technical Education Supervisor**

M.A. in Psychology, LaSalle University; B.S. in Psychology, James Madison University; twelve years as certified test supervisor through ACT; certified Student Assistance Program (SAP) facilitator; member of Psi Chi, The International Honor Society in Psychology, the Pennsylvania Association of Career and Technical Administrators (PACTA), and the Pennsylvania School Public Relations Association (PennSPRA); graduate of the Central Bucks Chamber of Commerce Leadership Advancement Program; currently enrolled at Temple University; possesses Pennsylvania Supervisor of Career and Technical Education certification.

### LISE RICH

#### **Teaching Assignment: Early Childhood Care & Education**

M.Ed. in Special Education, Arcadia University; B.S. (cum laude) in Early Childhood Care and Elementary Education, Temple University; Director of Li'l Bucks Partners in Learning Child Care Center; member of National Association for the Education of Young Children (NAEYC) and Pennsylvania Child Care Association (PACCA); twenty-one years teaching experience with populations ranging from preschool to adults in a variety of settings, including public and private schools; experience in self-contained learning support and emotional support classrooms; possesses the PA Child Care Director's Credential and Pennsylvania teaching and vocational certificates, PQAS Trainer, CDA Professional Evaluator.

### ERIN-CAITLIN RINKER

#### **Assignment: Organizational Advancement Coordinator**

M.Ed. in Counselor Education, Indiana University of Pennsylvania; B.A. in Psychology with a minor in Educational Psychology; Indiana University of Pennsylvania; experience working as a guidance counselor with children and teens from kindergarten through 12th grade; 1.5 years of experience working in the mental health field as part of the Student Assistance Program (SAP); five years of volunteer experience as a support group leader for a the grief program known as Safe Harbor through Abington Memorial Hospital; member of Chi Sigma Iota, Counseling Academic and Professional Honor Society International, Pennsylvania School Counselors Association (PSCA), American School Counselors Association (ASCA), and the National School Public Relations Association (NSPRA); possesses Pennsylvania Elementary and Secondary School Counseling certifications.

### ALLAN ROBERTS

#### **Teaching Assignment: Engineering Related Technology**

M.S. in Industrial Engineering and Management, Redding University; B.S. in Industrial Engineering, New York Institute of Technology; over thirty years of engineering, operations, and management experience; international experience in a variety of situations and projects with Processed Metals USA, American Meter Company, Abex Corporation, and Grumman Aerospace; positions held included Vice President of International Operations, Director of Manufacturing, Plant Manager, and I.E. Manager; holds U.S. patents; has developed and instructed a multimedia motivational program throughout the United States; member of Omicron Tau Theta, National Honorary Professional Graduate Society in Career and Technical Education, Temple University; senior member of the Society of Manufacturing Engineers, Institute of Industrial Engineers, and Robotics International; possesses Pennsylvania teaching certificate.

## FACULTY AND STAFF PROFILES

### ANTHONY ROGERS

#### **Teaching Assignment: Construction Carpentry**

Twelve years of occupational experience including owner/operator of a residential construction and carpentry business; six years of teaching experience; completed course work at Temple University, Moravian College, Delaware Valley College and Bucks County Community College; possesses Pennsylvania teaching certificate.

### BRADLEY ROSENAU

#### **Teaching Assignment: Commercial Art & Design**

M.A. (magna cum laude) in Art Education with an emphasis on Special Populations, Moore College of Art and Design; B.S./Masters equivalency degree in Technical Education, Pennsylvania State University; Adobe Certified Associates Educator in Certipoint Visual Communications using Photoshop, Illustrator, and InDesign; awarded the Pennsylvania State University College of Education Alumni Outstanding Professional Teacher Award in 2010; extensive studio and freelance work, including experiences with illustration and graphic design for University Graphics Services and USA Today newspapers; served as newsletter chairperson for Omicron Tau Theta, National Honorary Professional Graduate Society in Career and Technical Education, Temple University; served as newsletter editor for the Pennsylvania State University Alumni Association, Montgomery County chapter; possesses Pennsylvania teaching certificate.

### ROBERT SCHWARZ

#### **Teaching Assignment: Automotive Technology**

B.S. in Automotive Technology Management, Pennsylvania College of Technology; previous teaching experience as an automotive instructor at Community College of Philadelphia; over ten years occupational experience in dealerships and independently owned garages; ASE Certified Master Technician; ASE Certified L1 Advanced Engine Performance Specialist; ASE Certified Refrigerant Recovery and Recycling Technician; holds Pennsylvania Safety Inspector license, Pennsylvania Emissions license; Pennsylvania Emissions Repair Technician license; General Motors (GM) certified technician in all areas of an automobile; Saab Master-certified technician; possesses Pennsylvania teaching certificate.

### GREGORY SMITH

#### **Teaching Assignment: Practical Environmental Landscaping**

B.S. in Business with a concentration in Marketing, Mount St. Mary's College; fifteen years industry experience, including thirteen years as general manager of a company specializing in residential and commercial landscaping and hardscaping; certified Interlocking Concrete Paver Installer; member of Pennsylvania State University Agricultural Education Advisory Council; instructor, Hardscaping, Pennsylvania State University Agricultural Extension Education; advisor of Middle Bucks Chapter Pennsylvania State FFA; Chair of Pennsylvania State FFA Nursery Landscape Career Development Event; possesses Pennsylvania teaching certificate.

### KATHRYN STROUSE

#### **Assignment: Administrative Director**

M.Ed. in Educational Administration, Gwynedd Mercy University; B.S. in Education, West Chester University; sixteen years educational administration experience; twelve years elementary teaching experience; five years corporate training and employee relations experience; member of Pennsylvania Association of Career and Technical Administrators (PACTA), Pennsylvania Association of School Personnel Administrators, and Pennsylvania Association of School Administrators; possesses Pennsylvania Elementary and Secondary Principal certification and Director of Career and Technical Education certification.



## FACULTY AND STAFF PROFILES

### PAMELA SWOYER

#### **Assignment: Work-Based Education Teacher/Coordinator**

M.Ed. in Curriculum, Instruction, and Technology in Education, Temple University; B.S. in Retailing and Visual Communication, Syracuse University; five years broad-based executive, buying, human resources, managerial, training and recruiting experience in the retail industry; President of Bucks and Montgomery County Cooperative Education Association; member of Pennsylvania Cooperative Education Association, American and Pennsylvania Career and Technical Associations, Pennsylvania Business Education Association, National Association for Curriculum Development, Omicron Tau Theta National Honorary Professional Graduate Society in Career and Technical Education, Temple University; and the Career and Technical Student Organization SkillsUSA District 2 Board; possesses Pennsylvania teaching certificates in Cooperative Education, Marketing Education, Business Education, and Special Education K-12.

### MICHAEL SYKES

#### **Teaching Assignment: Building Trades Occupations**

Graduate of the Williamson Free School of Mechanical Trades; Business Administration coursework at Delaware Valley College; over twenty-nine years of occupational and supervisory experience in construction with an emphasis on home building, home remodeling, land acquisition, site improvement, entitlements, and customer service; certified in Green Advantage (Building Green Initiative), National Center for Construction Education and Research (NCCER) Core Curricula Instructor; HIPAA Certificate of Completion; Safety Committee Fundamentals certificate in Hazard Identification, Safety Alerts and Beyond; Quality Management certificate from Penn State University; achievement award for Essentials of Purchasing from Rutgers University; associate recipient of The National Homebuilder of the Year award from the National Association of Homebuilders; possesses Pennsylvania teaching certificate.

### CHRISTOPHER TULLY

#### **Teaching Assignment: Multimedia Technology**

M.Ed. in Education, Temple University; B.S. in Radio Television and Film, Temple University; Apple Distinguished Educator (ADE); ADE National Board Member; ADE International Board Member; Lead Teacher Association in Career and Technical Education; twenty-five years broad-based occupational experience producing, directing, and editing live television, radio and television commercials, promotional and corporate videos, as well as developing computer-based training programs, designing and managing websites as well as social media; assessment developer for Cisco Systems Incorporated, Apple Computers Incorporated, National Occupational Competency Testing Institute, and the Pennsylvania Department of Education; Apple Certified Trainer; Apple Pro User; Cisco Certified Instructor; member of the Association of Career and Technical Education (ACTE), International Society for Technology in Education, Omicron Tau Theta National Honorary Professional Graduate Society in Career and Technical Education, Temple University; Apple Certified Alliance, Apple Final Cut Pro Users Group, and the National Association of Photoshop Professionals; recipient of ACTE Exemplary Program, PA, 2007; Outstanding CTE Program, PA, 2008; Apple Exemplary Program, 2009-2010 and 2010-2011; Apple Distinguished Program 2011-2012, 2012-2013, and 2013-2015; Central Bucks Chamber of Commerce Tree of Life Outstanding Educator Award, 2010; ACTE T&I Outstanding Teacher of the Year Award, 2010; and C. Thomas Olivo Outstanding Service Award, 2011; Pennsylvania Association for Career and Technical Education (PA-ACTE) Outstanding Career and Technical Teacher, PA, 2014; possesses Pennsylvania teaching certificate.