Manufacturing Cluster (cont'd.)

WELDING

Students learn fundamental skills for welding carbon steel and other metals. Level I is a hands-on learning environment which develops skills from basic welds to various configurations and positions using a variety of hand tools, saw operation, drill press, hand and pedestal grinders and brake press used for fabrication preparation. Advanced level students progress to complex joints, cutting, various metal removal methods and read and visualize shapes from blueprints. Skill set and job readiness are measured by American Welding Society standards. Students can earn an OSHA Certification. Welding has articulation agreements with NCC and Penn Tech.

Service Cluster

COMPUTER NETWORKING

This instructional program focuses on design, implementation and management of linked systems of computers, peripherals and associated software, preparing students with the technical skills required to support networks and network users. This program includes instruction in networks technologies and standards; system design, architecture, network operating systems, security, communications protocols, client support, messaging services, network management, troubleshooting and server optimization. Those completing the program may be employed as a network administrator, network specialist, network technician, webmaster, client services analyst (end user) or network operator.

COSMETOLOGY

Students will learn the fundamental skills needed to sit for the Pennsylvania State Board of Cosmetology Licensing Exam. Level I students will be in a hands-on learning environment, developing skills using mannequins to learn permanent waving, shampooing and styling, manicuring, haircutting, facials, scalp treatments and color. Each student works independently and advances from one skill to another throughout the training process. Advanced level students increase their skill set by working on clients in the school’s salon.

ESTHETICS

Students will learn the fundamental skills needed to sit for the Pennsylvania State Board of Estheticians Licensing Exam. This is a 300 hour course which can be completed in one year (2 blocks per day). Students will be in a hands-on learning environment, developing skills in skin diseases and disorders, facial hair removal, facial massages and treatments, make-up application, anatomy of the skin and electrotherapy. Students will be increasing their skill set by working on clients in the school’s salon.

PROTECTIVE SERVICES

Students learn the technical knowledge and hands-on skills required for entry-level duties as a police officer, firefighter, paramedic, military service and other safety services, especially in emergency and disaster situations. Physical development, discipline and self-confidence skills are emphasized due to the nature of the specific occupations. Advanced level students receive training in social and psychological skills, map reading, vehicle and equipment operations, the judicial system, prehospital emergency medical care, appropriate emergency assessment, treatment and communication. Students have the opportunity to earn their CPR, First Aid, AED, NIMS, PATH, PPBT, OCAT and Personal Protection Control and Defense certifications.

Transportation Cluster (cont'd.)

AUTOMOTIVE TECHNOLOGY

The Automotive program is accredited by the National Automotive Technician Education Foundation (NATEF) under the approved Maintenance & Light Repair (MLR) requirements. The curriculum follows the Automotive Service Excellence (ASE) frame-
THE FASHION INSTITUTE AT BAVTS

Students learn skills knowledgable to enter the competitive industry of Fashion. Level I students explore core design principles by studying the history of fashion and costume, learning basic fashion illustration techniques, acquiring skills in dressmaking and pattern making, and becoming knowledgeable in all aspects of buying, marketing, and retailing. Level II students will incorporate personal interests in the design and technical studios, and delve into matters of production methods and practices of daily living and first aid skills. Students focus on their Senior Thesis and are required to develop a body of work from design ideas to final product that represents their fashion and design philosophy.

GRAPHIC COMMUNICATIONS (PRINT TECHNOLOGY)

Students learn how to create marketing products to promote businesses and events using a variety of printing techniques, including digital printing, screen printing and large format printing. Level I students are in a hands-on learning environment, developing skills using the latest graphics software and technology to design the principles of design, typography, use of color, layout, print production, finishing and bindery. Level II students increase their skill set by compiling a portfolio and using their design and print skills for school and community projects. The program is PrintED accredited and students can earn industry certifications in 6 areas. The program has an articulation agreement with NCC for 4 credits in Graphic Arts.

VIDEO & MEDIA ARTS

This 3 year program consists of Audio and Television production in the first year to run a mixer, camera or video editor. Students will learn the core design principles using various programs such as Photoshop and Illustrator to create video layouts and other visual elements. While still implementing design skills, advanced level students will be in a hands-on environment, developing skills while using the hands-on tools of the trade, which include video production, computer applications, video editing, photography and motion graphics. Level II students will be increasing their skill set by working on the BAVTS House Project. Students receive training in APA Section 609 and ACGC gas pipe, leading to National Certifications. Students have the opportunity to earn an OSHA Certification.

WEB DESIGN & DEVELOPMENT

Students will learn how to design and develop websites using a combination of creativity and computer science. Students will be in a hands-on environment, developing skills while using the hands-on tools of the trade, which include website design and development, programming languages and scripting tools. The program has an articulation agreement with NCC for 4 credits in Computing Graphics.

Creative Cluster

COMMERCIAL ART (ADVERTISING DESIGN)

Students will learn the principles of graphic design, typography, basic illustration, use of color, page layout, advertising and digital photography. Working with the latest graphic software and technology, students create brochures, posters, magazines, layout designs, logos and advertising campaigns. Students will learn how to apply their artistic talents today's market, beyond pen and paper, to the computer and using the internet. Advanced level students will be increasing their skill set by compiling a portfolio and using their design skills in actual advertising campaigns. The program has an articulation agreement with NCC for 4 credits in Computer Graphics.

CULINARY ARTS CLUSTER

Students will learn the fundamental core competencies in sanitation, safety, service, and food management, providing the student with the necessary food service skills for the professional experience. For savviness in the industry, food safety, food and nutrition, catering, and food and beverage management. Level II students will enter the industry to become Head Chefs, Executive Chefs or Executive Sous Chefs. The program has an articulation agreement with the National Restaurant Association's ServSafe certification.

Manufacturing Cluster

ELECTRO-NIC TECHNOLOGY

Students will learn the fundamental skills related to the electronics industry. Level I students will be in a hands-on learning environment, developing skills in AC/DC Circuits, Digital Electronics, Solid State Circuits and Basic Computer Applications. Advanced level students will be increasing their skill set by designing and manufacturing electronic assemblies. Students have the opportunity to earn certifications for IPC-610 Electronics and J-STIP-005.

INDUSTRIAL DESIGN/ADVANCED MAUFACTURING

Students will use critical thinking and the design process to bring new ideas to life for companies, communities and citizens. Students will learn fundamental skills for machining metal and other materials through the use of lathes, mills, drills, saws and other technical skills. Students will learn design fundamentals and leading and precision measurement skills. Computer Numerical Control (CNC) programming and machining operations are emphasized in the intermediate and advanced levels of the program. Students have the opportunity to earn national certifications and articulated credits with Penn Tech.

THE ACADEMY FOR APPLIED ENGINEERING

Students will learn about various areas of the engineering industry including, but not limited to Mechanical, Electrical, Civil and Chemical. The program is an academic course at Lafayette College bound to SENORS with learning components in basic sciences, computer literacy, and related discussion and research. Lab activities consist of individual and group projects designed to reinforce the theory components, permitting the students to participate in actual engineering projects involving design, construction and prototype testing. The program has a major group project which will be analyzed and judged by professors from Lafayette College. The program offers the opportunity to earn 4 credits from Lafayette College and an opportunity to Engineering course where students participates in labs and lectures at the college.

HEALTHCARE

Students will be introduced to various careers in the healthcare industry. Core curriculum focuses on anatomy and physiology, medical terminology, medical math, medical professionalism and fundamentals of patient care. The academic content prepares students for entry level healthcare positions such as medical assistants, medical laboratory technicians, physical therapy, medical assistant, occupational therapy, radiology, ultrasound technologist, massage therapy and many more. Students also learn basic patient care skills such as vital signs, which are essential skills. Students will practice these skills on their peers as well as on simulation mannequins. Advanced level students will be increasing their skill set by being taken into the community for various observations and/or patient care. Students have the opportunity to earn their First Aid, CPR, AED and Bloodborne Pathogens certifications. The program has an articulation agreement with NCC.