SUN AREA TECHNICAL INSTITUTE COURSE BOOKLET

2020-2021

SUN Tech is a future focused, 21st century, technical school offering 18 programs of study, with over 40 industry credentials and licenses.

SUN Tech courses are designed to prepare students for employment and/or education beyond high school. Students electing this program may attend SUN Tech full-time as a senior. A cooperative education program in which students gain on-the-job experience is an integral component of the technical school.

Many students decide to use SUN Tech as a career path to higher education. A number of SUN Tech's programs are articulated with post-secondary institutions to give students a head start on college and their careers. As a SUN Tech graduate, you can be awarded advanced placement PA SOAR credits to over 400 other schools of your choice.

SUN Tech's goal is to provide opportunities for student success and to give them a competitive edge in today's economy. Tours and visits to SUN Area Technical Institute are available upon request.

 For more information visit our website at www.sun-tech.org.

SUN TECH CAREER PATHWAY STRUCTURE
Pennsylvania has identified five broad "Career Pathways" to help students explore career interests

Arts & Communications
• Advertising Art & Design
• Computer & Networking Technology
• Electronics Technology

Human Services
• Cosmetology
• Criminal Justice
• Culinary Arts

Engineering & Industrial Tech
• Advanced Precision Machining
• Auto Technology
• Carpentry
• Collision Repair Technology
• Computer & Networking Technology
• Diesel & Truck Technology
• Electronics Technology
• Electrical Systems Technology
• HVAC & Plumbing Technology
• Masonry
• Welding
• Wood Design & Technology

Business Finance & Information Tech
• Computer & Networking Technology
• Electronics Technology

Science & Health
• Culinary Arts
• Dental Health Technology
• Health Professions & Related Sciences
• Wood Design & Technology

Cooperative Education and Qualifications

The Cooperative Education Program is a combined effort of SUN Tech and business and industry for training and offers opportunities for students to become directly involved with employers prior to graduation. The primary goal of the program is to introduce the student learner to the world of work via actual experience on the job. Cooperative Education is for the higher achieving student (95% attendance rate and 80%+ program grade) that wants to combine real world work with high quality education. This possibility exists in the 3rd and more importantly 4th marking periods of the year. Career assistance exists for students upon graduation, as well.

Students Occupationally & Academically Ready (SOAR) Credits

SOAR is a Pennsylvania Department of Education Program that eases student's path from high school to college into high demand occupations by allowing students to earn college credits while still in high school. Learn more at www.collegetransfer.net.

Dual Enrollment Programs

Here's How Penn College NOW Courses Benefit Students

SAVE MONEY!

Tuition for Penn College NOW is free for students! The more Penn College NOW courses a student takes (*at no per-credit cost),* the less money a student has to spend once it's time to earn a degree after high school.

BUILD CONFIDENCE!

No matter what you plan to do after graduation, if you have already shown success in college courses, you will be more competitive in both the job market and the college admissions process. Success in challenging coursework builds confidence as well as skills!

SAVE TIME!

Students who have already taken college coursework spend less time earning a degree.

PREP FOR COLLEGE

Connect to "the college experience!" Through Penn College NOW, students have the chance to visit our campus, see our facilities, and meet our college faculty.

ADVANCED PRECISION MACHINING

Course No.____

Grades 12   1 year, 6 credits

Become a CNC machinist in this program, just like the ones seen on TV's "Titans of CNC" and "How It's Made". Imagine designing or inventing something and being able to build it yourself.

Outcomes: By developing the skills necessary to operate computerized (CNC) and conventional machinery you can secure a high paying job and earn college credits. Working with the latest Mastercam software, you can design and build amazing projects using CNC and laser machines just like the ones used in industry. Students can start earning up to $16.00 per hour or more working through the Co-Op program while still in school. Students earn nationally recognized credentials through NIMS (National Institute for Metalworking Skills). Dual enrollment (PC NOW) is offered in conjunction with the Pennsylvania College of Technology (Penn Tech).

Description: A machinist doesn't think of metal as something hard and unchangeable, because they can change it into anything they want. Students setup and operate machinery to fabricate and repair parts and components. A machinist performs cuts on materials to bring it to the desired shape and dimensions. Metal blocks can be transformed into intricate parts such as sprockets, gears, pistons, tools, wheels, and molds. These parts are then assembled into cars, bikes or the machinery which mass produce every conceivable manufactured good. Machinists are the foundation of all industries, and without them no manufacturing or construction job would exist. Machinists are the only skilled workers capable of reproducing the actual tool they are using! Advanced Precision

Machining students are highly sought out by local employers and have one of the highest job placement rates in the school. Many students pursue careers in engineering. You can qualify for advanced placement and/or dual enrollment at the Pennsylvania College of Technology, Thaddeus Stevens School of Technology and the Harrisburg Area Community College.

Requirements: Good hand-eye coordination and attention to detail. The ability to do accurate work is desirable. Basic and/or industrial math, and measurement would be helpful.

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ADVERTISING ART & DESIGN   Course No. ___

Grade: 11, 12   1 year, 6 Credits

ARE YOU AN ASPIRING DESIGNER? WOULD YOU LIKE TO GET PAID FOR YOUR CREATIVITY? If you have a passion for design, a need to be creative, and a dream of becoming a successful graphic designer, then the Advertising Art & Design program at SUN Tech is for YOU!

Outcomes: You can experience a broad range of creative careers while still in high school so that you can:

- Discover where your talent lies
- Develop a professional portfolio
- Be successful at design college
- Obtain a job you actually love

You will use the most modern technology and techniques to increase your skills in graphic design, illustration and photography.

Description: The program emphasizes your creative growth through instruction in art principles as well as technology skills through computer-based projects. You will gain a

working knowledge of color, typography, layout, and printing while you master Adobe software on the Mac and PC. You may find employment in graphic design, advertising, publishing, web page design, illustration, or photography. Salaries in this field range from $27,200 to $81,620 yearly within our local area.

Requirements: Artistic talent, originality, communication skills, and dependability are needed. You must be able to give and take constructive criticism, meet deadlines, and work effectively by yourself or with a team. Computer experience, writing, and math skills are also important. Flexibility and readiness for fast-paced priority changes is a must!

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**AUTO TECHNOLOGY**   Course No. _____

Grade 12   1 Year, 6 Credits

Do you like taking things apart to see how they work?   Do you like mechanical things like motors and engines?

Make money while enjoying what you do! The Automotive Technology Program at SUN Technical Institute will teach you what you need to know to diagnose and repair vehicles, so you can make a great living doing something you love to do!

Outcomes: You will have the opportunity to obtain a PA State Inspection License, Air Conditioning Certification, SP/2 Safety Certification, Valvoline Oil Certification, and NATEF Certification. The certifications and skills learned allow you to enter the automotive repair industry with skills and certification to back up those skills. You also have the opportunity to qualify for advanced placement at post-secondary institutions such as Penn College, Harrisburg Area Community College, and Northwestern Ohio.

Entry-level auto technicians generally earn around $10.00 per hour, progressing up to $30.00 per hour with experience and training. An "A" level technician in a mid-sized city such as Scranton can earn up to $100,000 per year. The education received through the Automotive Technology Program allows you to climb this salary ladder very quickly.

Description: In the Automotive Technology course at SUN Tech, you are given the opportunity to learn the necessary skills and competencies to maintain, diagnose and repair the advanced systems on modern automobiles. You can use common hand tools as well as power tools such as impact wrenches, grinders, drills, tire machines and automotive lifts. You will also be using state-of-the-art equipment such as electronic engine analyzers, oscilloscopes, scan tools and internet-based information systems.

The Automotive Technology program consists of daily theory lessons which teach the skills needed to complete nearly 400 hands-on exercises involving real cars and light trucks. Both follow NATEF guidelines and expose you to most of the operating systems on modern automobiles. Areas covered include electrical systems, steering and suspension, braking systems, engine repair, computerized powertrain control, and air conditioning.

Requirements: You should possess a desire to learn with a strong work ethic. You will learn by actively participating in select live work and structured shop projects. If you are not afraid of hard work this may be the program for you.

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CARPENTRY
Course No. _____

Grade 11, 12   1 Year, 6 Credits

WOULD YOU LIKE TO POSSESS THE SKILLS NEEDED TO BUILD A HOUSE?

If you like working with your hands, if you love to build projects, problem-solve, and tackle new challenges every day, visit the Carpentry Program at SUN TECH.

Outcomes: Learn skills in carpentry that you will use the rest of your life whether on the job in construction or on your own home. You will also have the opportunity to earn dual enrollment college credits while completing the carpentry curriculum.

Description: As a SUN TECH carpentry student, you will learn all aspects of residential and light commercial construction through classroom theory and practical shop instruction and projects. All areas of residential construction will be covered, including but not limited to, floor, wall and roof framing, exterior and interior finish.

Look what you can learn in the Carpentry Program:

- Learn the skills necessary to properly build a house
- Work in a team setting.
- See the day go by so quickly you will wonder what happened to the time.
- Work on community service projects off campus.
- Use the most advanced tool, equipment and materials
- Be challenged every day by your instructor
- Earn college credits
- Do something different everyday

Emphasis is placed on developing the skills you will need for your future as a contractor.

Requirements: Students must possess the desire to learn with a strong work ethic. If you are not afraid of hard work, this may be the program for you. See your guidance consular to arrange a visit.

Dual Enrollment PC NOW Courses you can complete while in this program:

- BCT103 Construction Hand & Power Tools   1 Credit

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COLLISION REPAIR TECHNOLOGY
Course No._____

Grades 11, 12   1 Year, 6 Credits

DON'T GET BENT OUT OF SHAPE OVER YOUR FUTURE.

Become a Collision Repair Technician and learn to straighten damaged cars and your future. You will learn many techniques seen on the TLC channel with host "Chip" Foose and others.

Outcomes: By developing the skills necessary to become an entry level Collision Repair technician you can secure a high paying job and earn college credits. You will have instruction in State-of-the-Art I-CAR certified repair techniques in the following areas: Non-structural analysis and damaging repair, painting and refinishing, plastics and adhesives, structural, analytic and damage repair. With great attendance and grades, you can participate in the Co-op program and earn a salary during second semester of the school year.

Description: The Collision Repair Technology course at SUN Tech has been evaluated by the "National Automotive Technicians Education Foundation, Inc." (NATEF) and certified by the "National Institute for Automotive Service

Excellence" (ASE). The course includes theoretical study and practical application in all areas related to the collision repair industry including major and minor collision repair, MIG welding, base-clear and tri-coat refinishing, color matching and blending, SMC and urethane plastic repair, glass service, and supplement restraint systems. You will be evaluated on practical hands-on application skills and through ASE type-written examinations. You may be eligible for one-year service credit toward applying for ASE certification in any or all of the four specialized technical areas within the trade. Related areas of employment are: insurance adjustor, automotive refinish, parts and sales, and assembly line refinishing.

Requirements: Written Tests, Practical Tests, Homework, Cross Cluster Projects (team learning), and Individual Projects. Also, knowledge in the following areas would be to the student's advantage, but all areas are NOT required. Basic Math, Trade Math, Bookkeeping, General Science, Physics, Industrial Arts, Metal Working, Mechanical Drawing, Computer Skills.

Dual Enrollment PC NOW Courses you can complete while in this program:

- ABC100-Introduction to Non-Structural Collision Repair 2 credits
- ABC104-Introduction to Non-Structural Collision Repair Applications 3 credits
- ABC125-Basic Refinishing   2 credits
- ABC129-Basic Refinishing Applications 3 credits

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COMPUTER & NETWORKING TECHNOLOGY

Course No. ____

Grades: 11, 12   1 Year, 6 Credits

ARE YOU A COMPUTER GEEK OR HAVE GEEK ENVY? Do you love working with computers?

Do you love taking computers apart and putting them back together? Do you ever wonder how you can send an email half-way around the world in less than a second? Do you ever think about how data travels down fiber optic cable as modes of light, turning on and off millions of times per second? Would you love to know how to build that water cooled, Monster Machine that will make all your friends green with envy? If you answered "yes" to any of these questions, you need to check out the Computer Networking Technology program at SUN Tech.

Outcomes: You can learn entry level skills in Computers, Network installation, Web Design, Web Animation, Network Administration, and Fiber Optics that will help you prepare for an exciting and well-paying career in the computer field.

Description: As a SUN Tech Computer and Networking Technology student, you will learn a wide range of skills that will enable you to get an entry level job, skills to give you a head start on college, and even a way to make good money while going to college!

Look at all the exciting things that "you" can learn at SUN:

- Build, upgrade and repair computers
- Setup and configure routers, switches, firewalls, and servers
- Design web pages and flash animations
- Administer a computer network, setting up user accounts, servers, etc.
- Become Certified in copper and fiber optic network cabling
- Earn college credits from Penn College saving thousands of dollars
- Use cutting edge technology to prepare you for the workforce.

- Build laptop computers that you will use throughout the year!

Requirements: Knowledge in the following areas are highly recommended, but not mandatory: Keyboarding, Algebra 1, Technical Writing, and the Microsoft Office Suite.

Dual Enrollment PC NOW Courses you can complete while in this program:

EET 145-Introduction to Networking 4 Credits

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COSMETOLOGY   Course No. _____

Grade 12   1 Year, 6 Credits

Whether you have always had a love for hair and makeup, nail care and beauty or whether you are looking for a career with exciting diverse opportunities, driven by a sense of fashion and business; Cosmetology at SUN Tech can set you on a fast track to a successful future.

By starting your cosmetology training while you are in high school you will be able to make a smooth transition to a college related partner career, pursue advanced training in the cosmetology profession or you can opt to begin a lucrative wage-earning career working in or owning a salon or spa. And best of all, you have the choice of working in a local salon and staying close to home or traveling to Hollywood, the fashion stages of New York or the platform arenas of competitive styling around the world!

Outcomes: The Cosmetology Program at SUN Tech is designed to provide you with the necessary education needed to pass the Pennsylvania State Board Exam for licensing; but more importantly prepares you to successfully pursue career opportunities in all aspects of the beauty industry. Whether you

wish to pursue a job as a hair stylist, beauty therapist, or nail technician; or whether you wish to pursue a job working in sales, marketing, education or business management for a beauty manufacturer or company; it can all begin with a decision to start your beauty education while in high school.

Description: The Cosmetology course at SUN Tech includes: theoretical studies and the application of all aspects of hair, skin and nail care; including anatomy/physiology, decontamination, safety and management. Eighty percent of all course activities are hands-on applications including the operation of a clinic/salon area where you will work on clients just as you would in a licensed salon.

The topics and skills covered include hairstyling, hair cutting, hair coloring and lightening, chemical texture services, braiding, skin care, massage, makeup, hair removal, nail care, artificial nails, male hair cutting and styling and product knowledge.

In order to acquire the 1250 hours of supervised instruction required for the PA State Board of Cosmetology licensing examination, you will attend a 300-hour summer program at SUN Tech prior to your senior year at SUN Tech.

Requirements: If you like working with people, if you are interested in fashion trends and helping people look their best, if you enjoy working in a fast paced environment where no two days are ever the same, if you like to take what you know and transfer it to what you can do and create; the Cosmetology Program at SUN Tech is for you!

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CRIMINAL JUSTICE   Course No. ____

Grade: 11, 12   1 Year, 6 Credits

Are you a people person who enjoys interacting with all types of people, using your mind to look at things from different perspectives, or solving puzzles? Become a part of an exciting criminal justice career! Television, movies, and video games only show a portion of the many rewarding career opportunities awaiting you. Criminal justice is the second largest employer in the Susquehanna Valley and offers entry level salaries ranging from $ 30,000 to over $75,000 annually.

Outcomes: As a SUN TECH criminal justice student, you will have the opportunity to earn up to 6 college credits while building an impressive resume. Criminal justice offers the following certificates:

- • Federal Emergency Management Agency National Incident Management System (FEMA NIMS) certificates, 100, 200, 700, and 800
- • American Safety Health Institute - CPR
- • American Safety Health Institute – AED/First Aid
- • Federal Emergency Management Intro to Hazmat Materials
- • The Association of Public Safety Communication Officials (APCO) Telecommunicator 1

Description: This program offers the entry-level skills and knowledge required for employment in criminal justice professions such as police officer, security officer, correctional officer, 911 dispatcher, store security and military police. These skills are acquired through a combination of classroom training and hands-on experience. The program offers job shadowing experiences, featured guest speakers, and field trips.

Requirements: You must possess the desire to learn and be of strong moral character. Many careers in criminal justice are closed to individuals with any arrest history. Due to the required additional training and education beyond high school, this program will require excellent written and oral communication skills, emphasizing high academic standards. Hand/eye coordination, following and applying instructions, problem solving skills, and physical fitness are also strongly encouraged.

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Culinary Arts   Course No. ___

Grades: 11, 12   1 Yr., 6 Credits

Do you want to be the next Food Network Star? Attending the SUN Tech Culinary Arts Program will put you on the right track to achieving this goal! In America, Service Workers make up 60% of the workforce. SUN Tech's Culinary Arts Program will teach you the skills needed to enter the exciting world of culinary arts.

Outcomes: As a SUN Area, Technical Institute student enrolled in the Culinary Arts Program, you will have the opportunity to learn the skills necessary to work in a variety of food service positions. Your educational experience in this program will prepare you for a career in the food service industry and provide you with the prerequisites to continue your education at a post-secondary school or college in a food-related field. You will have an opportunity to work towards earning your ServSafe Certification; a recognized industry certification increasing your employability. You may also have the opportunity to earn advanced placement credits at the college level. Does working and earning money while enrolled at SUN Tech sound interesting? Culinary Arts Program students may also choose to

participate in the Co-op program and work in the Culinary industry.

Description: The SUN Tech Culinary Arts Program will provide you with the skills and experience needed to prepare for an entry-level position in the Culinary industry.

The skills you will learn include:

- Basic operation of a restaurant
- Food preparation
- Safety and Sanitation
- Operation and maintenance of restaurant tools and equipment
- Creating and planning of menus for restaurant and catering functions
- Cooking & Baking
- Customer service including; hosting, serving, and bussing of tables.
- Cost Control

Requirements: You must possess a desire to learn and an interest in a career in the Culinary industry. The program requires strong verbal communication skills and the ability to work with others in a positive manner. Hand-eye coordination and fine motor dexterity skills are necessary. It is important that you are able to count money, follow instructions, remain flexible to changing routines, and take direction from others.

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DENTAL HEALTH TECHNOLOGY

Course No. _____

Grades: 11, 12   1 Year, 6 Credits

Get the root of your education in Dental Assisting. By coming to SUN Tech, you will be prepared with a variety of hands-on experiences and practical clinical training that will lead to careers as a Dental Assistant and other dental auxiliaries.

What's in it for you: By completing this program you will obtain leading edge training in the following areas:

- Earn advanced college level education by participating in dual enrollment through Harrisburg Area Community College to gain an impressive 11 credits.
- PC NOW Penn College Dual Enrollment to earn 1 Credit in Dental Terminology.
- Students will participate in a clinical rotation to gain valuable skills, procedures, and patient care for all aspects of the dental profession.
- It also prepares students to take the Pennsylvania Radiology Registration examination through the Dental Assisting National Board (DANB).
- Prepare for emergency situations and health-related experiences.
- Obtain CPR/AED and First Aid Certification.
- Follow OSHA and CDC guidelines for dental professions so that your skills will be current and up to date.
- Obtain Career Safe Certification.
- National Alliance of concurrent enrollment partnerships.
- Students will participate in job shadows of Dental Professions.
- Target employability skills that will lead to family sustaining wages.

Description: As a dental assistant, you will learn to prepare patients for treatment, sterilize instruments, practice infection control, prepare materials, and make study models from impressions. You will also be exposed to digital x-ray technology and provide chairside assisting with a local dentist to gain clinical experience.

Requirements: Radiology Registration examination through the Dental Assisting National Board (DANB); practical's, tests,

quizzes, homework, and completion of clinical rotations.

Dual Enrollment PC NOW Courses you can complete while in this program:

DEN110-Dental Terminology

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DIESEL & TRUCK TECHNOLOGY
Course No. ____

Grade 12   1 Year, 6 Credits

Would you like to learn how to service, repair and maintain the trucks that bring you everything that you come in contact with every day?

If you enjoy solving problems, working with your hands, and learning new things every day, then the Diesel and Truck Technology program may be for you.

Outcomes: By developing the skills that are necessary to maintain and repair today's sophisticated trucks and other Diesel-powered equipment you can earn a good starting wage as an entry level technician. You will also have the opportunity to earn college credits though the Penn College Now Program while completing the Diesel curriculum that will help you get a start on furthering your education.

Description: The Diesel and Truck Technology course at SUN Tech prepares you for higher education or employment in the field of truck and bus repair or maintaining diesel engines and other related equipment used to power ships, trains, electric generators and construction machinery. A working knowledge of the trade is taught through theory and practice, disassembly of diesel engines, clutches, brakes (hydraulic and air brakes), electrical systems and electronic trouble shooting. If you are trained in Diesel Technology

you can secure employment as a technician working on trucks, buses, agricultural and construction equipment. You will be given the opportunity to attain a Pennsylvania Vehicle Safety Inspection license and prepare to take the Automotive Service Excellence (ASE) tests.

Prerequisites Requirements: Along with a strong desire to learn and good work ethic, knowledge in the following academic areas would be to your advantage, but are NOT required: General sciences, Mechanical Drawing, Basic Math, Business Math, Trade Math, and a basic understanding of electronic/ electrical and computers.

Penn College Now courses that can be completed while studying at SUN Tech include:

DSM109-Basic Fuel Systems   3 Credits

DSM141-Heavy Duty Brake Systems 2 Credits

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ELECTRICAL SYSTEMS TECHNOLOGY

Course No. ____

Grades 11, 12   1 Year, 6 Credits

A HIGH PAYING JOB IS WAITING FOR YOU!

Be a success in life by starting an exciting career in the electrical industry by gaining skills that demand high wages! Today the demand for electricians is at an all-time high. From linemen to residential electricians many career opportunities are available. Electrical maintenance technicians, copper networking and fiber optic installers, and electrical construction are just a few of the jobs in high demand.

By attending the SUN Area Technical Institute's Electrical Systems Technology program, you can:

- Learn a skill that will lead to a high paying job.
- Enter a field where skilled technicians are in high demand.
- Earn college credits while in high school.
- Start your own business.
- Skills you will acquire in the SUN Tech Electrical Systems Technology program include:
- Electrical Safety
- Learn how to wire a home to meet National Electrical Code requirements.
- Design and troubleshoot motor control circuits used in industry.
- Develop Programmable Logic Control (PLC) programs that control modern day manufacturing processes.
- Gain an understanding of the fundamentals of electricity.

Outcomes: After graduation you will be ready to continue your education with advanced placement earned at many institutions of higher learning or you can enter directly into the electrical field with a wealth of knowledge and skills attained in the Electrical Systems Technology class. You will be prepared for positions such as an Electrician's Assistant, Residential Electrician, Commercial Electrician, Electrical Maintenance Technician, Copper & Fiber optic Cabling Technician, or a variety of positions related to providing electrical products and services.

Description: The Electrical Systems Technology class provides training through a combination of classroom instruction and practical, hands-on assignments. Projects, both within and outside of the school, give you hands-on experience in a safe, supervised environment. You will learn to design and build electrical systems to meet the requirements of the National Electrical Code and OSHA. Emphasis is placed on developing skills used in residential, commercial, and industrial installation, design and repair. Local methods, materials and requirements are taught, therefore making you highly employable.

Prerequisites: Good hand-eye coordination, ability to work with tools, manual dexterity, problem solving skills, ability to follow instructions, and good communication skills are needed to succeed in the Electrical Systems Technology class. Knowledge in the following areas will also be to your advantage, but all areas are not required: Industrial Math, Algebra, General Science, Mechanical Drawing, and Computer Basics.

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ELECTRONICS TECHNOLOGY   Course No. _____
Grade 12   1 Year, 6 Credits

Ever picture yourself as a Commercial Unmanned Aircraft Pilot, engineer for NASA, gaming engineer or medical equipment engineer? Yes, engineers and technicians are the people who create the hardware and software for gaming systems. Past graduates of the Electronic Technology class work for NASA, AAI (Military Drone Engineers) and companies like American Medical Equipment Corporation. Imagine yourself designing your own robot or drone and being part of a "team build". You will learn wind and solar energy basics on REAL windmills and a tracking solar panel array. Did you ever think that you could repair your own electronic equipment or phone? You can, after your year at SUN! Ever set up a home theater system or security system correctly? You can do all these things and more in the SUN Area Technical Institute's Electronics Technology program.

Outcomes: You will develop the skills needed to design and build electronic circuits dealing with drones, phones, computers, robots, audio, video and much more. You can also earn a semester of college credits in the PCNow dual enrollment program at SUN. You will enter the workforce or college with a definite advantage over people that do not have any electronic skills.

Description: The Electronics Technology course at SUN Tech teaches you the basic laws of electricity and applications of electronic circuitry through study and laboratory experimentation. You will also train for your FAA Part 107 Unmanned Pilot's License as well as the following list of projects and challenges.

- Learn to fly drones correctly and legally. Get your FAA Part 107 license
- Create your own circuit designs! – amplifiers, digital clocks, car alarms, anything!
- Work on campus with Penn College instructors – robotics labs – fiber optic labs
- Prepare and take for your FAA Part 107 Unmanned Aircraft License.
- Do different things every day. Fly drones, build desktop computers, setup security systems, setup home theater systems, build robots, build laptops, fix your phone.
- Repair you own equipment. You will have the skills to fix your broken electronics and your phone!
- Complete your first semester of Penn College Electronics courses during your senior year of high school.
- Learn wind, solar technology on real windmills and tracking solar panel arrays.

Requirements: You must have a desire to understand how electronic devices work and a strong work ethic. Attention to detail and patience are definite assets in this course of study. Talk to your counselor about visiting SUN's Electronics Technology class today.

Dual Enrollment PC NOW Courses you can complete while in this program:

EET114 Digital Circuit Applications   1 Credit

EET115 Introduction to Digital Electronics   3 Credits

EET116 Electronic Circuits and Devices I

5 Credits

EET124 Engineering, Technology and Society   3 Credits

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HEALTH PROFESSIONALS & RELATED SCIENCES
Course No. _____
Grade 12   1 yr., 6 Credits

HAVE YOU EVER HAD A DREAM TO BE A DOCTOR, NURSE, OR TAKE CARE OF THE ELDERLY? The Health Professions Program here at SUN Tech allows you to live out your childhood dream. If you like working with the public, show empathy to others, have good communication skills and have a desire to become a health care worker, visit the Health Professions Program at SUN Tech.

Outcomes: The skills that you will be taught in the Health Professions Program you will use on a daily basis. You will have the opportunity to earn a Certified Nurse Aide Certification which is valuable whether you choose to enter the work force immediately after graduation or further your education. You can also earn college credits while completing the health curriculum at SUN Tech.

Description: The Health Professions program at SUN Tech helps you learn the theory and practical skills required to help prepare you for a career in the health field. You will learn the duties of a Certified Nurse Aide and have the opportunity to perform skills learned as you deliver quality resident care while at our clinical affiliations at a local long-term care facility and local community hospital. You will learn the importance of commitment to other members of the health care team. Preparation is primarily in a simulated work environment combined with clinical application. Core subjects to be covered: 150-hour State Approved Nurse Aide course, anatomy and physiology, Medical Abbreviations, Medical Terminology, Infection Control and Safety, Basic Nursing, Medical Assistant and Receptionist Skills, CPR/First Aid, Career Exploration, Employability Skills and Leadership.

Prerequisites: Knowledge in the following areas would be to your advantage, but are not required: Algebra, Basic Math, Biology, Chemistry, General Sciences, Keyboarding and Communications.

Program Requirements: PA-CHRI (Act 34-Criminal Records Check) and FBI report (Act 114-Federal Fingerprinting) is required prior to the first day of class. FBI report is only required if you have not been a PA Resident for 2 consecutive years. Uniforms, Physical Exam, TB tests, and Immunization records are also required.

Dual Enrollment PC NOW Courses you can complete while in this program:

Medical Terminology (MTR 104): Reading Placement Test 3 Credits

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HVAC & PLUMBING TECHNOLOGY

Course No. _____

GRADES 11, 12   1 yr., 6 Credits

How would you like to learn more about green energy? Become an HVAC service technician or an HVAC installer of residential or commercial systems! If this sound interesting than the HVAC program at SUN AREA TECHNICAL INSTITUTE is the program for you.

Outcome: You can learn the skills necessary to gain employment in the HVAC and plumbing field. Your training will prepare you for residential or commercial installation and or service of all types of heating and air conditioning equipment. The primary goal of the HVAC program is to provide you with theoretical and a practical hand on learning environment. You will have the opportunity to obtain either entry-level employment in the trade or earn advanced placement credits toward furthering your education at many institutions of higher learning while still in high school.

Description: HVAC & Plumbing Technology students at SUN Tech learn through classroom instruction and practical shop assignments. You will learn basic system design as well as the installation and servicing of modern HVAC systems through practice in the laboratory or at an actual job site. Emphasis is placed on developing student skills used in residential and commercial installation and repair jobs. Additional training within this trade area is available in green technology learning about solar and geothermal energy. Please contact me at gsnook@sun-tech.org for more details or visit the www.sun-tech.org for more information.

Requirements: A successful student must have a desire to learn. You will learn through actively participating in all of the following: individual

and team projects, professional development activities, written and practical evaluations, and related in and out of class assignment.

Dual Enrollment PC NOW Courses you can complete while in this program:

ACR111	Introduction to Refrigeration	5 Credits

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__MASONRY__	Course No. _____

Grades 11, 12	1 Year, 6 Credits

WOULD YOU LIKE TO LEARN A HIGH-PAYING AND IN-DEMAND TRADE THAT WILL PROVIDE FOR A GREAT FUTURE?

By attending the Masonry Program at SUN Area Technical Institute, you can learn the skills necessary to enter the Masonry workforce immediately upon graduation, or to advance onto higher education opportunities. Perhaps you want to become a supervisor or even own your own business someday, YOU CAN MAKE IT HAPPEN! Take the first step by contacting your guidance counselor and arranging a visit to the Masonry Program.

BUILD YOUR FUTURE…. BRICK by BRICK!!

Outcomes:

- You will progress through a program where the mastery of new skills will go hand-in-hand with the potential for bigger paychecks.
- Your advancement will not only be measured in terms of dollars, it will also be measured in terms of accomplishment.
- By the time you enter the workforce you will possess literally hundreds of complex construction skills.

- You may even advance as a site foreman, an estimator, or a contractor. It is individual motivation more than anything else that will determine how far you will advance in Masonry.

Description: Work in Masonry is a combination of physical and mental activity. Skills to master the tools of the trade along with efficient work habits are what you will learn at SUN. These skills will enable you to construct quality work that will stand the test of time. You will also develop an understanding of mathematics as it relates to building materials as well as blueprint reading, jobsite organization, and jobsite safety.

Requirements: You should have physical strength and stamina. If you have a strong desire to learn, and you are not afraid of hard work, this could be the program for you. Contact your guidance department to set-up a visit.

Dual Enrollment PC NOW Courses you can complete while in this program:

BCT234-Masonry Principles – 5 credits

Rev. 7/19

__WELDING__	Course No. _____

Grade 12	1 Year, 6 Credits

Start your career with a spark!

A Professional Welder's career options are nearly endless. Careers range from structural welding and pipe fitting to manufacturing and fabrication. Best of all, the demand for welders worldwide continues to grow. Nine months in the Welding Program will benefit you for the rest of your life.

Outcomes: By enrolling in the Welding Program you can learn the skills needed to succeed in this challenging field. If you are interested in furthering your education, you can earn up to 16 Penn College Now credits and advanced placement credits while attending SUN Tech. You may also choose to participate in Co-op and earn pay while being trained.

Description: The SUN Tech Welding Program provides you with the hands-on training in all positions and theoretical backgrounds required for an entry-level position in the field of welding. You also have the opportunity to take a certification test (D1.1 or D1.5) at the end of the school year.

Welding processes you will learn:

- Shielded Metal Arc Welding
- Gas Metal Arc Welding
- Gas Tungsten Arc Welding
- Flux Core Arc Welding
- Submerged Arc Welding
- Oxyfuel Cutting/Welding/Brazing
- CNC/Manual Plasma cutting
- Blueprint Reading
- Nondestructive Testing Methods/Inspection
- Fabrication skills

Requirements: You must have a desire to learn. You will learn through actively participating in all of the following: individual and team projects, professional development activities, written and practical evaluations, total quality curriculum, and related in and out of class assignments.

Dual Enrollment PC NOW Courses you can complete while in this program:

- **WEL114**   Shielded Metal Arc I
        2 credits
- **WEL116**   Shielded Metal Arc II
        2 credits

- **WEL120**   Gas Metal Arc I
        2 credits
- **WEL124**   Gas Metal Arc II
        2 credits
- **WEL123**   Gas Tungsten Arc I
        2 credits
- **WEL129**   Gas Tungsten Arc II
        2 credits
- **WEL132**   Flux Cored I
        2 credits
- **WEL 136**   Flux Cored II
        2 credits

Rev 8/18

WOOD DESIGN & TECHNOLOGY

Course No. ___

Grade: 11, 12   1 year, 6 Credits

Are You Interested in Learning A Hands-on Skill That Will Make You MONEY And Also SAVE You MONEY For The Rest of Your Life? If the answer is yes, then consider a career in Wood Design and get your FREE training at SUN Tech!!! Visit the Program and Check It Out!!!!

Outcomes: You can:

- Learn skills that you will have forever and will enable you to MAKE MONEY!
- Create different and challenging projects each day
- Express your creativity
- Participate in community service projects off campus
- Work by yourself and as a team member
- Go to college…..possibly for FREE
- Enter the workforce upon graduation

Description: As a Wood Design & Technology (WDT) student, you can be trained to be a quality machine operator, production worker, finisher, or technician. You will learn to have a

strong emphasis on quality and professionalism. Wood products manufacturing remains one of the top career fields locally and throughout the State. WDT is a State Approved Program of Study. When you complete all of the required state tasks, you can earn college credits to numerous colleges throughout the State.

Requirements: You should possess creativity and a willingness to learn and experience new things. Good hand-eye coordination, attention to detail, basic math and measurement skills are important skills to have when entering this program.

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