



# Saunders Trades and Technical High School

## Technical, Occupational and Vocational Programs

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GRADES 9-12

183 Palmer Road, Yonkers, NY 10701 • (914) 376-8150

Technical Studies (Academic Admission Requirements) • Occupational Studies • Vocational Studies

Since 1909, Saunders Trades & Technical High School has been committed to combine vocational and academic instruction that provided students with skills for employment and academic preparation for college. Students ballot to major in one of ten technical, vocational or occupational programs while participating in academic classes, taking Regents exams, as well as college preparatory courses. The concentrated academic instruction prepares our students for post-secondary learning experiences. Academic instruction supports knowledge acquisition in their vocational, occupational or technical pathways and enables them to actively participate in and contribute to society. It also offers active Work-Based Learning (WBL) experiences, preparing them for College, Career, and Civic Readiness (CCCR).

### Magnet Program Overview:

Saunders Trades & Technical High School offers 21st-century career and technical education (CTE) programming that prepares students for an entry-level job, college or both. Saunders High School offers ten CTE Pathways, all of which are endorsed by the New York State Education Department

**TECHNICAL PROGRAMS:** Architecture, Biology & Chemical Technology, Electronical & Computer Circuitry

**OCCUPATIONAL PROGRAMS:** Culinary Arts, Graphics Design, Cosmetology & Barbering, Fashion Design

**VOCATIONAL PROGRAMS:** Automotive Technology, Heating & Air Conditioning, Construction Technology

- **Magnet Program Selection:** Incoming freshmen will be placed in specialized programs they select on the School Choice application. Once a student is accepted to a Saunders program, he/she is committing to the 4-year sequence. There are no program changes.
- **Required CFM Course:** All students must complete and pass the New York State required course, Career and Financial Management (CFM).
- **Schedule:** The school day is arranged around a nine-period schedule with vocational, occupational and technical programs in a three period block (10th, 11th & 12th grades)
- **Magnet Required Supplies:** Each magnet program requires the purchase of industry grade tools, supplies, and clothing. Students are not permitted to work in any shop or lab without required safety equipment or attire.
- **Technical Diploma Designation:** Any student in occupational or vocational courses can earn a Technical Diploma by completing the required four years of math and science as well as two years of Spanish.
- **CTE Designation:** All students can earn a Career and Technical Education (CTE) designation on their diploma by successful completion of required industry approved exams. All students are required to take an industry assessment.
- **Exit Projects:** All 12th grade magnets end in a mandatory senior exit project in order to graduate from Saunders Trades & Technical High School. This includes research, hands-on component, practical, and/or verbal presentations. Any student that does NOT COMPLETE their assigned magnet program, Senior exit project, and/or NYS approved Industry exam will NOT graduate from Saunders Trades and Technical High School and will not cross the stage at our graduation. Students will be transferred to another YPS high school for graduation purposes and receive their diploma from his/her new high school.

- **Advanced Placement Courses:** Available to all students meeting academic requirements and with teacher recommendation.

### Technical Programs:

**ARCHITECTURE TECHNOLOGY:** offers courses in residential and commercial design, building materials, construction documents, design graphics, and computer assisted design and drafting (Auto-CAD). This comprehensive program provides students with the discipline and critical thinking skills necessary to transfer to a broad range of colleges & universities and the training and technical skills to gain employment with many firms in this area.

Students in the Architecture magnet are also automatically enrolled in the Yonkers P-TECH program. Yonkers P-TECH at Saunders is a four to six year program (grades 9-14) focused on engaging students in hands-on, project-based learning to be successful in career fields such as architecture, engineering construction, surveying, and landscape design. Starting in the 10th grade, students begin earning college credit through dual enrollment courses. Students who successfully complete the six-year program earn a high school diploma and an associate's degree in Civil Technology at no cost from Westchester Community College.

#### P-TECH PROGRAM - CIVIL TECHNOLOGY:

Saunders Trades and Technical High School will offer a 6-year course of study through Architecture that culminates in an industry recognized Associate Degree (AAS) in Civil Technology from Westchester Community College. Students can graduate in grade 14, or in the sixth year of the program, or earlier. Students will be engaged in rigorous college courses and participate in work-based experiences with Saunders industry partners through mentoring, workshops, job shadowing programs and internships. Students will receive support services and career preparation programs.

It is mandatory for all students selected into the P-Tech program to attend any summer courses and extended day programs, which will prepare the students for career and college readiness. The curriculum is aligned with the New York State standards, and addresses college pre- and co-requisites as well as workplace readiness skills. A specific scope and sequence of academic courses are mandatory and cannot be substituted.

*Magnet Exit Project: Architecture Open House*

**BIOLOGY & CHEMICAL TECHNOLOGY:** Students in the Biology and Chemical Technology magnet will learn the techniques necessary to work in a college or industrial science lab. Students will understand the scientific approach to observation and inquiry. Students will also be well prepared to continue their education in

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laboratory sciences such as biology, environmental science, and chemistry. Students will be given the opportunity to explore various careers in science through shadowing and school to work programs.

Student experiences are not limited to in-class activities. The course includes involvement with Community partners such as Groundwork Hudson Valley, The Center for the Urban River at Beczak, The Science Barge, and Trout in the classroom. Students can also take the Advanced Placement (AP) exam in Environmental Science their senior year as well as earn credit from SUNY Westchester for their senior year.

*Magnet Exit Project: Tech Prep Day*

**ELECTRONIC AND COMPUTER CIRCUITRY:** this program allows students the chance to explore the latest technology in personal computing, computer networking, computer programming, cybersecurity, AI, Internet of Things (IoT) and robotics. Students use soldering irons, hand tools, meters and oscilloscopes to troubleshoot and build computers, robots, amplifiers, speakers, wireless devices, power supplies and more. All students also have an opportunity to earn CISCO certification by the end of their senior year.

*Magnet Exit Project: Tech Prep Day*

## Occupational Programs:

**CULINARY ARTS:** Culinary Arts is a hands-on food preparation program that provides students with broad exposure to the art and science of cooking. Students will develop their culinary skills learning the ProStart curriculum in food production, dining etiquette, customer service, food safety and sanitation. All students also have an opportunity to earn ProStart and ServSafe certifications.

*Magnet Exit Project: Annual Cake Walk*

**COSMETOLOGY & BARBERING:** this program is comprised of classes and labs that follow the New York State approved curriculum required for licensing. Students must complete 1,000 hours of instruction in classes. Upon completion of their thousand-hour mandate, students are eligible to sit for the New York State Boards in Cosmetology. Students must pass two components in order to gain licensure: the written exam, which consists of technical questions associated with the magnet; and the practical exam, which determines the student's proficiency in a variety of hands-on work.

*Magnet Exit Project: Annual Hair and Makeup Show*

**FASHION DESIGN:** this program is devoted to the teachings on how garments are made for various apparel segments in the fashion industry. Students explore the fundamentals of garment construction such as professional draping, patternmaking, and professional sewing techniques. Students are prepared with the necessary tools to develop professional fashion design portfolios utilizing various fashion illustration and concept design methods. Students will be exposed to the overall workings of a professional design studio in the areas of apparel and textile design. Students will gain the ability to execute a design idea from sketch to finished garment.

*Magnet Exit Project: Annual Fashion Show*

**GRAPHIC DESIGN:** Students are exposed to digital design, traditional art methods, and professional workplace practices. The program offers instruction to prepare students for careers that focus on visual storytelling and using word and image to develop creative concepts. Students learn about emerging technologies and gain experience working with a Xerox Color Press printer, Canon scanners, and Apple computers. They are trained in industry standard software, including Adobe Illustrator, Photoshop, and InDesign, and are taught not only technical skills, but also how to think creatively.

*Magnet Exit Project: Annual Portfolio Review*

## Vocational Programs:

**AUTOMOTIVE TECHNOLOGY:** this program is designed to provide students with basic mechanical knowledge and skills. As a part of the program, students gain knowledge and skills through a combination of theoretical study and hands-on lab work. Students will review and receive training on brake systems, engine performance diagnosis, suspension and steering, electronic control systems, and on-board computerized engine control systems diagnosis on automobiles and light trucks.

*Magnet Exit Project: Automotive Hands-on Assessment*

**CONSTRUCTION TECHNOLOGY:** this program teaches students the essential skills needed to begin a career in the building and construction trades. Students will gain real-world knowledge and hands-on experience in the fundamental components of carpentry, drywall, painting, framing, roofing, floor installation, door and window installation, blueprint reading, drafting, siding, electrical wiring, plumbing, trim installation, proper tool use, and OSHA safety training.

*Magnet Exit Project: Annual Construction Technology Showcase*

## HEATING, VENTILATION, AND AIR CONDITIONING (HVAC):

introduces students to a major subdiscipline of mechanical engineering - the principles and fundamentals of heating, ventilation, air conditioning, and refrigeration systems. Instruction focuses on the fabrication, system installation, use of diagnostic equipment and the maintenance and troubleshooting of these various systems. Students learn how to work with electrical testing equipment; plastic, steel and copper pipe and tubing; sheet metal; hand tools; and specialized tools of the trade. Students also have an opportunity to earn OSHA 10 and EPA certification.

## Partnerships:

Saunders High School works closely with the following agencies, institutions, and/or colleges:

- National Association of Oil Heating Service Managers
- National Automotive Training Education Foundation
- NASA - Robotics Alliance Project
- Yonkers Partners in Education (YPIE)
- Domino Brands
- Sarah Lawrence College Center for the Urban River at Beczak
- Con Edison
- Fuller & D'Angelo, P.C. Architects and Planners
- Transit Construction Corporation

## Colleges and Universities:

- Westchester Community College
- Manhattan College
- New York Institute of Technology
- Monroe College
- Lincoln Tech
- College of Westchester
- SUNY Delhi
- SUNY Farmingdale
- SUNY Morrisville
- SUNY Oneonta
- Alfred State University
- NYADI: The College of Automotive & Diesel Technology

