

WHAT'S  
^ YOUR

2023  
2024

# Career & Technical EDUCATION



# Superintendent Message



**Serita D. Beamon**  
Superintendent

Dear Parents and Guardians,

As the Superintendent of Seminole County Public Schools (SCPS), I'm extremely excited to continue the momentum and success of our "A"-rated Premier National School District. SCPS has continued to maintain a high level of excellence for many years, including recognition as the #1 ranked STEM (Science, Technology, Engineering and Math) district in the State of Florida. In fact, we're also recognized as one of the top districts in the state for Physics, Calculus, Computer Science, and student attainment of digital tool certificates, industry certifications, and post-secondary credit through Advanced Placement, International Baccalaureate, and dual enrollment.

I know that maintaining our district's superior ratings and reputation is the result of great instruction, involved parents, engaged students, and a meaningful 21st century curriculum. The School Board and I are committed to providing our students with a world-class education.

For the 2023-24 school year, we will build upon past successes by expanding opportunities for students to accelerate their learning while also ensuring that all students have the knowledge and skills needed to attain college and career readiness by high school graduation. At Hagerty High School and Crooms Academy of Information Technology, we will be adding the Artificial Intelligence programs and at

Seminole High School, the addition of the Health Services Management pathway.

Furthermore, we are pleased that two of our Magnet Schools, Idyllwilde Elementary and Wicklow Elementary, offer the International Baccalaureate (IB) Primary Years Programme. IB provides a high-quality and challenging education while nurturing and developing young students as caring, active participants in a lifelong journey of learning. As IB World Schools, Idyllwilde and Wicklow will offer extraordinary learning opportunities to students.

It's rewarding to live in a community, and work in a county, that values education and understands that investing in our children today will reap great benefits for all of us in the future. Our high expectations for student success are only achieved through the essential contributions of our amazing teachers, dedicated parents, talented administrators, caring staff, wonderful PTA members, and enthusiastic volunteers. Please visit our award-winning district website at [www.SCPS.us](http://www.SCPS.us) to learn more about SCPS and the many ways in which you can support the education of your student and the lives of children throughout Seminole County.

**Serita D. Beamon**  
Superintendent



# ePathways is customized learning that results in our students being prepared for 21<sup>st</sup> Century globally competitive work

Seminole County Public Schools developed educational pathways (ePathways) as a symbol of its commitment that high school graduates will leave our district with meaningful diplomas and a clear pathway to high-demand, high-wage employment. SCPS students have multiple opportunities to explore their specific interests and talents while gaining a broad understanding of available career paths, ensuring they are prepared for a successful life after graduation.



**Shawn R. Gard-Harold**  
Assistant Superintendent - ePathways

It is my distinct pleasure to serve as the Assistant Superintendent of Educational Pathways (ePathways) in Seminole County Public Schools. As a long-time educator, my commitment is to ensuring every student in Seminole County sees a representation of him/her/themselves successfully learning & leading in their chosen field.

In recent history, our community began defining the term essential worker. Healthcare workers, first responders, water treatment operators, transportation maintenance technicians, construction tradespeople, energy managers, and even educators all emerged as just some of the critical professions in times of crisis. As a forward-thinking district committed to ensuring Seminole County maintains a viable workforce in critical areas, Seminole County Public Schools prepares students to serve in any/all of these essential functions post-graduation through our Career & Technical Education (CTE programs).

For many Seminole County Public Schools students, CTE provides access to authentic learning experiences in modern facilities taught by industry certified professionals using industry-standard equipment. These experiences allow students to prepare for post-graduation success in high demand careers as they pursue immediate employment, trade school, technical college, college/university, and/or the military. With the potential to graduate with multiple industry certifications and/or college credit, Seminole County Public Schools CTE graduates are poised for success, regardless of their post-graduation plans.

The primary purpose of this catalog is to inform families of the career and technical education options available to students in our county. However, we also hope our business community will see the multitude of opportunities to engage, interact, and support our exceptional programs as we seek to build meaningful and lasting partnerships that provide our students with authentic experiences in their field(s) of study.

Thank you for your commitment to the students of Seminole County. We look forward to being a part of your journey... your ePathway.

# Future Ready Graduates

A core belief of Seminole County Public Schools is that all students will be prepared for life after graduation. As a result, SCPS developed Skills for Future Ready Graduates, a model that focuses on the skills necessary for students to be successful. A committee of Seminole County stakeholders including students, parents, teachers, administrators, school board members, and business professionals identified these 12 skills as critical for all students to master in order to be prepared for their future. The ePathways department provides training and resources to teachers, ensuring these skills are embedded in all learning experiences. With customized opportunities available for all students, they are empowered to discover their passion and explore career options that fit their interests and talents while developing these skills.





# Career & Technical Education

Seminole County Public Schools is committed to providing students with access to education and training that will ensure they are prepared for college and careers. Career and Technical Education (CTE) coursework provides access to industry certifications and tangible skills essential to workforce development. Students are better prepared and more competitive for both college and employment after graduation.

Each of the district's CTE programs emphasizes the development of students who are both college and career ready by allowing students to apply learning from content area classes such as English Language Arts and Mathematics to real world problems. These courses serve to develop interpersonal skills such as collaboration and communication through industry-focused projects and activities. Students develop employability skills by gaining experience with industry-standard equipment and technology. CTE teachers also emphasize entrepreneurial skills in all programs. Students may have the opportunity to take industry certifications in many of the district's CTE programs.



## Florida Gold Seal Awards *Vocational Scholars and CAPE Scholars*

Career and Technical Education (CTE) students may be eligible to receive the Florida Gold Seal Vocational Scholars Award (GSV) or the Florida Gold Seal CAPE Scholars Award (GSC) to help fund their post-secondary education goals. These awards are part of the Florida Bright Futures Scholarship program. Scholarships are based on high school academic achievement, community service hours, paid work hours or a combination of both and achievement tests taken prior to enrolling in a post-secondary institution. Students and parents interested in this scholarship can contact their school counselor for more information.



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

# SCPS CTE Programs

ARTS, A/V & COMMUNICATIONS	Crooms AOIT	Hagerty HS	Lake Brantley HS	Lake Howell HS	Lake Mary HS	Lyman HS	Oviedo HS	Seminole HS	Winter Springs HS	Seminole Virtual School
Creative Design & Entertainment			✓							
Digital Design	✓	✓	✓	✓	✓	✓	✓	✓		
Digital Photography Technology			✓		✓				✓	
Digital Audio Production			✓							
Interior Design Services			✓				✓			
Television Production Technology		✓	✓	✓	✓	✓	✓	✓	✓	
BUSINESS										
Academy of Finance (multiple programs)			✓							
Business and Entrepreneurship				✓						
Marketing (multiple programs)						✓		✓		
Problem Solving Incubator (PSI High) (multiple programs)								✓		
CONSTRUCTION & TRANSPORTATION										
Academy of Engineering						✓				
Automotive Collision Technology								✓		
Automotive Maintenance and Light Repair						✓	✓	✓		
Aviation Academy (multiple programs)								✓		
Construction (multiple programs)			✓		✓	✓				
Technical Design					✓					
HEALTH & SCIENCE										
Academy of Health Careers (multiple programs)								✓		
Bioscience Technology							✓			
Environmental Water and Reclamation Technology			✓							
Forensic Science and Legal Studies					✓					
Renewable Energy									✓	
SERVICE										
Barbering				✓						
Cosmetology			✓							
Culinary Arts		✓		✓		✓	✓	✓	✓	
Early Childhood Education		✓	✓	✓	✓	✓	✓			
Hospitality and Tourism Management										✓
Personal Trainer					✓					
Public Service Academy: Heroes of Tomorrow (multiple programs)									✓	



For programs with this logo, students can request a Program of Emphasis transfer.



For programs with this logo, they are a designated NAF career academy.



Programs with this logo are available for enrollment to all high school SCPS students.

ARTS, A/V & COMMUNICATIONS	Crooms AOIT	Hagerty HS	Lake Brantley HS	Lake Howell HS	Lake Mary HS	Lyman HS	Oviedo HS	Seminole HS	Winter Springs HS	Seminole Virtual School
TECHNOLOGY										
Advanced IT	✓									
Advanced Manufacturing Technology					✓					
Applied Cybersecurity	✓			✓						
Applied Robotics					✓	✓				
Artificial Intelligence	✓	✓								
Computer Science Principles	✓	✓								
Digital Media Technology	✓									
Java Programming and Development	✓				✓		✓			✓
Information Technology (multiple programs)		✓	✓	✓	✓	✓	✓	✓	✓	✓
Modeling and Simulation	✓	✓								
Technology Support Services	✓									
Web Development	✓			✓	✓		✓	✓		



# Table of Contents



**9-12** ARTS, A/V & COMMUNICATIONS

**13-16** BUSINESS

**17-20** CONSTRUCTION & TRANSPORTATION

**21-24** HEALTH & SCIENCE

**25-28** SERVICE

**29-32** TECHNOLOGY

**34** AFTER SCHOOL LEARNING

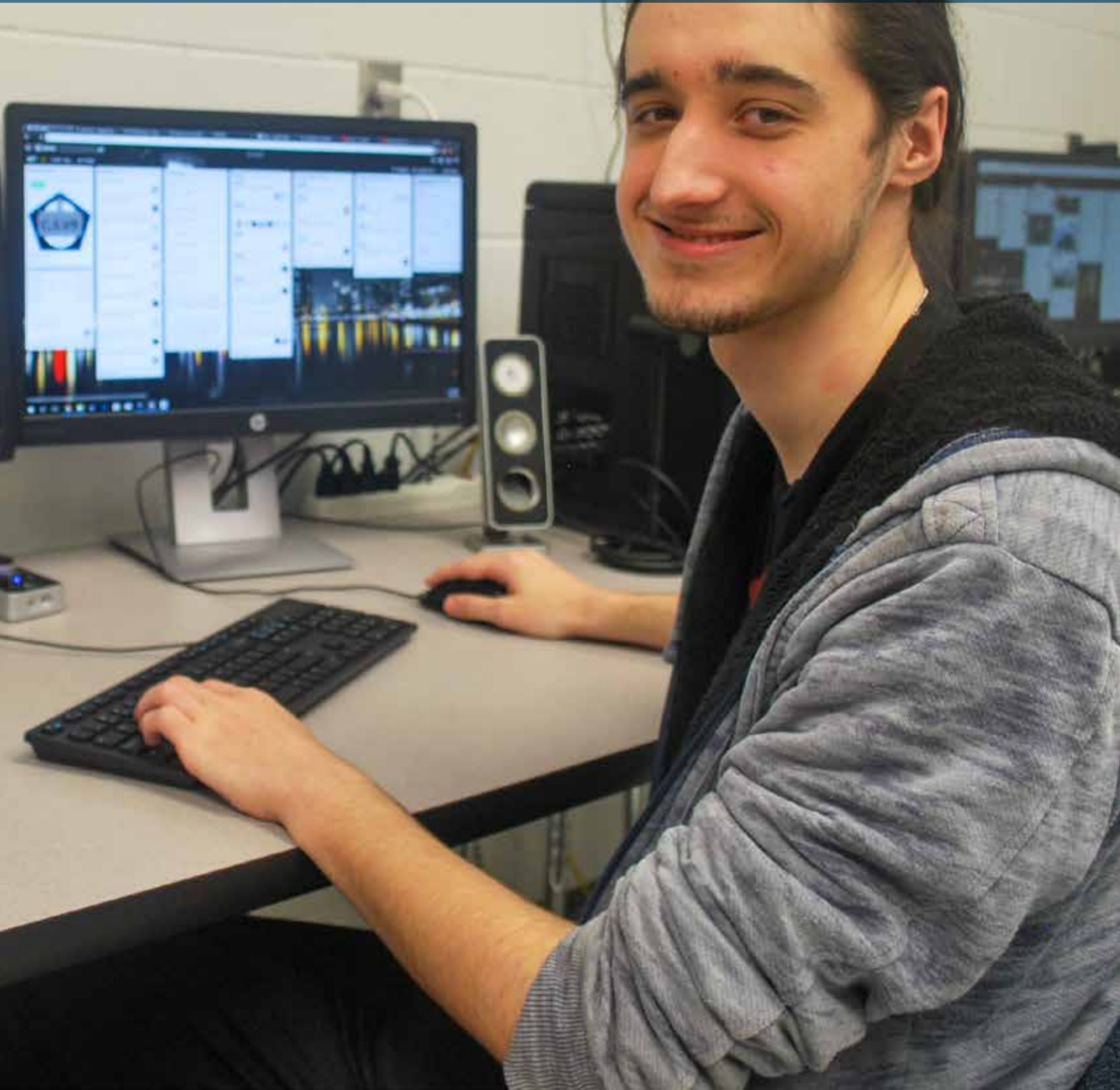
**35-36** CTE STUDENT ORGANIZATIONS

**37-38** COLLEGE & CAREER READINESS



VR Lab  
nce Done  
Lab

# ARTS, A/V & COMMUNICATIONS



# Creative Design & Entertainment

## CAREER OPPORTUNITIES

Digital Animator  
\$46,000 to \$79,000

Audio-Visual Technician  
\$30,000 to \$90,000

Photographer  
\$24,000 to \$77,000

Director of Photography  
\$35,000 to \$120,000

### SCPS ePATHWAYS PROGRAM OF EMPHASIS 2023-2024

Central Florida is a hub for art and design entertainment, providing many job opportunities for those with a creative passion. In the Creative Design & Entertainment POE at Lake Brantley High School, students have the opportunity to develop their artistic and digital skill set while preparing for a future career.

#### 3D ANIMATION TECHNOLOGY:

This program offers students the opportunity to specialize in skills such as the use of animation and authoring software, video editing, audio production, and. Students learn how games and movies are made and participate in creating their own picture sequences to bring a performance to life through character animation.

#### DIGITAL AUDIO PRODUCTION:

Students in this program will learn the skills and knowledge necessary to be successful in the broadcast and entertainment industries. Digital Audio students will learn about audio production software such as Pro Tools as well as the following: Audio Engineering, Music Recording, Audio Equalization, Music Production, Video Sound Design, Music Mixing, Audio Compression and Acoustics. Students will have access to industry-standard audio broadcast equipment to support the production of materials and programs while collaborating with local business partners.

#### INTERIOR DESIGN SERVICES:

This program allows students to gain an understanding of the elements and principles of design and develop skills in architectural drafting. Class projects include decorating sample rooms and designing floor plans utilizing Chief Architect software and AutoCad. Students have the opportunity to earn credit for two college courses at Seminole State College.

#### DIGITAL PHOTOGRAPHY TECHNOLOGY:

Students learn how to use a Digital SLR camera and Adobe software (such as Photoshop) and gain real-world working knowledge while compiling a portfolio that can be used in their future careers. Students will have the opportunity to grow in the following: communication skills, leadership skills, human relations and employability skills, safe and efficient work practices, and the use of digital camera techniques, commercial and industrial applications with emphasis on composition and color dynamics, printing, workflow, software and use, care, and maintenance of photographic equipment.

Additionally, students are exposed to professionals in the industry as well as various colleges to allow for exploration of future pathways.



## 3D Animation Technology

Students with a passion for cartoons, animated movies, video games, or movie special effects should consider the 3D Animation program. In Animation, you get the opportunity to explore both 2D hand-drawn animation and 3D polygon-based animation. Animation is the process of giving the illusion of movement to drawings, models, or inanimate objects. Animated movies and television shows are highly popular forms of entertainment, and students who participate in this program will create picture sequences to bring the whole performance to life with character animation. Students will specialize in skills such as video editing, audio production, and the use of animation and authoring software.





## Digital Design

### CAREER OPPORTUNITIES

**Graphic Designer**  
\$30,000 to \$86,000

**Illustrator**  
\$20,000 to \$100,000

**Advertising Account Executive**  
\$40,000 to \$120,000



## Digital Photography Technology

### CAREER OPPORTUNITIES

**Photographer**  
\$24,000 to \$77,000

**Photojournalist**  
\$20,000 to \$75,000

**Director of Photography**  
\$35,000 to \$120,000

The Digital Photography program prepares students with the skills needed for a career in arts and communication. Students learn how to use a Digital SLR camera and Adobe software (such as Adobe Photoshop); they will gain real-world working knowledge while compiling a portfolio that can be used in their careers. Program projects include using unmanned aerial vehicles (drones) to take photographs for various industries, conducting live sporting event shoots, editing photos based upon the needs of potential clients and using large scale printers to create marketing materials for events and businesses. Students are exposed to professionals in industry and various colleges to help them make informed decisions about their career path.





# Interior Design Services

In Seminole County's Interior Design courses, students have the opportunity to put their creativity to use doing hands-on projects on campus and in the community while learning the fundamental skills of the profession. Students plan, design, and furnish interiors of residential and commercial buildings. They learn to formulate designs that are not only attractive but also functional with respect to clients' needs and budget.



## CAREER OPPORTUNITIES

**Interior Designer**  
\$30,000 to \$94,000

**Interior Decorator**  
\$25,000 to \$70,000

**Industrial Designer**  
\$44,000 to \$128,000



# Television Production Technology

In this program, students learn how the magic of movies and TV are created. Students have the opportunity to work with Adobe software and will develop a portfolio including a dynamic demo reel to show potential employers in this growing field.

Learning the fundamentals of shot composition, lighting, sound recording, non-linear editing, and motion graphics from experienced instructors will enable students to craft content. These courses will also lay a foundation to help students become savvy consumers of digital media throughout their lifetimes.



## CAREER OPPORTUNITIES

**Film Editor**  
\$32,000 to \$170,000

**Broadcast Technician**  
\$24,000 to \$90,000

**Radio / Television Program Director**  
\$20,000 to \$75,000



# BUSINESS





# Academy of Finance

Finance can be the key to opening doors in businesses across all industries. Skills from this field serve as the foundation for a career as a certified public accountant, employment in finance or corporate management, or even private business.

The Lake Brantley High School Academy of Finance Program of Emphasis connects students with the world of financial services and accounting by offering a curriculum that covers banking and credit, financial planning, global finance, securities, insurance, accounting, and economics. This academy is a member of the National Academy Foundation, which includes over sixty major corporate sponsors.

Students benefit from InVEST, a grassroots program founded in 1970, that pairs representatives from the insurance industry with the school to provide insurance instruction, exposure to an insurance environment, and career opportunities for students.

Students enrolled in the Academy of Finance may apply to work as a teller in the Addition Financial Brantley Branch, a fully functional credit union. Training is provided to students by Addition Financial, which prepares them to fully staff and run the branch on the high school campus.

## Available programs include:

- Accounting Applications
- Finance

## CAREER OPPORTUNITIES

**Accountant**  
\$48,000 to \$129,000

**Bookkeeper**  
\$29,000 to \$62,000

**Personal Financial Planner**  
\$47,000 to \$208,000

**Account Manager**  
\$35,000 to \$130,000





# Business and Entrepreneurship

## CAREER OPPORTUNITIES

**Entrepreneur**  
\$10,000 to \$70,000r

**Office Manager**  
\$32,000 to \$100,000r

**Business Systems Analyst**  
\$60,000 to \$158,000



Entrepreneurs are people who are prepared to invest their own time and effort to turn a good idea into a marketable product or service. They are persistent people who see risks as opportunities, and have the ability to use innovation and imagination to be successful.

Lake Howell High School is home to the district's Program of Emphasis in Business and Entrepreneurship. Students who participate in the program are introduced to the concept of entrepreneurship while also developing the fundamental knowledge and skills necessary to start and operate a business.

Students choose the program pathway that best meets their needs and interests:

### Path 1: Business

Students graduate with a high school diploma and can also earn an Associate in Arts degree from Seminole State College. In order to qualify for dual enrollment courses, students need to earn a college-ready score on the PERT test and a minimum 3.0 GPA.

### Path 2: Entrepreneurship

Students earn a high school diploma and industry certifications in CTE courses. Students do earn dual enrollment credit in year 4. There is more flexibility for scheduling other electives while participating in the Entrepreneurship CAPE Academy.

#### Both programs provide opportunities for:

- Idea generation and start-up strategies
- Application of marketing and branding a business
- Entrepreneurial behavior and ethics
- Structure of organizations



# Marketing

Professionals in the marketing industry are the brains behind ads and campaigns, and they are responsible for bringing products and services into the public spotlight. Students interested in helping businesses make the most of their products and services might want to consider a future in marketing.

Students who pursue courses in marketing will get a head start on their futures in business while preparing themselves to take on the creative work of the industry. Each program offers a three credit program of study with a capstone course in Business Ownership. Program projects include creating and marketing a school-based enterprise.

### Available programs include:

- Fashion Marketing
- Marketing, Management and Entrepreneurial Principles
- Sport, Recreational and Entertainment Marketing

### CAREER OPPORTUNITIES

**Marketing Specialist**  
\$37,000 to \$128,000

**Graphic Designer**  
\$30,000 to \$86,000

**Social Media Content Creator**  
\$30,000 to \$80,000

# The Problem-Solving Incubator High School (PSI High)

Nationally recognized by the XQ Institute as an XQ Super School, PSI High is a fully immersive, future-ready school-within-a-school located at Seminole High School. Through the lens of design thinking, project-based learning, and a learning environment that fuses classes and project blocks, PSI High students build knowledge and skills by working on authentic, engaging, and complex projects. Students learn best when they are active participants in their learning, collaborating with their peers and teachers to do work that matters.

Students are enrolled in the Business Management and Analysis program to learn skills that include Entrepreneurship, Future and Career Ready practices, project management, problem solving, and financial management. Additionally, they have a choice of one of the following programs to complement their learning experience.

- Computer Science Principles
- Digital Design

### CAREER OPPORTUNITIES

**Entrepreneur**  
\$10,000 to \$70,000

**Project Manager**  
\$50,000 to \$150,000

**Marketing Specialist**  
\$37,000 to \$128,000







# CONSTRUCTION & TRANSPORTATION

---



# Academy of Engineering

Lyman High School Academy of Engineering is a magnet program that prepares students to be innovative and productive leaders in science, technology, engineering, and mathematics (STEM) and to make meaningful contributions to our world. Lyman uses Project Lead the Way (PLTW) to provide a rigorous, relevant STEM education through an engaging, hands-on curriculum. In the Engineering Pathways CTE program, students are empowered to solve problems, think critically, and use creative reasoning. In addition to classroom activities, students have the opportunity to participate in SECME Club, Robotics First Tech Challenge, and CyberPatriots.



## CAREER OPPORTUNITIES

**Electrical Engineer**  
\$62,000 to \$162,000

**Mechanical Engineer**  
\$60,000 to \$136,000

**Engineering Technician**  
\$35,000 to \$103,000

# Automotive Collision Technology

The Automotive Collision Technology program prepares students, using industry-standard equipment, to master the trade and enter the workforce upon graduation. The program is NATEF/ASE certified in structural repair, non-structural repair, and refinishing.

Students first learn about the construction, history, and material composition of today's automobiles. Opportunities to use air tools, body shop specialty tools, and spray equipment are included in the program. Students then apply this knowledge by repairing panels, fenders, doors, and hoods. Year one finishes with four months of welding experience.

Level two students learn basic electrical and mechanical systems including suspension, steering systems, brake systems, transmissions, and motors. In levels three through five, students master dent repair, priming, and painting. Students also develop their entrepreneurship skills by learning how to write estimates to maximize their earning potential beyond high school.

## CAREER OPPORTUNITIES

**Autobody Repairer**  
\$29,000 to \$76,000

**Automotive Service Technician**  
\$29,000 to \$75,000

**Auto Detailer**  
\$19,000 to \$37,000



# Automotive Maintenance and Light Repair

## CAREER OPPORTUNITIES

**Automotive Service Technician**  
\$29,000 to \$75,000

**Race Car Technician**  
\$25,000 to \$150,000

**Electronics Repairer**  
\$29,000 to \$95,000



The United States is the world's second largest producer of motor vehicles. There are a variety of career opportunities for students who want to be technicians, service managers, or parts and service consultants.

The motor vehicle is an intricate series of systems, subsystems, and components assembled into a final product. There are many exciting options for learning a wide range of skills in the automotive industry. All Automotive Maintenance and Light Repair high school programs are NATEF/ASE certified, which means students are receiving industry-leading instruction. There are opportunities for mastery in many areas including technical and computer systems, electronics, the use of sophisticated diagnostic equipment, customer service, management, and entrepreneurship.

## CAREER OPPORTUNITIES

**Aircraft Mechanic**  
\$38,000 to \$98,000

**Avionics Technician**  
\$38,000 to \$100,000

**Quality Controller**  
\$25,000 to \$100,000



## Aviation Academy

The Aviation Program of Emphasis at Seminole High School is a state-of-the-art program designed to prepare students for employment or advanced training in the aviation industry. This program gives students relevant experience with tools, flight training materials, simulators, and actual aircraft: a Cessna 150 and Robinson R22HP Helicopter.

There are two programs in the academy: the *Aviation Maintenance General* program begins with the FAA Private Pilot Ground School course and certification. All pilots require this information to prepare for final aircraft inspection before takeoff. Students learn core flight safety, airport markings, weather, and reading charts. Students then learn the inner workings of aircraft through maintenance coursework.

The *Avionics Systems* program introduces students to the high-tech electronics systems aboard an aircraft, including flight control, navigation, and communications. Students learn about wiring, electronics, and the correct use of power tools. Hands-on, project-based labs provide opportunities for students to troubleshoot circuits, develop soldering skills, and learn aerodynamic fundamentals for manned and unmanned aircraft.



# Construction

As this industry continues to grow and drive the Florida economy, the demand for qualified professionals in the field of residential and commercial structures is increasing. This program focuses instruction on broad, transferable skills that can be used in trades like carpentry, HVAC, and electrical. Students can take the knowledge learned in these courses to the next level by pursuing industry certifications, workplace learning experiences, or apprenticeship.

The SCPS Construction programs are part of the Academy of Construction Technologies (ACT), a registered pre-apprenticeship program. The ACT program offers students the opportunity to begin a career in high school, integrating academics and paid work experience.

## Available programs include:

- Air-Conditioning, Refrigeration and Heating Technology
- Building Trades and Construction Design Technology
- Electricity
- Welding

## CAREER OPPORTUNITIES

### Electrician

\$37,000 to \$99,000

### Welder

\$31,000 to \$63,000

### Construction Manager

\$60,000 to \$163,000



# Technical Design

Architecture is the work of designing, creating, and problem solving. Architects use science, technology, engineering and mathematics (STEM) to assess problems and create solutions. This can include the construction of bridges or buildings, the development of materials, or the invention of technologies. Engineers work with building materials, electronics and even the environment, depending on their field of work.

Each of these fields relies heavily on the collaboration of individuals with a broad set of skills and a variety of educational backgrounds -- from engineers and architects to Drafting/CAD technicians and surveyors.

Students in this program learn the basics of AutoDesk AutoCAD to complete projects and choose to work in either 3D Modeling, Architecture, or a combination of both. Students who choose to dive deeper into 3D Modeling have the opportunity to print projects on a Mojo or Dimension 1200 3D printer. Those focused on Architecture work on an in-depth project such as developing a set of plans for a future dream house.

## CAREER OPPORTUNITIES

### Architect

\$48,000 to \$138,000

### Landscape Architect

\$40,000 to \$115,000

### Drafter

\$37,000 to \$95,000







# HEALTH & SCIENCE

# Academy of Health Careers

The Academy of Health Careers (AOHC) is a magnet program at Seminole High School offering students a broad curriculum to explore careers in the health industry. Students in the AOHC are exposed to content which provides the basic foundation to continue health career studies after high school.

Students who participate in the program are provided opportunities for hands-on learning in realistic, simulated scenarios. Students are empowered to explore various careers through job shadowing and clinical experiences in area hospitals, medical offices, emergency medical facilities, and veterinary health care sites.

## Available programs include:

- Allied Health Assisting
- Biomedical Science
- Electrocardiograph Technician
- Emergency Medical Responder
- Nursing Assistant (Acute and Long Term Care)



## CAREER OPPORTUNITIES

**Health Records Professional**  
\$29,000 to \$74,000

**Nurse**  
\$59,000 to \$120,000

**Paramedic**  
\$23,000 to \$74,000

**Respiratory Therapist**  
\$47,000 to \$95,000

**Physical Therapist**  
\$62,000 to \$127,000



# Bioscience Technology

Oviedo High School hosts the SCPS Program of Emphasis in Bioscience Technology. Bioscience is the interdisciplinary study of living organisms. When students understand the function of these organisms, products can be made or modified for a specific use to benefit society. Courses from the *Industrial Biotechnology* CTE program are designed to be predominantly laboratory based with a focus on utilizing bioscience equipment while working toward an industry certification as a lab technician.



## CAREER OPPORTUNITIES

**Biological Technician**  
\$31,000 to \$78,000

**Biotechnologist**  
\$30,000 to \$120,000

**Biologist**  
\$42,000 to \$136,000



# Environmental Water and Reclamation Technology

## CAREER OPPORTUNITIES

**Wastewater Treatment Plant Operator**  
\$30,000 to \$77,000

**Water Resources Engineer**  
\$60,000 to \$100,000

**Biological Technician**  
\$31,000 to \$78,000



Labor market demand has led to an industry-driven collaboration between Seminole County Public Schools and the City of Altamonte Springs to provide Lake Brantley High School students with an opportunity to learn about careers in Water Technology at the award-winning Altamonte Springs Regional Water Reclamation Facility.

Project H<sub>2</sub>O Tx (Project Water Treatment) will provide students with formal instruction and practical experience in water resource management, wastewater treatment process control, and in the operation of wastewater treatment facilities. In addition to learning about a variety of treatment processes, the course content includes plant safety, maintenance, laboratory procedures, and reporting, which are all applicable in many environmental science and water resource careers. Students will be able to apply for careers in the wastewater treatment field as a Plant Operator Trainee or related position upon graduation from high school.

# Forensic Science and Legal Studies

## CAREER OPPORTUNITIES

**Forensic Scientist**  
\$35,000 to \$100,000

**Crime Scene Investigator**  
\$30,000 to \$80,000

**Lawyer**  
\$61,000 to \$208,000



Students who participate in the Forensic Science and Legal Studies Program of Emphasis at Lake Mary High School choose between two program tracks. Students in the Forensic Science track gain experience in crime scene investigation, evidence collection and processing through hands-on projects. Forensic scientists use groundbreaking scientific technology, analytical thought processes and careful examination of detail to give reliable and testable evidence in criminal investigations. This program will allow students to gain skills and experiences that will help them prepare for careers as a crime scene investigator, medical examiner, or forensic technician.

Students in the Legal Studies track learn the foundations of our legal system while developing an understanding of how those principles continue to shape and guide our society today. Students will learn about some of the most famous and controversial cases in history and will have the opportunity to develop their own conclusions about the outcomes of those cases. This program allows students to gain skills and experiences that will help them prepare for careers as attorneys, paralegals, or law enforcement officers.

\*This program is not included in a Florida Career and Technical Education (CTE) framework. All courses earn high school credit.



# Renewable Energy

The Renewable Energy Program of Emphasis at Winter Springs High School exposes students to emerging technologies related to energy. The program provides an overview of renewable and nonrenewable energy resources reflecting how energy impacts the environment and the economy from regional, state, national, and global perspectives.

Students apply concepts from science, engineering, and design to solve complex problems related to renewable energy. The goal of this program is to prepare students to be successful in this emerging STEM career field.

\*This program is not included in a Florida Career and Technical Education (CTE) framework. All courses earn high school credit.

\*Seminole State offers an Alternative Energy Certificate that is 18 credit hours. Several of the courses that are required for the certificate can be taken as dual enrollment classes through this program. Once students graduate and complete the certificate at SSC, it can be transferred to a four-year university. In order to qualify for dual enrollment courses, students need to earn a college-ready score on the PERT test and a minimum 3.0 GPA.

## CAREER OPPORTUNITIES

**Solar Energy Technician**  
\$27,000 to \$70,000

**Wind Turbine Technician**  
\$46,000 to \$78,000

**Geothermal Technician**  
\$35,000 to \$90,000



# SERVICE





# Barbering and Cosmetology

The fashion and beauty industries are highly creative and artistic career fields. From experimenting with makeup to creating bold hairstyles with edge, these programs allow students to be innovative trendsetters.

Barbers and cosmetologists thrive on creativity but need technical skills to be successful. SCPS Barbering and Cosmetology programs can help turn artistic passion into a beautiful career with help from experienced instructors who believe in active learning. This program helps students build a broad foundation of knowledge and skills to prepare them for employment. The content includes communication, leadership, human relations, safe and efficient work practices, and Florida barbering and cosmetology laws and rules. Many of the hours earned in both programs are accepted at post-secondary cosmetology schools.



## CAREER OPPORTUNITIES

**Cosmetologist**  
\$20,000 to \$65,000

**Esthetician**  
\$23,000 to \$65,000

**Barber**  
\$22,000 to \$53,000



# Culinary Arts

Students who seek to become future leaders in the hospitality, tourism, and food service industries can enroll in the Culinary Arts program. Service is the largest employer in Florida with more than 1,000,000 staff in the field. Projections show a need for 1.2 million jobs by the year 2026, which is a 9 percent overall growth from 2016. This projection is due to population and income growth in Florida resulting in an increased demand for food at restaurants and grocery stores.

Culinary Arts courses prepare students for employment or advanced training in the food service industry. The ProStart curriculum, developed and supported by the National Restaurant Association, guides students through food handling skills, safety and sanitation, recipe creation and conversion, equipment and tools, nutrition, and much more. Students will learn about the myriad of career options available to those with culinary training while learning how a restaurant operates and connecting with industry professionals.

## CAREER OPPORTUNITIES

**Chef**  
\$30,000 to \$84,000

**Food Services Worker**  
\$18,000 to \$32,000

**Bartender**  
\$17,000 to \$47,000





## CAREER OPPORTUNITIES

**Early Childhood Educator**  
\$18,000 to \$58,000

**Elementary School Teacher**  
\$44,000 to \$99,000

**Teacher Assistant**  
\$21,000 to \$46,000



## Early Childhood Education

In their first year of the program, students will complete a 45-hour training, mandated by the Florida Department of Children and Families, to become eligible for employment in any Florida childcare facility. As students continue through the program, they have the opportunity to earn the DCF Staff Credential. Students who are in the Early Childhood program will put the theory they learned in level one to practice with children at preschools located on high school campuses throughout the district. Under the guidance of the master teacher, upper level students create lessons, design learning-through-play activities, manage rotations, and facilitate individual and group projects with preschool students.

Students can also earn a Child Development Associate (CDA) credential which opens additional doors to employment in educational organizations, including SCPS.



## Hospitality and Tourism Management

### CAREER OPPORTUNITIES

**Concierge**  
\$25,000 to \$58,000

**Hotel Manager**  
\$35,000 to \$103,000

**Restaurant Manager**  
\$36,000 to \$98,000

Hospitality is one of Florida's most dynamic and high-growth industries. Students who enroll in the Hospitality and Tourism program through Seminole County Virtual School (SCVS) will gain business, entrepreneurial, and marketing skills with the flexibility to fit any schedule.

In Central Florida, hospitality and tourism jobs are in high demand. Beginning salaries depend on the employee's skills, education, and job level at a hotel, restaurant, tourism office, recreation facility, amusement park, or attraction site. This industry is known for promoting from within and for its large number of young managers.

In this one-of-a-kind virtual Hospitality & Tourism (H&T) program, students have the flexibility to complete coursework at times that work well for them. Students also select H&T experiences offered by SCVS to bring their coursework to life. Student experiences may include tours at restaurants, convention centers, theme parks, sports complexes, farms, festivals, nature preserves, hotels, airports, or internships for students completing multiple courses.



# Public Service Academy

The Winter Springs High School Public Service Academy Program of Emphasis will develop students as future leaders of the community as they prepare for post-secondary education and career in public service. Through community partnerships and the development of real-world knowledge, skills, and experiences with a human service mindset, students will be prepared for any pathway they choose.

- **Pathway 1:** Criminal Justice Operations
- **Pathway 2:** Emergency Planning & Response
- **Pathway 3:** Principles of Teaching



## CAREER OPPORTUNITIES

**Dispatcher**  
\$29,000 to \$71,000

**Police Officer**  
\$40,000 to \$146,000

**Elementary School Teacher**  
\$44,000 to \$99,000



# Personal Trainer

The personal training industry is over \$40 billion worldwide. Students at Lake Mary High have a unique opportunity to explore many aspects of the industry including physical wellness, physical fitness training principles, kinesiology, human movement, injuries and precautions. Personal Trainer students apply theory to practice by assisting student athletes with training on campus.



## CAREER OPPORTUNITIES

**Personal Trainer**  
\$20,000 to \$75,000

**Athletic Trainer**  
\$37,000 to \$76,000

**Elementary School Teacher**  
\$30,000 to \$80,000





# TECHNOLOGY



# Advanced Manufacturing Technology

Seminole County Public Schools has collaborated with regional employers and community leaders to create the Advanced Manufacturing & Innovation Program of Emphasis at Lake Mary High School. The manufacturing program empowers students to identify opportunities, design solutions, build prototypes, produce multiple copies, and improve the product through quality processes, all while learning key principles of advanced manufacturing, mechatronics, and entrepreneurship.

Through the support of community and business partners and the curricular guidance of the Manufacturing Skill Standards Council (MSSC) and National Institute for Metalworking Skills (NIMS), SCPS offers students opportunities to learn relevant skills and earn industry certifications. Students also gain real-world work experience to help bridge the manufacturing talent gap and accelerate into the future of high-tech manufacturing.

## CAREER OPPORTUNITIES

**Manufacturing Machine Operator**  
\$20,000 to \$62,000

**Manufacturing Manager**  
\$64,000 to \$170,000

**Quality Controller**  
\$25,000 to \$100,000



# Applied Robotics

This award-winning robotics program educates students in the fields of science, technology, engineering and mathematics (STEM). By pairing students with industry mentors in these fields, they explore all aspects of robotics from building to programming. Students' skills are put to the test during regional competitions where they build game/playing robots that weigh up to 125 pounds.

Applied Robotics in SCPS gives students the opportunity to combine the excitement of sport with the rigors of science and technology. Students leave this program with highly coveted technical skills that open doors to a variety of careers in the robotics industry.

## CAREER OPPORTUNITIES

**Robotics Engineer**  
\$60,000 to \$130,000

**Electrical Engineering Technician**  
\$40,000 to \$99,000

**Mechanical Engineer**  
\$60,000 to \$136,000



# Crooms Academy of Information Technology

## CAREER OPPORTUNITIES

**Web Administrator**  
\$35,000 to \$100,000

**Computer Network Specialist**  
\$49,000 to \$130,000

**IT Support Specialist**  
\$34,000 to \$102,000



Information Technology (IT) employees design online and mobile applications, create or administer websites, manage information security, and design and build essential computer network architecture to meet organizations' needs.

Crooms Academy of Information Technology is the SCPS magnet for IT. Students are able to study and obtain certifications in several IT areas including Network Support and Security, Computer Programming, Game, Simulation, Animation, Design and Programming, and Multimedia Design.

In addition to relevant and rigorous classroom instruction, Crooms AOIT offers students the opportunity for industry-relevant field trips, job shadowing opportunities, and internships. IT companies also support the Academy by providing classroom speakers and mentors.

### Available programs include:

- AA Degree in Information Technology
- Applied Cybersecurity
- Digital Design
- Digital Media Technology
- Game, Simulation and Animation (Visual Design)
- Game, Simulation and Animation (Programming)
- Network Support Services
- Technology Support Services
- Web Development

## CAREER OPPORTUNITIES

**Information Security Engineer**  
\$60,000 to \$150,000

**Ethical Hacker**  
\$80,000 to \$165,000

**Information Security Analyst**  
\$61,000 to \$165,000



## Cybersecurity

Compromise, breach, intrusion! When a data network or computer system is exposed or exploited, the result can be catastrophic to both business and industry.

According to Juniper Research, "Cybercrimes have accounted for trillions of dollars in losses" across the globe. Cyber criminals target financial institutions, businesses of all sizes, government agencies and military organizations to inflict significant damage. Professionals who are trained to keep data safe from cyber criminals are in high demand.

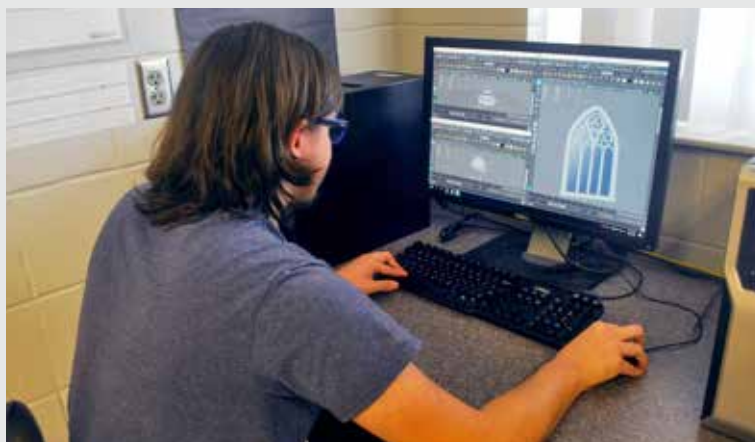
There are two opportunities to study cybersecurity: the Program of Emphasis at Lake Howell High School or at Crooms Academy of Information Technology. Both programs prepare students for a rewarding career protecting valuable data from security threats and hackers. By completing this program, students will be prepared to plan, coordinate, and implement security measures for information systems. They will have the skill set necessary to regulate access to computer data files and to prevent unauthorized modification, destruction, or disclosure of information.

# Information Technology - SCPS High Schools

SCPS high schools offer various programs and certifications in Information Technology.

## Available programs include:

- Computer Science Principles
- Java Development and Programming
- Technology Support Services
- Web Development



## Modeling and Simulation

The Academy of Advanced Learning Technologies at Hagerty High School provides students with a unique opportunity to develop expertise in both Modeling and Simulation and the emerging field of Artificial Intelligence (AI).

AI Coursework includes studies in the societal impacts of AI, Machine Learning, Data Analysis and AI system deployment. Students will develop specialized programming skills that involve advanced mathematical calculations and statistics.

Teacher professional development and curriculum have been provided by the University of Florida, considered the standard for AI universities. The curriculum prepares students for AI certification in the Microsoft Azure platform.

## Artificial Intelligence

The Artificial Intelligence program offers a challenging sequence of courses that prepares students for careers in multiple industries. This program provides exploration opportunities for students in various topics including data-based decision making, the components of AI systems, the problems and tools of AI, and the impact of AI on society.

The program is offered at Crooms Academy of Information Technology and the Academy of Advanced Learning Technologies at Hagerty High School.

**Video Game Developer**  
\$35,000 to \$130,000

**Computer Programmer**  
\$47,000 to \$155,000

**AI Specialist**  
\$65,000 to \$150,000







# After School Learning

Seminole County Public Schools knows that learning is a 24/7/365 activity. Through the ePathways flexible scheduling initiative, students can select high-quality programs outside of the traditional school day on other high school campuses. After school courses can be taken as an 8th period course.

After school courses allow students to pursue interests and experiences that may lead to a future career while earning high school credit. Students can take courses at any high school offering an after school experience regardless of their zoned school and are responsible for their own transportation. Courses are typically available Tuesdays and Thursdays from 3:30-5:30 p.m. Students interested in participating in an after school course should contact their school counselor to enroll.



Course Name	School
Applied Robotics	Lake Mary High School
Automotive Maintenance and Light Repair	Oviedo High School
Aviation	Seminole High School
Cosmetology	Lake Howell High School

Course Name	School
Electrical	Lyman High School
Heating, Ventilation, and Air Conditioning (HVAC)	Lyman High School
Technical Design	Lake Mary High School

*\*Please note that courses are subject to cancellation due to low enrollment or change in instructor availability.*



# Career & Technical Student Organizations

## Business Professionals of America (BPA)

The mission of Business Professionals of America is to contribute to the preparation of a world-class workforce through the advancement of leadership, citizenship, academic, and technological skills. BPA is a dynamic organization of young people preparing for success as leaders in business, government, and communities.

## Distributed Education Clubs of America (DECA)

DECA, a national association for marketing education, provides students with educational and leadership development activities.

DECA chapters attract students who are interested in preparing for entrepreneurial, marketing or management careers. DECA is not extracurricular; it is an integral part of the student's academic experience. Working hand-in-hand with the education and business communities, DECA's goal is for its student members to develop a "career success kit" to carry into their professional and personal lives after graduation.

## Family, Career and Community Leaders of America (FCCLA)

Family, Career and Community Leaders of America is a career and technical student organization for young men and women in Family and Consumer Sciences programs. Everyone is part of a family, and FCCLA is the only national Career and Technical Student Organization with the family as its central focus.

Since 1945, FCCLA members have been making a difference in their families, careers, and communities by addressing important personal, work, and societal issues through Family and Consumer Sciences education.



## SkillsUSA - VICA

SkillsUSA is a national organization for students in trade, industrial, technical, and health programs. SkillsUSA provides quality education experiences for students in leadership, teamwork, citizenship, and character development. It builds and reinforces self-confidence, work attitudes, and communication skills. It emphasizes total quality at work, high ethical standards, superior work skills, life-long education, and pride in the dignity of work. SkillsUSA also promotes understanding of the free-enterprise system and involvement in community service activities.

## Health Occupations Students of America (HOSA)

Health Occupations Students of America (HOSA) is a national student organization with a two-fold mission to promote career opportunities in the health care industry and to enhance the delivery of quality health care to all people. The purpose HOSA is to develop leadership and technical skill competencies through a program of motivation, awareness, and recognition.

## Technology Student Association

The Technology Student Association (TSA) is a national student organization created to develop skills in science, technology, engineering, and mathematics (STEM) as well as business education. TSA aims to develop leadership, academic, and business management skills in the workplace among students and leaders within the community.

# Workplace Learning

## ***Connecting High School Students to Local Industry***

Seminole County Public Schools is a leading economic driver in our community. Therefore, it is our duty to ensure our graduates are ready for college, careers, and citizenship. We believe students need opportunities to deepen their classroom learning experiences with authentic workplace opportunities such as job shadowing, classroom speakers, career exploration, internships, career fairs, and teacher externships.

ePathways has partnered with several civic groups and employers to offer workplace learning opportunities to high school students. These partnerships are critical in providing students with real world experience through internships by applying their skills, passions, and interests. These opportunities assist students by strengthening their employability skills and illuminating future career options.

## ***Benefits of Student Internships***

- Decreases new employee turnover and increases retention
- Cultivates talent of potential long-term employees
- Increases employability and future workforce success through the development of skills important to employers
- Creates an environment of collaboration and cooperation among SCPS, employers, the community, and students





# Career Pathways

Career Pathways is an articulation agreement between Seminole County Public Schools and local state colleges. These agreements provide opportunities to students in some of the Career and Technical programs at SCPS to earn college credit in addition to high school credit

This program is available in nearly a dozen high school programs and students can earn up to nine (9) college credits by articulating the high school course with the college course content. Credits may be earned by examination, skills assessment, and other modalities as established in the agreement. This represents more than \$900 in potential savings and up to 9 college credits.

To receive the college credit, students must enroll in one or more courses at the local state college after graduation. With the Career Pathways credits, students can get a head start on an A.S. degree or certification program.















### FOR MORE INFORMATION

400 East Lake Mary Blvd.  
Sanford, FL 32773  
[ePathways@scps.k12.fl.us](mailto:ePathways@scps.k12.fl.us)  
[www.scps.k12.fl.us/ePathways](http://www.scps.k12.fl.us/ePathways)

#### **Reasonable Accommodation(s):**

The School Board prohibits discrimination against any employee or applicant based upon his/her disability. As such, the Board will not engage in employment practices or adopt policies that discriminate on the basis of disability, or otherwise discriminate against qualified individuals with disabilities in regard to job application procedures, the hiring, advancement or discharge of employees, employee compensation, job training, or other terms, conditions and privileges of employment.

#### **Seminole County Public Schools Educational Equity - Notice of Nondiscrimination**

Any form of discrimination or harassment can be devastating to an individual's academic progress, social relationship and/or personal sense of self-worth. As such, the School Board will not discriminate nor tolerate harassment in its educational programs or activities on the basis of race, color, national origin, sex (including sexual orientation, gender status, or gender identity), disability (including HIV, AIDS, or sickle cell trait), pregnancy, marital status, age (except as authorized by law), religion, military status, ancestry, or genetic information, which are classes protected by State and/or Federal law (collectively, "protected classes").

The Board also does not discriminate on the basis of protected classes in its employment policies and practices as they relate to students. Equal educational opportunities shall be available to all students, without regard to the protected classes, age (unless age is a factor necessary to the normal operation or the achievement of any legitimate objective of the program/activity), place of residence within the boundaries of the District, or social or economic background, to learn through the curriculum offered in this District. Educational programs shall be designed to meet the varying needs of all students.