

**Career and Technical Education is a focused, powerful educational experience that prepares students for both industry and higher education. To be successful in CTE, students must commit to the pursuit of an academic diploma and RIDE-mandated industry credentials. Students will work harder than many of their peers, but be positioned for high-wage, high growth careers.**

## **Career & Technical Education in the Providence Public Schools**



# Application Timeline

**November 17 - School Choice Fair night @ PCTA  
4:00pm-8:00pm**

**October - November**

*On site assemblies and presentations at all Providence Middle Schools*

**January 12th, 2023**

*Family Information Session - PCTA 6:00pm*

**January 9th, 2023- Application Open**

**January 31st, 2023 Application Deadline**

## **How to get more information about CTE**

- **Attend the district-wide School Choice Fair November 17 at PCTA**
- **Attend the Family Information Night Jan. 12, at 6:00pm**
- **Visit [www.providencepublicschools/octe](http://www.providencepublicschools/octe)**

## **Application Requirements**

- **Complete online application (available at [www.providenceschools.org/octe](http://www.providenceschools.org/octe)) before January 31, 2023**
- **Rank top 3 CTE programs**
- **Complete two short essays**
- **Online recommendation from school counselor**

### **Application Component**

**SY 22-23**

**1-Student essays 20 points**

**2-Guidance counselor recommendation 30 points**

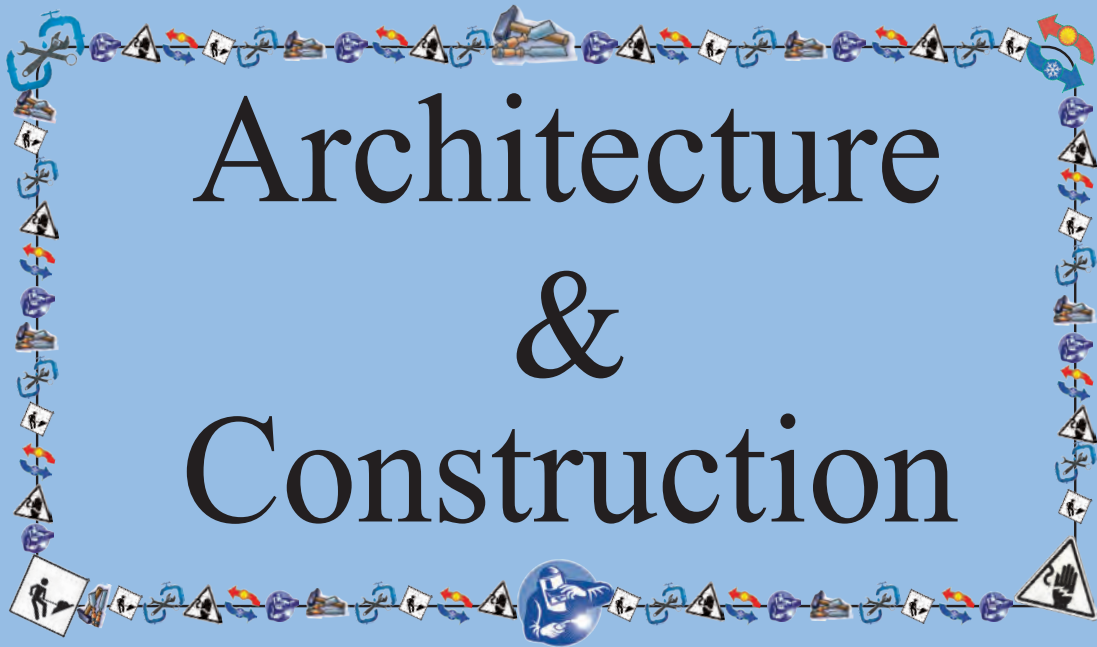
**3-Student interview 30 points**

**4-7th Grade Final Grades 10 points**

**5-7th Grade Attendance 10 points**

**Student applications are scored by the CTE team as well as program teachers and administrators. Points are awarded to each student as follows, with a maximum of 100 points.**

**\*It is important to note that the CTE Office will not share score information for individual parts of the application with students and families.\***



# Architecture & Construction

Program:	School:
Electrical	PCTA
HVAC/Plumbing	PCTA
Carpentry	PCTA
General Construction	PCTA

# ELECTRICAL TECHNOLOGY

PROVIDENCE CAREER AND TECHNICAL ACADEMY



## PROGRAM OVERVIEW

This program is designed to prepare diverse students for a career in Electrical Technology.

Students take courses and participate in field work outside of the classroom, such as the construction of the field house for Central High School, the House Build, and school projects. Students will have an opportunity to explore the content and the practice of Electrical Technology.



## DID YOU KNOW?

Electricians install, connect, test, and maintain electrical systems for a variety of purposes including climate control, security, and communications. Although most electricians specialize in construction or maintenance, a growing number do both.

Electricians work with blueprints to install electrical systems in factories, office buildings, homes, and other structures. Blueprints indicate the locations of circuits, outlets, load centers, panel boards, and other equipment.

## OUTCOMES

- HBI Certification
- CPR, First Aid & AED Certification
- MC3 Certification
- OSHA 10
- 80 Hours Work Based Learning Hours

## WHAT ARE MY OPPORTUNITIES AFTER GRADUATION?

Direct To Work



**IBEW 5 Year Program**  
**Building Futures**

Two Year Program



**New England Tech Associates**  
**CCRI National Grid**

**CCRI/RIBTA Electrician Apprenticeship**

Four Year Program



**Bachelors in Electrical Engineering**

# HVAC/Plumbing

PROVIDENCE CAREER AND TECHNICAL ACADEMY



## PROGRAM OVERVIEW

Students who complete the HVAC-R program gain skills in heating, cooling, ventilation, refrigeration, plumbing, and customer service. Students also learn essential technologies for a variety of environments - clean room environments, computer rooms, and commercial high-rise buildings. HVAC-R has a required six week summer program



## DID YOU KNOW?

Employment of heating, air conditioning, plumbing, and refrigeration mechanics and installers will grow 14% from 2014 to 2024. Candidates familiar with computers and electronics and those with good troubleshooting skills will have the best job opportunities. Employers seek qualified technicians to install, maintain, and repair complex systems.

## OUTCOMES

- Home Builders Institution (HBI) Certification
- VIEGA Certification
- EPA 608 & 609 Certifications
- 80 Work Based Learning hours
- OSHA 10
- First Aid

## WHAT ARE MY OPPORTUNITIES AFTER GRADUATION?

### Direct To Work



HVACR/ Plumbing Apprentice  
HVACR/Plumbing Supply House  
Pipefitter Apprentice  
Entry Level Construction Position

### Two Year Program



HVACR/ Plumbing Mechanic and installer  
HVACR/Plumbing Sales/ Design  
HVACR/Plumbing Commissioning Agent  
HVACR/Plumbing Marketing  
Pipefitter/Steamfitter  
Master HVAC-R Technician or Plumber

### Four Year Program



Oil Technician  
Mechanical Engineer

# CARPENTRY & HOME BUILDING

PROVIDENCE CAREER AND TECHNICAL ACADEMY



## PROGRAM DESCRIPTION

This program is designed to attract diverse students to the home construction profession. Students participate in fieldwork outside of the classroom, such as construction of the field house for Central High School and PCTA, model homes for RI Home Show and additional projects. Carpentry has a required six week summer program.



## DID YOU KNOW?

Students develop technical knowledge and practical experience essential to secure employment in the manufacturing industry. construction after graduation and / or transition to a Post-Secondary Institution to promote your education in the construction trades.

## OUTCOMES

- Home Builders Institute (HBI) Certification
- 80 Work Based Learning Hours
- Ramset Certification
- CPR, First Aid & AED Certification
- OSHA 10 Certification
- Shop Safety Certification

## WHAT ARE MY OPPORTUNITIES AFTER GRADUATION?

Direct to Work



**Carpenter Helper  
Construction Helper**

Two Year Program



**Union or Building  
Futures Apprentice**

Four year Program



**Bachelors in  
Construction Management**

# General Construction

PROVIDENCE CAREER AND TECHNICAL ACADEMY



## PROGRAM OVERVIEW

The NE Laborers Training Facilities in Hopkinton, MA and Pomfret, CT partnered with PCTA in designing and building indoor and outdoor labs to provide students the opportunity to practice construction techniques needed upon completion of the program. Students who complete the General Construction program at PCTA are eligible to use 1,000 hours towards completion of their apprenticeship. General Construction has a required six week summer program.



## DID YOU KNOW?

Every year PCTA students are accepted into the LiUNA apprenticeship program giving them the opportunity to work in a construction job within weeks after graduation. Entry-level wage for a Construction Craft Laborer is \$46,300./\$22.26 per hour.

## OUTCOMES

- OSHA 30 Certification
- Employability skill mastery certificate
- CPR/First Aid
- 80 Work Based Learning hours
- New England Laborers apprenticeship program

## WHAT ARE MY OPPORTUNITIES AFTER GRADUATION?

### Direct To Work



Apprenticeship



GenCon craft laborer: concrete, masonry, asphalt, scaffolding.

### Two Year Program



Labor force supervisor



Training instructor

### Four Year Program



Project manager



Site supervisor



General manager



# Arts, A/V Technology & Communication

Program	School
Graphic Communications	PCTA
Visual Arts	Hope
Music	Mt. Pleasant



# GRAPHICS

PROVIDENCE CAREER AND TECHNICAL ACADEMY



## PROGRAM OVERVIEW

The Graphics program is an activity-based program that teaches design principles, image editing and illustration techniques to produce design projects for web, print, and video delivery. This program delivers advanced coursework in the highly technical and demanding Graphic Design & A/V Communications field. In the Graphics program, students gain relevant work experience in an ever expanding field. There is an amazing opportunity for students to acquire academic, technical and workplace skills in the classroom and through internships.



## DID YOU KNOW?

The Graphics program at PCTA is a school-based enterprise. The program has added digital printing, embroidery, and vinyl cutting. These machines allow us to create custom, hats, hoodies, and T-shirts. In addition, the students use software to design brochures and flyers for local businesses and schools. Students also have access to a state of the art digital media studio where they can produce podcasts and learn video production. Upon completion of the program, students can earn course credits towards two degree programs: NEIT's Graphic, Web Design and Multi-Media program or Digital Media Production.

## OUTCOMES

- ADOBE Certification
- Print (ED)
- NEIT Course Credits

## WHAT ARE MY OPPORTUNITIES AFTER GRADUATION?

### Direct To Work



Web Designer  
Illustrator  
Package Designer  
Video Editor  
Camera Operator

### Two Year Program



Graphics Designer  
Entrepreneur  
Digital Media  
Specialist

### Four Year Program



Creative/Art Director  
Career and Technical  
Education Teacher

# Visual Arts

HOPE HIGH SCHOOL



The Visual Arts program at Hope High School provides students the opportunity to prepare for a career in the Arts by developing and cultivating a comprehensive portfolio of work. Students have the opportunity for certification in Adobe Illustrator, Adobe Photoshop, NOCTI and NEIT and can take Advanced Placement 2-D Design and Advanced Placement Drawing. The Visual Arts Program offers drawing, painting, and digital media arts. The Mac lab has full color printers, a green screen and the Adobe Suite to create professional level graphics. Students use watercolor, acrylic painting, oil pastels, colored pencils, oil pastel, charcoal, and copic markers.



## DID YOU KNOW?

Artists are a vital part of the American workforce- more than two million Americans describe their primary occupation as artists. Artistic vision and design skills are needed in areas such as architecture, fashion, media, film and theatre. Artists can work as muralists, graphic designers, animators, filmmakers, architects, set designers, fashion designers, product designers, and web designers.

## OUTCOMES

- Art & Design Portfolio
- NOCTI
- AP 2-D Design
- AP Drawing

## WHAT ARE MY OPPORTUNITIES AFTER GRADUATION?

### Direct To Work



**Fine Artist Designer  
Designer/Graphic Designer/  
Web Designer  
Art Gallery Docent  
Artist Assistant**

### Two Year Program



**Associates degree in Fine Arts  
Printmaking  
Graphic Design and Web  
Design**

### Four Year Program



**Bachelors in Fine Arts, Graphic  
Design, Architecture and Media  
Arts  
Art Educator  
Art Therapist**

# Music

MOUNT PLEASANT HIGH SCHOOL



## PROGRAM OVERVIEW

The Mount Pleasant High School Music CTE Pathway offers four programs of study for students: Concert Band, Chorus, Piano and Guitar with emphasis on music preparation for Conservatory style post-secondary auditions.

The Pathway is designed for students interested in having a music focus during their high school career. All students are welcome and do not need to have past instrumental or vocal experience. The Music CTE Pathway prepares students for optional post secondary studies in Music Performance, Music Education or Music History.



Tri-M<sup>®</sup> Music  
HONOR SOCIETY



## DID YOU KNOW?

Students have opportunities to work with and perform with industry professionals throughout the state during all 4 years of instruction. Students work toward preparing auditions for Rhode Island All State and Solo and Ensemble festivals. Those who meet high academic standards have the option to join the Modern Music Masters (Tri-M) Honor Society, a national honor society specifically for musicians. The program also offers a college preparatory Music Theory course during students' senior year.

## OUTCOMES

- Core Instrumental/Vocal performance and instruction
- Statewide group festival competition
- Statewide Solo and Ensemble competitions (junior and senior year)
- Elementary Music Theory
- Internships with area industry professionals

## WHAT ARE MY OPPORTUNITIES AFTER GRADUATION?

### Direct To Work



Private instrumental or  
vocal Instructor, Musician

### Two Year Program



Associates Degree in Music  
or Fine Arts

### Four Year Program

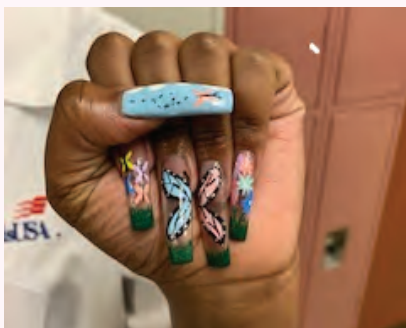


Bachelors of Music -  
Education  
Bachelors of Music -  
Performance  
Bachelors of Music -  
History/Ethnomusicology  
Bachelors of Music - Music  
Therapy



# Business & Cosmetology

PROVIDENCE CAREER AND TECHNICAL ACADEMY



## PROGRAM OVERVIEW

**The Business/Cosmetology Program combines the elements of art, science, and creativity with entrepreneurship and business management. Students learn in a full-service, clinical salon environment that provides real-world experiences. Students develop business knowledge as well as management and leadership skills. Students will become successful and financially educated salon and spa professionals.**



## DID YOU KNOW?

**In 1906, Madam C.J. Walker was the first woman of color to become an entrepreneur and a cosmetologist. She was a courageous entrepreneur with positive beliefs and confidence. Many women have overcome criticism and doubt, breaking barriers to prove themselves.**

**Consider the Business/Cosmetology Program to be the first entrepreneur in your family!**

## OUTCOMES

- ASK Business Certification
- QuickBooks Certification
- EverFi Financial Literacy Certificate
- RI Cosmetology License
- Keratin Complex Certification
- SP2 Certification
- Barbicide Certification

## WHAT ARE MY OPPORTUNITIES AFTER GRADUATION?

### Direct To Work:



**Salon Owner/Manager  
Hairstylist, Special effects artist  
Fashion Show Stylist**

### Two Year Program




**Associates' in Business Management  
Cosmetology Instructor**

### Four Year Program



**Bachelor's in Business  
Management,  
Accounting, or Finance**



# Education, Training, & Human Services

Program	School
Teacher Academy	Mt. Pleasant



# TEACHER ACADEMY

MOUNT PLEASANT HIGH SCHOOL



## PROGRAM OVERVIEW

The Teacher Academy Program includes both industry-recognized credentials and advanced coursework. Students earn their First Aid, Babysitting, and CPR certifications. They also earn OSHA 10 Healthcare and Interview Skills from Careersafe online. Students also earn a Teacher Assistant Training Certificate as approved by RIDE and take the Paraprofessional Assessment through Educational Testing Services and can qualify to be teacher assistant in RI and other states. The sequence of classes includes an Early Enrollment Program course through Rhode Island College: FNED 100 Schooling in a Democratic Society for 3 credits.



## DID YOU KNOW?

There is a growing need for teachers throughout the United States. Employment of high school teachers is projected to grow 4 percent from 2019 to 2029. Rising student enrollment should increase demand for high school teachers. The annual average wage for a RI teacher is \$75,950.

## OUTCOMES

- PARAPRO Assessment 461 or Higher
- RIDE Approved Teacher Assistant Training
- HighSchool Diploma
- First AID Certificate
- BabySitting Certificate
- Early Enrollment at Rhode Island College (3 Credits)

## WHAT ARE MY OPPORTUNITIES AFTER GRADUATION?

Direct To Work



Teacher Assistant

Two Year Program

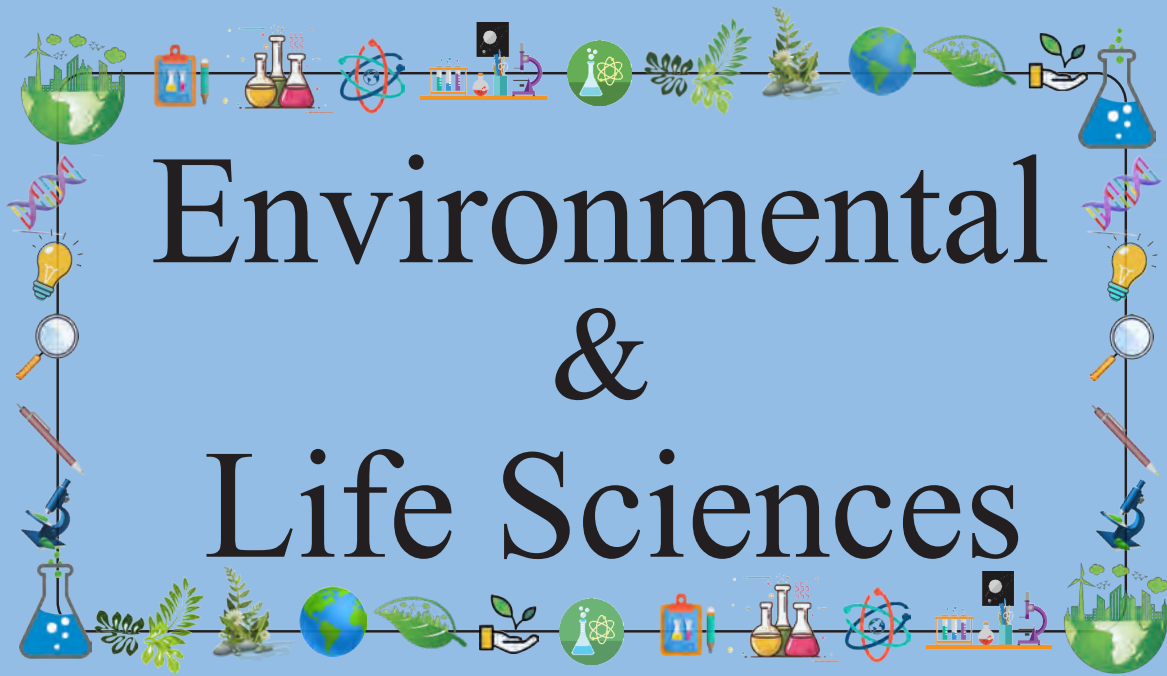


Associate's in Education  
Early childhood teacher,  
Teaching assistant

Four Year Program



Bachelor's in  
Education PK/K-12



# Environmental & Life Sciences

Program	School
Bio-Medical	W.B.Cooley @JSEC





# BIOTECHNOLOGY/MEDICAL

JUANITA SANCHEZ HIGH SCHOOL



## PROGRAM OVERVIEW

In the Biotechnology/Medical Program students prepare for many career opportunities such as Medical Tech, Biotechnology, Lab Techs, Biology, Phys./Occ. Therapy, and other Healthcare/Lab sciences. Students develop science knowledge through hands-on experiences. Students in this program will experiment, explore, and prepare for careers.



## DID YOU KNOW?

The Biomedical program will prepare students for careers in health-related and science fields. This is a highly interactive program where students conduct labs, see how people engage the scientific community, build their resume and become part of a great community.

## OUTCOMES

- Project Lead the Way (PLTW) coursework
- 80 hours of internship, service learning
- CPR & AED Certification
- OSHA 10 Certification

## WHAT ARE MY OPPORTUNITIES AFTER GRADUATION?

Direct To Work



Certificate programs in  
imagerology or phlebotomy

Two Year Program

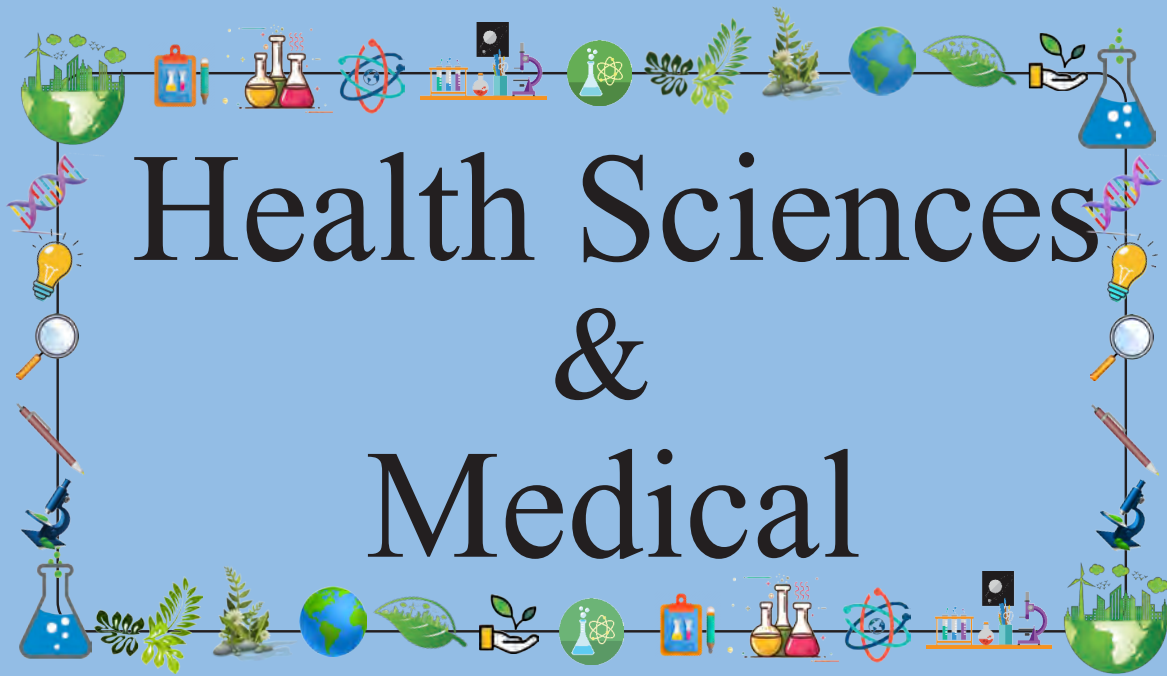


Med Tech or  
Physical/Respiratory therapy

Four Year Program

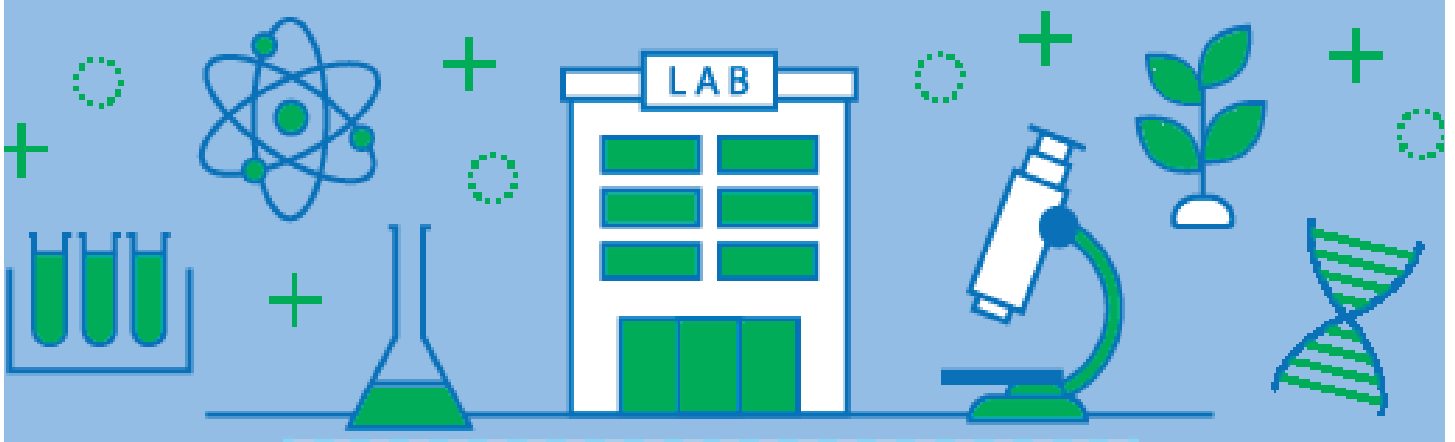


Biomedical Engineer,  
Data Scientist, Lab  
Scientist



# Health Sciences & Medical

Program	School
Healthcare	Alvarez



# HEALTH CAREERS

## ALVAREZ

### PROGRAM OVERVIEW



The three Healthcare programs at Dr. Jorge Alvarez High School prepare students for entry-level employment as Nursing Assistants (CNA), Emergency Medical Technicians (EMT) or Community Health Care Workers. Students will be provided with instruction through classroom theory, labs and clinical skills. Students will participate in supervised clinical rotations at local facilities providing hands-on care.



### DID YOU KNOW?

Registered Nurses in the state of Rhode Island earn an average annual salary of \$82,790 per year (or \$39.81 per hour) as of May 2020, according to the U.S. Bureau of Labor Statistics. 80% of Rhode Island RNs earn between \$59,460 and \$105,150.

### OUTCOMES

- CNA License
- EMT License
- Community Health Worker certification
- CPR, First Aid, AED
- 80 Hours Clinical Work

### WHAT ARE MY OPPORTUNITIES AFTER GRADUATION?

Direct To Work



Nursing Assistant (CNA)

Two Year Program



Licensed Practical Nurse (LPN)  
Physical Therapy Assistant

Four Year Program



Registered Nurse RN



# CULINARY ARTS

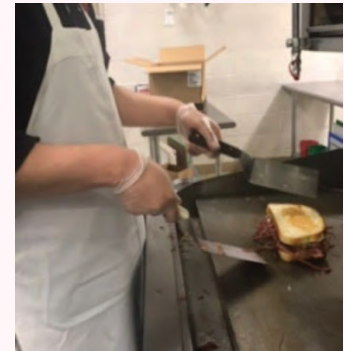
PROVIDENCE CAREER AND TECHNICAL ACADEMY



## PROGRAM OVERVIEW

Culinary students learn the necessary skills to be successful in the Food Service industry. Students learn content in theory classes and practice hands-on skills in the lab.

Students prepare menu items for PCTA's student-run Cafe. In this school-based enterprise, students create menus, receive food orders, prepare meals, greet guests, and take orders.



## DID YOU KNOW?

Most people will hold a position in the food service industry at some point in their lifetime. This industry has \$899 billion in projected sales for 2020 and \$1.6 million new jobs by 2030. Restaurants employ more multi-language speakers than any other industry.

## OUTCOMES

- ServSafe Workplace
- ServSafe Food Allergens/ Handler
- ServSafe Alcohol Service
- ProStart Level 1 & 2
- American Culinary Federation

## WHAT ARE MY OPPORTUNITIES AFTER GRADUATION?

### Direct To Work



Line cook  
Prep cook  
Host/Hostess  
Busser/ Server

### Two Year Program



Culinary Arts Associate Degree

### Four Year Program



Bachelor's in Culinary Arts  
Dietitian  
Nutritionist  
Restaurant Management  
Food and Beverage Manager

# PASTRY

PROVIDENCE CAREER AND TECHNICAL ACADEMY



## PROGRAM OVERVIEW

Students in the Pastry Arts program hands-on experience in a variety of methods to prepare creative pastries, breads, cake, etc. Students learn about food management, desserts, pastry principles, menu planning, catering operations and restaurant accounting. Students compete in local, state and national baking competitions along with the Prostart Culinary team.



## DID YOU KNOW?

Students in the Pastry Program at PCTA are part of a school-based enterprise known as the Cafe. Staff members along with the community at large eat here and order cakes, pastries for holidays, special occasions, birthday parties, and Providence Waterfire celebrations.

## OUTCOMES

- ProStart Level 1 & 2
- American Culinary Federation
- ServSafe Food Handler
- ServSafe Alcohol & Allergen
- ServSafe Manager

## WHAT ARE MY OPPORTUNITIES AFTER GRADUATION?

### Direct To Work



Baker  
Cake Designer  
Caterer

### Associate in Pastry Arts

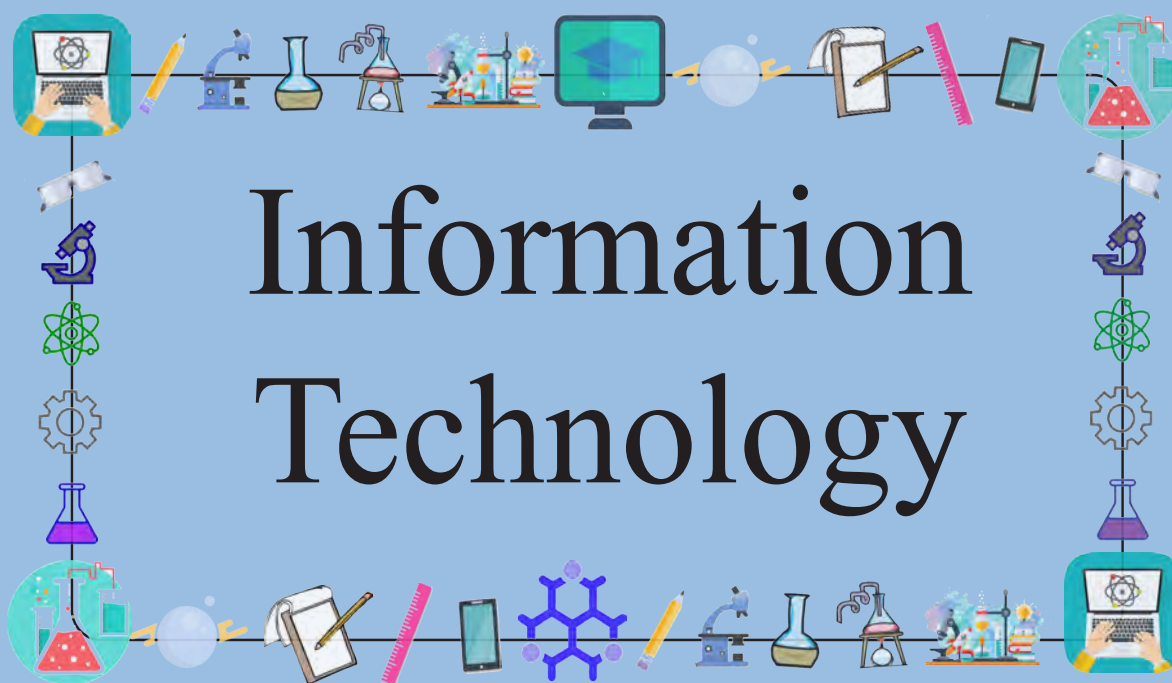


Food Service Manager  
Retail Bakery Owner  
Hotel Pastry Manager

### Bachelor in Pastry Arts



Food Nutritionist  
Food Science Tester  
Pastry Chef



# Information Technology

Program	School
Information Technology/Computer Science with Dual Enrollment P-TECH Program	E-Cubed
Computer Science/ CS4RI	W.B. Cooley @ JSEC
Computer Science/ CS4RI	Mt. Pleasant
Computer Science/ CS4RI	Central
Computer Science/ CS4RI	Alvarez

# INFORMATION TECHNOLOGY/ P-TECH

## E-CUBED

### PROGRAM OVERVIEW

In the Information Technology Program will have an opportunity to earn both their high school diploma, credits toward their associates degree and gain relevant work experience in the field of Informational Technology. Additionally, students who participate in extended learning and summer course work can graduate with their Associates degree the summer after high school.

The program branches into three pathways: Computer Science, Networking and Computer Support Specialist. Students will acquire the academic, technical and workplace skills that employers need. Students will develop skills in programming and technology support that will prepare them to move into high wage, high growth careers. Mentoring, workplace visits, job shadowing, and internships are integrated into the program.



COMMUNITY  
COLLEGE  
OF RHODE ISLAND

### DID YOU KNOW?

The average wage for a TECH industry worker is \$108,900 - more than 2x the national average.

PTECH provides an opportunity for students to complete high school, and earn a two year degree. PTECH graduates will be prepared for higher paying, successful careers.

For more information visit or [www.ptech.org](http://www.ptech.org)

### OUTCOMES

- IC3 Certificate
- Dual/Concurrent Enrollment (URI & CCRI)
- AP Computer Science Principles

### WHAT ARE MY OPPORTUNITIES AFTER GRADUATION?

#### Direct To Work



Computer Networking  
Software  
Cyber Security Analyst  
Computer Support Specialist  
DevOps Engineer  
Year Up

#### Two Year Program



AA Computer  
Programming (CCRI)  
AA Networking (CCRI)  
AA Cybersecurity (CCRI)

#### Four Year Program



BA Computer Science  
(URI & RIC)  
BS Computer Science  
(URI & JWU)



# Computer Science/CS4RI

CENTRAL, JSEC, & MT.PLEASANT HIGH SCHOOL, ALVAREZ



## PROGRAM OVERVIEW

The Computer Science Pathway programs at Central, JSEC, Mt. Pleasant, and PCTA are funded and supported by the statewide Computer Science for Rhode Island (CS4RI) grant. Students enjoy creative problem-solving, team collaboration, and influencing others with their ideas. Students develop skills to connect their career passions to high paying jobs in one of the largest and fastest-growing fields.



## DID YOU KNOW?

Computer Science is not all about coding - it includes various fields that require coding experience. This includes the global push towards smart buildings and “green” cities. There is a projected growth of 12 % from 2018-2028 in the employment of computer and information technology occupations. Starting salaries are \$45,000-\$50,000.

## OUTCOMES

- 12 Computer Science college credits
- Pathway endorsements
- 20 hours of hands-on experience in a structured lab setting

## WHAT ARE MY OPPORTUNITIES AFTER GRADUATION?

Direct To Work



Help Desk Technician

Two Year Program



College/University  
Associate in  
Computer Science/ IT

Four Year Program



College/University  
Bachelor in  
Computer Science/ IT



# Law, Public Safety, & Government

Program	School
Law & Public Safety + Firefighter	Central
JROTC	Hope



# Law, Public Safety & Security

CENTRAL HIGH SCHOOL



## PROGRAM OVERVIEW

The Law, Public Safety, & Security program prepares students for a range of careers in the legal, criminal justice, and public safety fields. It begins with an overview of the criminal justice system, including the police, courts, and corrections. The forensic science course teaches students to solve crimes and collect, preserve, and analyze physical evidence. In legal studies and criminal justice, students learn about the law in our contemporary society, the ethics and moral obligation of our citizenry, and the meaning of justice.



## DID YOU KNOW?

Students have the opportunity to earn an EMT license starting in the junior year!

Demand for public safety will lead to new openings for officers.

Average salary for a police officer is \$44,000.

Average wage for Correctional Officers/Bailiffs is \$43,000 in May 2016. EMT start at \$19.00 per hour

## OUTCOMES

- EMT certification- Emergency Medical Technician
- OSHA 10
- First Aid and CPR
- Roger Williams University- up to 9 credits

## WHAT ARE MY OPPORTUNITIES AFTER GRADUATION?

Direct To Work



EMT, Police Cadet Program

Two Year Program



Associate in Criminal Justice or Forensics Science

Four Year Program



Bachelor's in Criminal Justice or Forensics Science

# JROTC

HOPE HIGH SCHOOL



## PROGRAM OVERVIEW

Are you someone who likes a challenge? Are you someone who likes to learn beyond the traditional classroom? Do you want to be part of a team and create life-long friends? JROTC instruction is focused on leadership, time and financial management, nutrition, CPR, and many other topics. Designed to enhance team building and personal responsibility. Hope High School's Army JROTC program is an "Honor Unit with Distinction," the Department of Defense's highest rating.



## DID YOU KNOW?

Program instructors do not recruit for the military. The mission of JROTC is: "To motivate young people to be better citizens." Beyond the classroom, cadets have the opportunity to test their physical fitness through basic tests of strength and agility. The most successful cadets over time have achieved a proper balance of academics, fitness, and nutrition.

## OUTCOMES

- Cadet Portfolio
- Service Learning Projects
- Continuous Improvement capstone project
- CPR, First Aid & AED certification
- Financial Management

## WHAT ARE MY OPPORTUNITIES AFTER GRADUATION?

### Direct To Work



Enlistment in the U.S.  
Armed Forces

### Two Year Program

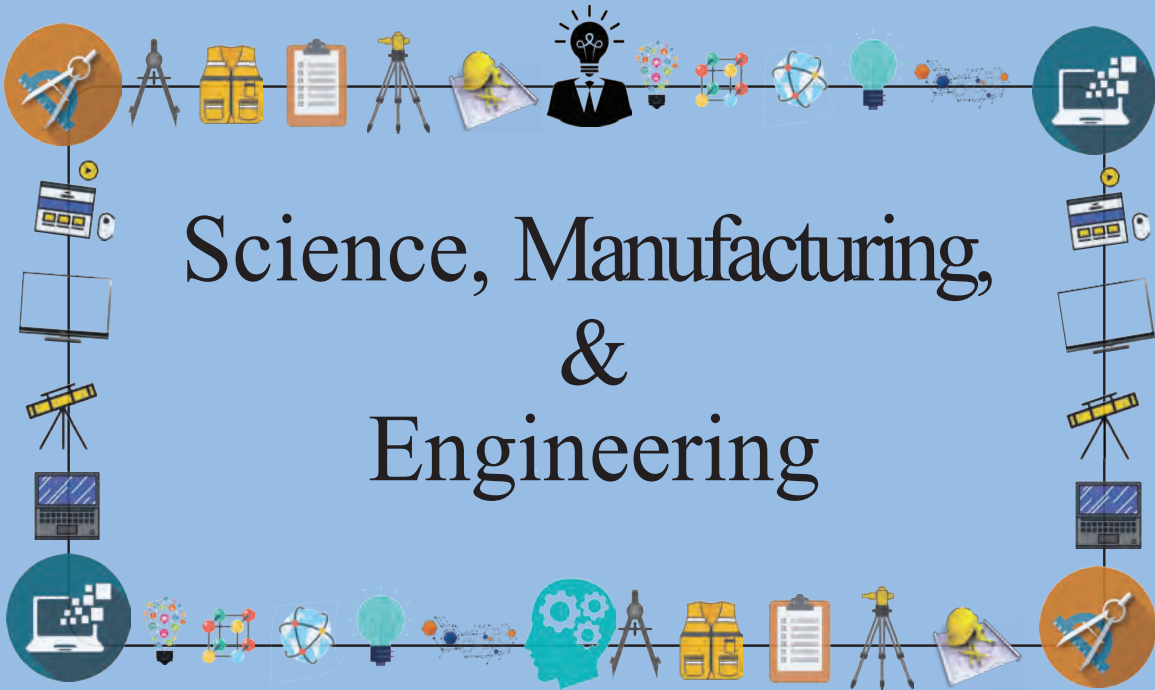


Scholarship at institution with  
ROTC program

### Four Year Program



US Military Service Academy  
(Nomination with distinction)



# Science, Manufacturing, & Engineering

Program	School
Pre-Engineering	PCTA
Pre-Engineering	Mt. Pleasant
Welding & Pipe Fitting	PCTA



# PRE-ENGINEERING

PROVIDENCE CAREER AND TECHNICAL ACADEMY



## PROGRAM OVERVIEW

Students in the Pre-Engineering program at PCTA take a rigorous three course Project Lead the Way (PLTW) sequence. Students have the opportunity to earn industry-recognized credentials, post-secondary credits and/or advanced standing in training programs or jobs. PLTW courses are Introduction to Engineering Design, Computer Integrated Manufacturing, and Engineering Design & Development.



## DID YOU KNOW?

Pre-Engineering students have won Skills USA gold medals in Mobile Robotics, Prepared Speech and Interactive Video Game Design. Students tour Engineering firms, local colleges and universities and meet industry professionals to learn about opportunities in Engineering and Manufacturing.

## OUTCOMES

- SolidWorks
- Project Lead the Way coursework
- OSHA 10

## WHAT ARE MY OPPORTUNITIES AFTER GRADUATION?

Associates in Engineering



**Electronic Technician**

Bachelor's in Engineering



**Logistic and supply chain management  
or  
Manufacturing and Production**

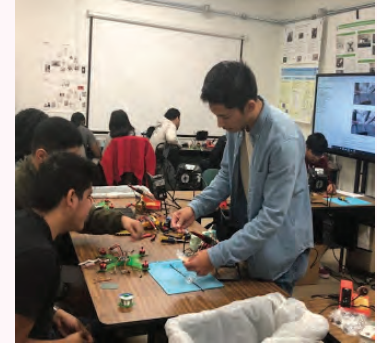
# PRE-ENGINEERING

Mount Pleasant High School



## PROGRAM OVERVIEW

Students in the Pre-Engineering program at Mt. Pleasant take rigorous Project Lead the Way (PLTW) courses for 3 years. Students have the opportunity to earn industry-recognized credentials, post-secondary credits and/or advanced standing in training programs or jobs. PLTW courses are Introduction to Engineering Design, Principles of Engineering, Computer Integrated Manufacturing, and Engineering Design & Development. Students also participate in Junior Achievement.



## DID YOU KNOW?

Students tour engineering firms, local colleges and universities and meet industry professionals to learn about opportunities in engineering and manufacturing.

Pre-Engineering students also regularly participate in FIRST Tech Challenge and FIRST Robotics Competition with Mount Pleasant robotics club.

## OUTCOMES

- Project Lead the Way coursework
- Computer Aided Design certification
- Junior Achievement Personal Finance
- Junior Achievement Career Success
- OSHA 10

## WHAT ARE MY OPPORTUNITIES AFTER GRADUATION?

Two Year Program



**Electrical Technician  
CNC Machinist**

Four Year Program



**Bachelor's in Engineering**  
Mechanical or electrical design engineer  
Process engineer  
Civil engineer  
Aerospace engineer

# MARITIME WELDING/ PIPE FITTING

PROVIDENCE CAREER AND TECHNICAL ACADEMY

## PROGRAM OVERVIEW

Welders are in high demand and the Maritime Welding program provides students with the opportunity to gain the knowledge, welding skills and employability skills they need to begin a career as a welder. Students can earn up to four American Welding Society's (AWS) SENSE Level 1 certificates, as well as the 10 hour safety certification from the Occupational Safety and Health Administration (OSHA-10). Students will also be given the opportunity to participate in paid internships.



## DID YOU KNOW?

By 2023, our nation's workforce will need over 375,000 welders to satisfy the demands of several industries and in the Rhode Island area. Starting salaries after high school begin around \$40,000 per year. Welding is a skill based career that does not require a college degree.

## OUTCOMES

- AWS SENSE Welding Level 1 Certificate
- AWS SENSE Certified Shielded Metal Arc Welding (SMAW)
- AWS SENSE Certified Gas Metal Arc Welding (GMAW)
- AWS SENSE Certified Flux Cored Metal Arc Welding (FCAW)
- AWS SENSE Certified Gas Tungsten Arc Welding (GTAW)
- First Aid
- OSHA 10
- Electric Boat Internship

## WHAT ARE MY OPPORTUNITIES AFTER GRADUATION?

Direct To Work



Entry level or Journeyman  
Apprenticeship at Electric  
Boat

Welding inspector, welding instructor,  
foreman, supervisor, self-employment

Two Year Program



Foreman or supervisor  
Project manager, business  
manager, CEO/Company owner

Four Year Program



Engineering, research and  
development





# AUTOMOTIVE TECHNOLOGY

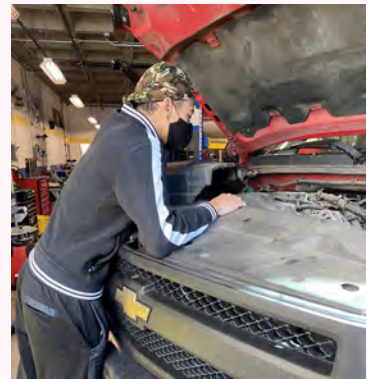
PROVIDENCE CAREER AND TECHNICAL ACADEMY

## PROGRAM OVERVIEW



This program is focused on hands-on learning! Students will spend at least 60 percent of their time in the shop evaluating and repairing vehicles. Students will complete live repairs on vehicles-the same services they will perform when working in the field.

After graduating from PCTA's automotive program, students are prepared for a rewarding career in the automotive field.



## DID YOU KNOW?

Automotive technicians/mechanics service and repair all the systems of the vehicle; engines, steering and suspension, transmissions, brakes, Heating and air conditioning, electrical and engine performance.

PCTA students learn how to service and repair these systems using state of the art industry recognized tools and equipment.

The average wage for automotive service technicians was \$40,710 in May 2018

## OUTCOMES

- Automotive Service Excellence (ASE Certification)
- AllData certification
- ALI lift certification
- 80 Hours of worked based learning

## WHAT ARE MY OPPORTUNITIES AFTER GRADUATION?

### Direct To Work



Mechanic  
Lube technician  
Parts  
Manager  
Aircraft mechanic

### Two Year Program



Associates in  
Automotive Technology  
NEIT, UTI, MTTI, Mass Bay

### Four Year Program



Bachelor's in  
Automotive Technology  
NEIT