

Learn. Become.
Succeed.



Nashua Technology Center Career Pathway Programs

- // Advanced Manufacturing
- // Automotive Technology
- // Biotechnology & Biomedical Science
- // Business Pathway
- // Careers in Education
- // Computer Aided Drafting and Design (CADD)
- // Computer Networking & Cybersecurity
- // Construction Technology
- // Cosmetology
- // Culinary Arts
- // Design & Visual Communications
- // Electrical Technology
- // Engineering Pathways
- // Health Sciences
- // Heating, Ventilation, Air Conditioning and Refrigeration (HVACR)
- // Video Production & Broadcasting

Learn. Become. Succeed.

The NTC mission is to empower all students with the knowledge and skills necessary for career success through innovative and hands-on learning experiences that aim to cultivate a diverse community of lifelong learners.

All NTC programs are academically challenging, aligned with real workforce needs, and designed to promote creativity, leadership and lifelong learning skills. As the state's largest high school Career and Technical Education center—with more than 1,300 students, we have a 40 year tradition of helping all our students to recognize their talents and ambitions, realize their individual potentials, and prepare themselves for life after high school, whether they plan to go on to college, enlist in the military or go directly

into the workforce after graduation.

This brochure provides a summary of available opportunities connected to each of the 16 NTC career pathway programs available to students from *Nashua High School North and South*, and from six area high schools, including *Alvirne, Campbell, Hollis Brookline, Merrimack, Milford and Souhegan*. If you are interested in joining The NTC, or if you want more information, contact your school counselor, go to our website or call or stop by our office in the career centers at either North and South

So check out our brochure and let us show you the many ways The NTC can help you to **Learn, Become and Succeed.**

How do I get more information?



Read this
Brochure



Email us at:
ntcinfo@nashua.edu



Go to our NTC
website



Follow us on
Instagram:
instagram.com/
nashua_tech-
nology_center



Talk to
your school
counselor



Walk into the NTC
Office in the North/
South Career Centers
and Ask

What our students are saying...

“I joined NTC because I wanted a program that went beyond regular high school STEM classes by allowing me to explore and test out career options and pathways that interest me.”

// Rachel Riddell, Biotechnology & Biomedical Science,
Nashua High School North

“When I first toured the NTC I realized that this was the place for me because it's a great mix of shop and classroom learning time, plus I'm getting the opportunity to work in the industry. It's been a really great experience that has inspired me to pursue this career.”

// Jordan Lawrence, Automotive Technology,
Home Schooled

“I want to be a PA someday and the Health Sciences program prepares me for future college and career choices by showing me the steps involved and giving me opportunities to explore that pathway. Choosing NTC was the best option for me!”

// Nevaeh Eppolito, Health Sciences, Nashua High School South

“I have a passion for teaching children and I wanted to start learning how to do that as soon as possible. NTC lets me try out that career choice in a risk-free environment before committing to expensive college choices.”

// Leo Weston, Careers in Education,
Merrimack High School



Advanced Manufacturing

Our Advanced Manufacturing program prepares you for a high-skill manufacturing career by teaching you about measurement, layout and inspection, CNC programing, CAD, automation, robotics, 3D printing and CAM (computer-aided manufacturing). You'll also be exposed to welding, manual lathes and milling machines, injection molding, and customer communication. Second year students can engage in extended, work-based learning opportunities.



Learn: CAD // CAM // CNC design and operation // Manufacturing // Automation // Manual lathes and milling machines
Become: Machine Programmer // CNC Machinist // Automation Engineer // Manufacturing Engineering Technician
Succeed: Extended WBL Opportunities



Automotive Technology

As an Automotive technology student, you'll learn how to troubleshoot, repair and maintain vehicles by using professional-grade equipment in our onsite shop and engaging in work-based learning experiences with local industry partners. The Automotive Technology program follows National Automotive Technician Education Foundation (NATEF) standards, and prepares you to attain your Automotive Service Excellence (ASE) certification.



Learn: Brake systems // Computerized diagnostic testing // Electrical systems // Performance engineering // Steering & suspension systems
Become: Automotive Technician // Diesel Technician // Shop Owner // Marine & Powersports Technician // Parts Technician // Mechanical Engineer
Succeed: ASE Certification // Ford Ace Technician Certification // Snap-On Meter and Scanner Certification // 8-Week Internship at Local Dealership



Biotechnology & Biomedical Science

When you join our Biotechnology & Biomedical Science program, you'll learn to use research tools from both chemistry and biology to study or solve problems in the medical, agricultural and pharmaceutical industries. You'll study microbiology, cellular biology, and molecular biology, as well as master in-demand lab techniques used in today's biotech and life science laboratories. Units of study also include genomics, proteomics and stem cell biology. Second year students have the opportunity to do an independent research project.

Learn: Use of analytical equipment // Culture and characterize types of cells // Prepare solutions // Design experiments and interpret data

Become: Biomedical Engineer // Biochemist // Pharmacist // Forensic Scientist // Physician // Microbiologist // Nurse

Succeed: Up To 8 College Credits // Work-Based Learning // Industry-Recognized Credential // New Hampshire Science and Engineering Expo Competition



Business Pathway

As a business student you'll have the opportunity to explore the many worlds of Business, learning about accounting, ethics, entrepreneurship, finance, management, and marketing. You will develop skills using industry-recognized software and project-based learning. Areas of concentration include entrepreneurship, small business management, operations, accounting, business finance, global business and finance, marketing, and sales.

Learn: Concepts, processes and skills associated with developing and managing business operations // Tools, strategies, and systems to plan, monitor, and control financial resources // Leadership and management principles

Become: Entrepreneur // Small Business Owner // Business Manager // Certified Public Accountant // Financial Analyst // Marketing Manager // Research Analyst

Succeed: Dual Enrollment College Credits // Work-Based Learning Opportunities // DECA Membership // NTC Business Honor Society



Careers in Education

Whether you want a career as a classroom teacher, school counselor, occupational therapist, or child life specialist, this two-year program will provide you with a foundational understanding of modern teaching theory and techniques. You'll also have opportunities to apply that knowledge working with professional mentors in both the Purple Panther Preschool - a fully-functional preschool at Nashua High School South, and in K-5 classrooms at local elementary schools.

Learn: The impact of child growth and development on learning // How to create engaging, exciting learning experiences // Behavior management // How to support all learners
Become: K-12 Teacher // School Counselor // Special Education Teacher // Child Psychologist // Occupational Therapist // Child Life Specialist // Social Worker
Succeed: Up to 9 College Credits // 200+ Hours of Field Experience // Leadership and Community Service Opportunities



Computer Aided Drafting & Design (CADD)

In our CADD program you'll use state-of-the-art drafting and drawing software to design your own industry standard building or product. This program gives you the knowledge and practice needed to produce and analyze multi-view architectural and mechanical drawings, blueprints and design plans. All students have the opportunity to choose one of two self-paced tracks: Architectural Drafting or Mechanical Drafting.

Learn: Mechanical and architectural sketching and drawing // State-of-the-art 2D and 3D printing (rapid prototyping) // SolidWorks
Become: Mechanical/Manufacturing Engineer // Mechanical Drafter // Civil Engineer // Architect // CADD Systems Operator // Construction Manager
Succeed: Up to 10 College Credits // SolidWorks Certification // AIAANH Architectural Design Contest // SkillsUSA Architectural and Technical Drafting Competitions // Virtual Job Shadow



Computer Networking & Cybersecurity

This fast-paced program teaches you to design, develop, support and manage electronic communications and networking systems. You'll learn the strengths and weaknesses of different network types and the protocols that govern network operation. This two-year program is based on the Cisco Academy, a course of study recognized worldwide in preparing students to become Level 1 Network Engineers.

Learn: Internet technologies // Network security and customization // Routing and switching programming // Computer Science theory // Binary and hexadecimal coding
Become: Network Technician // Systems Analyst // Systems Test Engineer // Software Development & Installation Specialist // Telecommunications Specialist
Succeed: Up to 11 College Credits // Cisco Associate and Professional Certification



Construction Technology

In our Construction Technology program you'll learn basic building techniques, gain expertise working with hand and power tools, and develop the ability to read blueprints and understand construction math principles. Your new skills in carpentry, siding and roofing will prepare you for apprenticeship positions and entry-level jobs in all phases of the construction industry. Students also will have the opportunity to network within the industry and participate in community construction projects.

Learn: Use of hand and power tools // Professional techniques and safety measures // Blueprint reading // Construction math principles
Become: Carpenter // Civil & Structural Engineer // Mason // Finish Carpenter // Cabinet Maker // Construction Manager // Architect
Succeed: OSHA 10 Safety Certification // Idea2Career Career Planning and Development Curriculum // Industry Networking Opportunities



Cosmetology

Students in this two-year program are trained in the craft of cutting, styling and waving hair, as well as scalp maintenance, manicures and basic skin care. Successful completion means you'll earn up to 360 hours toward your New Hampshire Cosmetology license education and training. Guest speakers, competitions, and field trips provide students with hands-on experiences, as well as great networking opportunities.

Learn: Hair cutting, styling and coloring // Skin care // Makeup application // Principles of hair design
Become: Salon Owner // Hair Designer // Salon Manager // Platform Artist/Demonstrator
Succeed: Up to 360 Training Hours Toward NH Cosmetology Licensing // Participation in State Skill Competitions



Culinary Arts

As a Culinary student you'll be learning in a commercial kitchen using restaurant-grade equipment, while also developing a working knowledge of the process and safety concerns of selecting, purchasing and preparing high quality food products. This two-year program helps you to establish the skills, work habits and confidence needed to succeed in respected culinary postsecondary schools and excel in the industry. Our program is accredited through the American Culinary Federation Educational Foundation.

Learn: Culinary & food preparation skills // Food safety & sanitation // Planning, purchasing and preparing food in quantity // Professional equipment operations
Become: Chef/Cook // Restaurant/Hotel Manager // Restaurant Owner // Caterer // Food Service Director // Nutritionist // Food Scientist
Succeed: Up to 9 College Credits // ServSafe Certification // SkillsUSA Competition // Join the Professional Chefs of NH



Design & Visual Communications

As a student in our Design & Visual Communications program, you'll work in a state-of-the-art Mac lab and gain expertise using Adobe Creative Cloud, the industry-standard software used by top professional designers. Throughout the two-year program, students explore and develop related skills, including digital illustration, photo manipulation/editing, page spread layouts, print and web design, character design, and animation.

Learn: Digital illustration // Print design // Photo manipulation // Layout design // Web design // Animation // Package design // Print production
Become: Graphic Designer // Art Director // Web Designer // UI/UE Designer // Concept Artist // VFX Designer // Motion Graphics Designer
Succeed: Up to 3 College Credits // Eligible for Adobe Certifications



Electrical Technology

In this program you'll take part in simulated worksite situations where you'll learn to apply electrical theory and the appropriate electrical codes. Students are trained on modern electrical devices and equipment used in residential, commercial and industrial applications. Completers earn 600 hours of classroom and work credit towards their journeyman's license. Students also receive their NH Electrical Apprentice card and OSHA 10 hour safety certification.

Learn: Electrical safety // Residential wiring // Commercial wiring // Electrical theory
Become: Journeyman/Master Electrician // Electrical Engineer // Electrical Drafting Specialist // Wind Turbine Technician // Photovoltaic Systems Installer
Succeed: NH Electrical Apprentice Card // 600 Hours Toward Journeyman Training // OSHA 10 Safety Certification // College Credits



Engineering Pathways

This program allows you to explore the world of engineers, architects, manufacturers and design technicians. In *Introduction to Engineering Design* (IED), you'll learn the engineering design process, applying math, science and engineering standards to design solutions to real problems. *Principles of Engineering* (POE) students explore the range of diverse engineering fields. *Engineering Design and Development* is the capstone course for this program which requires you to identify a challenge, then research, design and test a solution that you present to a panel of engineers. This program utilizes the Project Lead the Way curriculum.

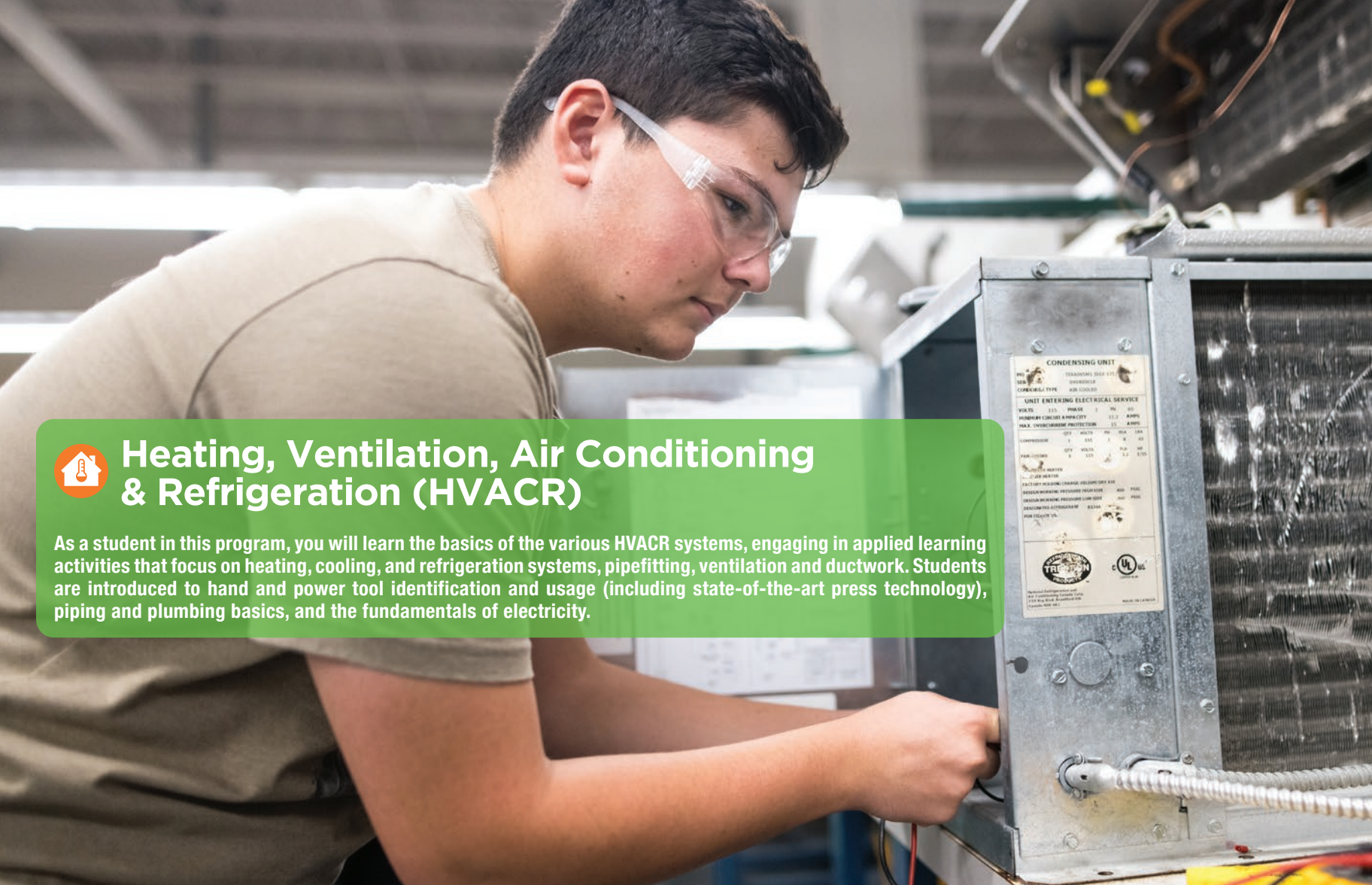
Learn: Problem solving and product design // Robotics // Programming and prototyping tools // Developing design solutions using 3D modeling software
Become: Chemical Engineer // Electrical Engineer // Mechanical Engineer // Software Engineer // Civil Engineer // Manufacturing Engineer
Succeed: Up To 6 College Credits // BAE Systems Internship Opportunities // Industry Networking Opportunities



Health Sciences

As a student in our Health Sciences program, you'll build a strong foundation of knowledge and experience that will help you better target your interest and build your career as a healthcare professional. This two-year program offers work-based learning opportunities, both on-site in our updated facilities and in the field through internships and job shadows with our community partners. Second year students can prepare for Nurse Assistant Licensure (LNA).

Learn: Anatomy and physiology // Medical terminology // Nursing skills associated with becoming a Licensed Nursing Assistant // Dental and PT skills
Become: Nurse // Physician // Lab Technician // Medical Assistant // Dentist // Physical or Occupational Therapist // Radiologist
Succeed: Up To 3 College Credits (Medical Terminology) // American Heart Association CPR/Basic Life Support Certification // LNA Certification // First Aid Certification



Heating, Ventilation, Air Conditioning & Refrigeration (HVACR)

As a student in this program, you will learn the basics of the various HVACR systems, engaging in applied learning activities that focus on heating, cooling, and refrigeration systems, pipefitting, ventilation and ductwork. Students are introduced to hand and power tool identification and usage (including state-of-the-art press technology), piping and plumbing basics, and the fundamentals of electricity.

Learn: Brazing // Soldering // Pipe fitting // HVACR system design and management // Preventative maintenance // Basic electricity and wiring
Become: HVACR Technician // Design Engineer // Green Technology Specialist // Pipefitter // Sheet Metal Worker // Energy Auditor
Succeed: 3 College Credits // OSHA 10 Safety Certification // EPA 608 Certification // Swagelok Certification // Viega Systems Press Fitting Certification



Video Production & Broadcasting

Our Video Production & Broadcasting program prepares you for a career in the Entertainment, News and Corporate media industries. You'll learn camera, audio, lighting, editing and pre-production skills in our state-of-the-art broadcast facility, and apply those skills producing professional-grade projects. As only one of a few high schools in the country to be an Avid Learning Partner, all students will have an opportunity to earn their Avid Media Composer User certification.

Learn: How to produce professional quality video and television productions using state-of-the-art, industry standard equipment
Become: Media Technician // Entertainment Producer/Director // Video Editor/Videographer // Sound Technician // New Media Producer
Succeed: 3 College Credits // Avid Media Composer User Certification // WBL and Media Internship Opportunities // College- and Career-Ready Portfolio

CTE Discovery Courses

The NTC encourages and supports career exploration and development courses for Nashua North and South students. The following CTE Discovery Courses are currently being offered:

Tech Ed

- Woodworking I
- Woodworking II
- Power Mechanics I
- Power Mechanics II
- Electricity/Electronics
- Marine Robotics
- Graphic Design I
- Graphic Design II
- Robotics using Vex
- Drone Technology

FACS

- Parenting
- Interior Design
- On Your Own
- Human Relations
- Lifespan Nutrition
- Foods Technology
- Exploring Contemporary Cooking
- Child Growth and Development

Business

- Intro to Business
- Desktop Publishing
- Digital Apps and Communication
- Personal Finance

Note: For a full list of CTE Discovery Courses offered, please check the Nashua High School Course Selection Catalog.



What You Should Know About Modern Career and Technical Education

A 21st Century Approach to College and Career Preparation...

Today's high school CTE programs bear little resemblance to the shop classes and "voc ed" programs of the past. These next-generation CTE programs integrate rigorous academic instruction into the teaching of technical and employability skills, helping students to jumpstart their college and career plans.



Modern CTE ...

- 1 Prepares Students For Success by Connecting Classroom Lessons to Career Ambitions**
 - // Project-based learning
 - // Job shadows, internships, worked-based learning
 - // Employability skills and development of work-ready ethics and values
 - // Career pathway guidance and postsecondary education planning
- 2 Propels Students Down Career Pathways**
 - // Develop a strategic approach to education, career choice and readiness
 - // Collect college credits that jumpstart postsecondary pathways
 - // Earn industry-recognized certifications and licensing hours
 - // Gain authentic, career-focused education and experience



- 3 Provides Students With The Tools to Succeed**

- // Modern facilities with industrial-grade equipment
- // Accomplished instructors who have proven themselves in their respective fields
- // Industry and community reference and networking contacts
- // Access to state and national co-curricular leadership organizations (CTSOs)





Nashua Technology Center

North: 8 Titan Way, Nashua, NH 03063

South: 36 Riverside St., Nashua, NH 03062

For more information:

Talk to your school counselor

Speak with current students and alumni

Meet with our expert teachers

Email us at ntcinfo@nashua.edu

Go to our website:



Check out our Instagram page:



MESSAGE FROM NTC TEACHERS AND STAFF: No matter your passion or interest, our CTE programs are designed to provide you with real-world skills and a structured pathway to exciting and fulfilling careers. The NTC offers hands-on learning, industry-relevant curriculum, dedicated and experienced faculty, state-of-the-art facilities, career guidance and support, and CTE Discovery Courses. To learn more, email us at ntcinfo@nashua.edu, attend an information session, or schedule a tour with our amazing NTC student ambassadors. We are excited for you to **LEARN, BECOME, and SUCCEED** with us!

It is the policy of the Nashua Technology Center not to discriminate on the basis of race, color, national origin, gender, sex or handicap in its employment, services or activities as required by Title VI of the Civil Rights Act of 1964, as amended; Title IX of the Education Amendments of 1972; Section 504 of the Rehabilitation Act of 1973, as amended; Americans with Disabilities Act of 1990; and NH RSA 354-A.