DID YOU KNOW?

According to a Brookings Institution study, STEM jobs—those requiring a science, technology, engineering, or math-related degree—not only account for more than 20% of jobs in the United States, but many of them pay wages close to double the U.S. average.

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Learn what you love.

www.salemcte.com
Greetings,

Thank you for taking the time to consider a Salem CTE Program. Many are quick to dismiss CTE programs with the belief that they are only for students who are not interested in attending college after high school. The reality is that the majority of our CTE students do go on to attend 2 and 4 year colleges, enroll in apprenticeship programs, or earn industry certificates. In today’s high tech economy, a high school diploma simply isn’t enough. Student will require some form of post-secondary training to earn a competitive wage. Employers continually tell me that they are looking for students who have a strong work ethic, will show up to work on time and possess collaborative and critical thinking skills. These are the skills that set us apart from your typical academic course. In CTE we emulate a work environment while fostering skills of work-readiness, collaboration, critical thinking, creative thought and communication skills. This is accomplished through a project-based curriculum coupled with work-based learning experiences such as working in the Salem AutoTech shop, serving lunch in the Three Seasons Restaurant, managing the Devil’s Den Café, doing ride time on the Salem Fire Department’s Ambulance, attending clinical rotations at Northeast Rehabilitation Hospital, or working on a carpentry project for a Salem home owner. These are just a few examples of the hands-on experiences our students have as CTE students.

So some will ask, why should I take a CTE program, what are the benefits? They include:

- You will have an opportunity to learn skills and train on high tech, state-of-the art equipment.
- You can leave high school with a marketable skill set.
- The typical high school student leaves high school with a solid academic education and diploma while a CTE student leaves high school with all that and a marketable skill set or a jumpstart on and a strong understanding of their chosen career pathway.
- CTE students are part of a cohort of like-minded peers, focused on learning a trade or vocation or pursing a common major of study.
- CTE students give back to their community. Many are involved in career and technical student organizations (CTSO’s) and participate in community service projects and fundraising such as Skills, USA, FBLA, HOSA, Holliday Helpings.
- CTE has something for students of all abilities, ambitions and aspirations.

We hope you will consider enrolling in a CTE program.

Sincerely,

Chris Dodge, Director
WHAT’S NEW AT SALEM CTE?

The start of the 2018 school year will see the completion of 3 years of renovation and reconstruction of the Salem CTE Center. All of our programs have been completely rebuild or renovated and will include:

- **New automotive shop**: Includes a new 15 ton truck lift, a new in slab alignment lift and machine, industry standard Hunter alignment, tire machine and road force balancing equipment.

- **Engineering suite**: Includes a CADD Lab, engineering work lab and a fabrication laboratory equipped with CNC mill and lathe, laser cutter, welding booth, CNC driven Plasma cutter and table, 3D printing, and other metal and fabrication tools.

- **State of the art nursing and simulation lab**: Includes two simulation mannequins where students can practice their skills for patient assessment, treatment and care.

- **New TV and media production suite**: Includes a classroom, editing lab, sound proof editing room, control room and a production studio.

- **New biomedical science lab**: Equipped with amazing equipment for carrying out advanced biomedical and biotechnology techniques and processes such as protein production and purification, DNA extraction and microbiology techniques.

- **New cosmetology salon and classroom**: Students will learn hair cutting and styling techniques, how to do pedicures and manicures and facial techniques. Students earn apprentice hours toward their cosmetology license.

- **New culinary arts kitchen and restaurant**: This new state of the art kitchen, and restaurant facility will provide students with and opportunity to learn culinary techniques as well as restaurant and banquet management.

- **New carpentry and construction lab and build space**: Student learn residential carpentry techniques and systems while completing both pre-fab and on-site projects.

- **A brand new lab and classroom for our digital graphic applications program**: Equipped with amazing printing and production equipment for creating a variety of graphics based projects and products.

- **A new computer science and technology lab and data center**: This facility will provide state-of-the art computer and computer networking technology and serve as the environment for teaching a variety of branches of IT.

- **Teacher preparation classroom**: This new classroom with serve as the “home base” for the teacher preparation program which combines classroom and filed experience in a variety of school settings.

- **A business and marketing store and café**: For fostering a collaborative approach to business education and operation of the school-based enterprise.
This two-year program is designed to train students for a career in the automotive repair industry. Students perform services on vehicles in a functioning repair shop setting, gaining the experience and knowledge necessary to move directly into the field as an entry level technician or transition into a two year post-secondary program.

**WHAT YOU WILL LEARN**

- Shop safety and operations
- Front-end alignment
- Engine components
- Steering and suspension
- Brakes systems
- Electrical diagnosis and repair
- Scan tool use
- Cooling and heating systems
- Vehicle safety inspections
- SP2 Safety Certification
- Valvoline Oil Certification
- Student-level ASE Certification
- College credit through Manchester Community College

**CREDITS + CERTIFICATIONS**

- AUTOMOTIVE TECHNOLOGY
The Biomedical Science program consists of three semesters of laboratory-based learning that introduces students to techniques employed in the biomedical and biotechnology industry while also teaching and reinforcing the skills required to be a successful laboratory technician in any scientific field.

**WHAT YOU WILL LEARN**

- The role of biotechnology in society including the risks and benefits.
- Lab techniques in DNA manipulation, cell culture, protein, purification, drug discovery, and bioinformatics.
- Advanced techniques in recombinant DNA technology, protein production, purification, DNA ‘barcoding’, and plant and animal cell culture.
- Microbiology concepts and techniques such as aseptic technique, growing cultures, preparing media, microbial genetics, microbial diagnosis, and virology.

**COLLEGE CREDITS**

College credit available through Great Bay Community College.

**CAREER OPPORTUNITIES**

Medicine, genetics, biotechnology, laboratory technician, pharmaceuticals, biochemistry, biomedical engineer, forensic scientist, researcher.
Business Pathway is a project-based business program that develops students’ understanding and skills in such areas as business, law, economics, financial analysis, human resources management, information management, marketing, and operations. Students participate in real-world projects while developing technology, communication, collaboration and critical thinking skills. These projects in business management and entrepreneurship prepare students for entry-level positions and provide a foundation for further education.

WHAT YOU WILL LEARN

- Business operation and management
- College-level accounting
- Business law

COLLEGE CREDITS

Opportunity to earn 12 credits through Manchester Community College, which may be transferred to a four-year college.

CAREER OPPORTUNITIES

Accountant, controller, auditor, payroll manager, purchasing manager, business manager, financial analyst, financial advisor.
Carpentry & Construction

The Carpentry & Construction program is designed to prepare students for employment or advanced training in the construction industry. The program includes a blend of classroom theory and on-site, hands-on construction projects that teach basic building systems and techniques. Emphasis is placed on workplace and tool safety instruction.

What You Will Learn

- Tool selection and usage
- Plan reading and layout
- Footings and foundations
- Floor and wall systems
- Roof and stair framing
- Insulation and siding systems
- Window installation
- Roofing
- Finish work

Credits & Certifications

- OSHA 10 hour card

Career Opportunities

Architect, engineer, commercial construction work, carpenter, plumber, electrician, mason, contractor, building inspector.
The Computer Science and Technology Pathway is designed for students who are interested in careers in the information technology sector such as networking, computer repair, programming, software development and computer engineering. This is one of the fastest growing sectors for job growth with excellent earning potential. Career pathways include certificate programs, and two and four year college degrees.

**WHAT YOU WILL LEARN**
- Computer Systems configuration.
- Troubleshooting, diagnosis and repair.
- Computer assembly
- Basic programming languages.
- Object oriented programming.
- Network configuration
- Cybersecurity

**CREDITS + CERTIFICATIONS**
- TestOut PC Pro Certification
- Up to 9 college credits from Manchester Community College.

**CAREER OPPORTUNITIES**
- Network administrator, network engineer, network analyst, information systems administrator, network technician, computer repair specialist.
Cosmetology is the newest program offered at the Salem CTE where a brand new salon and classroom have been constructed. Cosmetology is a high demand area with a strong employment outlook. The State of New Hampshire requires 1500 hours of education and clinical experience for licensing. Through partnerships with post-secondary cosmetology schools, students can earn up to 300 clinical hours over the 2 year CTE program. Students should have strong communication skills as this is a very social environment.

**WHAT YOU WILL LEARN**
- Hair cutting and styling techniques
- Hair coloring
- Make-up techniques
- Facials and pedicures
- Salon operation

**COLLEGE CREDITS**
Up to 300 apprentice hours can be applied to cosmetology school.

**CAREER OPPORTUNITIES**
Cosmetologist, barber, esthetician, nail technician, makeup artist, entrepreneur.
The Culinary Arts program is an ideal choice for anyone who loves to cook and wants a broad—yet thorough—background in the culinary arts. This highly hands-on program is designed to provide students with the knowledge and skills required to secure employment in the food service and hospitality industry or advanced study at a culinary institute or college.

**WHAT YOU WILL LEARN**

- Safety and sanitation
- Knife skills
- Introduction to baking and pastry
- Handling and preparation of:
  - Meats, poultry, and seafood
  - Vegetables and starches
  - Soups, sauces, and salads
  - Breakfast items
- Table service
- Cost control
- Menu planning
- Restaurant operations

**CERTIFICATION**

- ServeSafe Certification

**COLLEGE CREDITS**

College credit through Lakes Region Community College.

**CAREER OPPORTUNITIES**

Executive chef, pastry chef, sous chef, caterer, restaurant cook, food and beverage manager, restaurant manager/owner.
DIGITAL GRAPHIC APPLICATIONS

The digital graphics application program provides students with a diverse exposure to multiple digital media types and digital graphics layout and design. A strong focus is on learning and applying Adobe Creative Cloud applications including InDesign, Photoshop, Illustrator, Dreamweaver, Premiere and Animator. Students will work in a creative, project-based environment learning skills such as page layout, web design, app design, animation and video editing.

WHAT YOU WILL LEARN

- Advanced features of the Microsoft Office suite.
- Adobe InDesign: desktop publishing, including page layout and design.
- Adobe Photoshop: photo and image editing
- Adobe Illustrator: creation of vector graphics
- Adobe Premiere: video editing
- Adobe Dreamweaver: web design

CERTIFICATION

- Adobe Certification,
- Up to 9 college credits from Manchester Community College

CAREER OPPORTUNITIES

Graphic designer, web designer, art director, multimedia artist/ animator, marketing specialist, art production manager.
Students in the Engineering program engage in a blend of academic units combined with design challenges where they learn to work as a team. This is a unique opportunity to apply engineering, science, math, and technology to solve complex, open-ended problems in a real-world context. Students focus on the process of defining and solving a problem, not on getting the “right” answer.

**WHAT YOU WILL LEARN**

- The engineering design process.
- How to use engineering design software to problem-solve.
- Engineering principles and technology.
- The engineering factors involved in building design and construction.
- Introduction to applied digital logic.
- How to design circuits and generate a working circuit board.
- How to use mathematics and science in solving real-world engineering problems.

**COLLEGE CREDITS**

Students can earn up to 12 college credits from NHTI.

**CAREER OPPORTUNITIES**

Engineering (chemical, mechanical, civil, architectural, robotics, aerospace, etc.), physics, product design, manufacturing.
HEALTH SCIENCE TECHNOLOGY

Health Science Technology is an academically rigorous and physically demanding program that emphasizes teamwork, interpersonal relationships, and the effective communication skills necessary to work in a healthcare setting. This outstanding program will prepare you for a variety of healthcare jobs.

WHAT YOU WILL LEARN
- Anatomy and physiology.
- Medical terminology.
- Gown, glove and hand washing techniques.
- Basic patient care techniques.
- Patient observation and documentation.
- Safety issues and infection control.
- Vision and hearing testing.
- Taking vital signs (temperature, pulse, respiration and blood pressure).
- How to perform an EKG.

CREDITS + CERTIFICATIONS
- Three college credits in medical terminology from Manchester Community College.
- American Heart Association CPR Certification.
- Upon successful completion of the EMT or NA program, and the corresponding state licensing exam, licensing will occur.

CAREER OPPORTUNITIES
Physician, nurse, EMT, physician assistant, occupational or physical therapist, pharmacist.
In the Marketing & Sales program, students develop the skills to analyze the techniques businesses use to influence consumers’ buying decisions. As a result, students make the transition from thinking like a consumer to thinking like a marketer. The marketing program is designed to provide hands-on experience in both the classroom and in a school-based enterprise.

**WHAT YOU WILL LEARN**
- Market research
- Marketing communications
- Consumer behavior
- Product planning
- Visual merchandising and pricing
- Advertising and promotion
- Media planning
- Sales strategies

**MEMBERSHIP OPPORTUNITY**
Students have the opportunity to participate in FBLA and DECA.

**CREDITS + CERTIFICATIONS**
College credits from Manchester Community College.

**CAREER OPPORTUNITIES**
Advertising, public relations, sales, media buying, brand management, market research.
The Teacher Preparation program provides first-hand experience for students who are interested in careers within the field of education. Students become skilled at teaching children of various levels and abilities while learning about the pedagogy and skills necessary for success in this career field. Throughout this two-year program, students learn about education theory and teaching strategies as well as observing and interning in classrooms of various grade levels.

**WHAT YOU WILL LEARN**
- Education theory related to teaching across multiple age levels.
- Designing and implementing curriculum.
- Developing critical thinking skills in learners.
- Assessing learners.
- Planning and supervising the operation of the school routine.

**COLLEGE CREDITS**
Students are eligible to earn college credit from Southern NH University.

**CAREER OPPORTUNITIES**
Teacher, special education teacher, school counselor, speech or occupational therapist.
Students experience both the creative and technical aspects of video production through the Television & Media Production program. This highly hands-on, project-oriented program teaches a multitude of skills and techniques that rivals many college programs. Students work independently and in crews producing, writing, directing, and videotaping their own projects as well as school district activities for Salem’s Channel SLC 6.

WHAT YOU WILL LEARN

- Principles of story development, script writing, and storyboarding.
- Set design.
- Camera set-up and operation.
- Audio mixing, lighting and switching.
- How to use cutting-edge software applications for video and audio post-production.

COLLEGE CREDITS

Three college credits are available through Lakes Region Community College.

CAREER OPPORTUNITIES

Video, TV or film producer, production assistant, video editor, camera operator.
The National Institute for Automotive Service Excellence (ASE) recognizes the Salem Automotive Technology program as a certified training program and it has achieved National Automotive Technicians Education Foundation (NATEF) Certification. Automotive Technology 2 students are eligible for student level ASE Certification and have the opportunity to compete in Skills USA competitions.

DID YOU KNOW?

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FREQUENTLY ASKED QUESTIONS

WHERE IS SALEM CTE LOCATED?
The Salem Career and Technical Education (CTE) Center is located at Salem High School: 44 Geremonty Drive, Salem, NH 03079.

WHO CAN ATTEND?
If you are a student at either Pelham, Pinkerton, Salem, Timberlane or Windham High School, you are eligible to attend Salem CTE.

HOW WILL I GET THERE?
If you are not a student at Salem High School, bus transportation is provided. If needed, self-transportation will be reimbursed.

WHAT’S THE BENEFIT?
Salem CTE programs prepare you with a college prep education as well as the real-world skills that will allow you to graduate from high school with more than just a high school diploma. You will have gained an academic foundation plus the work and technical skills needed to prepare you for the next step—whether a career or college.

HOW MUCH DOES IT COST?
Salem CTE is a free program. There is no cost for tuition or transportation.

HOW DO I APPLY?
Visit www.salemcte.com to download an application.

ARE YOU READY TO LEARN WHAT YOU LOVE?
The CTE experience I had in the health professions program was profoundly meaningful to my career path. The thorough courses and dedicated teachers enabled students to truly engage in the learning materials and apply knowledge and skills in college and beyond."

- Jessica Sexton ’08