# Automotive Mechanics Technician

Program Code:

470604

Program
Description:

The NATEF-certified Automotive Mechanics Technician program covers Maintenance Light Repair (MLR), fundamentals of the internal combustion engine, engine performance & repair, engine diagnosis, exhaust systems & emission controls, steering & suspension systems, front-end alignment, use of computerized diagnostic testing equipment, basic fuel-injected systems, electrical systems, on-board computers, and proper lab and shop safety techniques. Students participate in a shop environment, where they perform automotive repairs on vehicles scheduled in the facility.

# Career-Related Core Skills & Understandings (examples of):

Students will:

#### · Math:

- Be able to use fractions and decimals and complete precision measuring using micrometers, calipers, dial indicators measuring weight, distance, wheel balance, alignment angles, and digital diagnostics.
- o Geometry is used in wheel alignment.

#### • Writing:

 Be able to write an error-free report, without any outside editing, that describes the 3C's— Concern, Cause, and Correction—to be delivered to customers and factory representatives, documenting warranty work for payment.

#### · Reading:

 Be able to read automotive textbooks written at the 11<sup>th</sup> grade level and Industry service manuals written at the 12<sup>th</sup> grade+ level.

#### · Computer Skills:

- Use computers, meters, and scanning tools to diagnose mechanical and electrical difficulties.
- Use online resources, including repair databases like ALL DATA, that describe maintenance processes.

# Career-Related Personal Qualities, Physical Attributes, & Employability Skills (examples of):

Students should have:

#### · Personal Qualities:

o Strong attendance, a clean driving record, and a safety-minded, inquisitive nature.

#### · Physical Attributes:

 Dexterity, depth perception, visual tracking, hand-eye coordination, and the ability to exert force of and /or lift 50 pounds.

# • Employability Skills:

- o Diagnostic and troubleshooting skills and the ability to collaborate and research problems.
- The ability to interact respectfully with a variety of individuals. A keen focus on customer care and the needs of customer is not negotiable.
- A strong work ethic and attention to detail.

# Common Measures of Success for First Level of CTE Program (examples of):

- Pass Industry-established written and performance-based safety tests before engaging in any
  hands-on element of the program. Students must pass written and application (demonstrate)
  safety tests for all program appropriate tools, processes and area-specific equipment. Examples
  include: SP2 Online Safety Testing, Brake Machine, Lift Safety Test, A/C Machine, Tire
  Balancing/Changing Machine, etc. This exam was chosen because it is the same exam used by
  Industry and post-secondary. Once a student passes, he/she does not need to take again.
- Complete and pass one or more of the following: OSHA 10 Safety Certification, ASE Automotive Student Certification (Basic to Particular), and/or certification for SNAP-ON Tools.
- Develop the mechanical skills and be able to physically remove and install parts.
- Meet, and regularly demonstrate growth towards meeting, State Competencies.

- Possess a valid NH Drivers license and a clean driving record (no tickets, no accidents). A clean driving record is critical for Industry employment.
- Earn industry-respected certificates including from SNAP-ON, ASE, and SP2.
- Demonstrate personal and career development skills by completing a career plan and/or Career Pathway Plan of Study (CPPOS).
- Engage in personal opportunities to practice, including independently obtaining internships and potentially paid work opportunities related to this career.
- Demonstrate readiness for college level math, writing, reading, and/or computer skills by taking the *Accuplacer* exam (placement depending on the college).
- Register for dual enrollment Running Start credit offered for Automotive Technology.
- Tour relevant colleges and programs, including Manchester Community College, Nashua Community College, Lakes Region Community College and White Mountain Community College, related to automotive technology.
- Take and pass *TAC Math* Running Start class as a senior, which, in most cases, replaces the first college math class associated with the Auto major.

# Computer Installation & Repair Computer Programming Computer Software & Media Computer Systems Networking (Information Technology)

Program Code:

Program Description:

Information technology programs range from programming to networking, computer repair to robotics. Students learn technical skills (as well as certificates) that are valued by industry and post-secondary pathways.

# Career-Related Core Skills & Understandings (examples of):

Students will:

- Reading:
  - Read texts and other research materials (including those online) at the 11<sup>th</sup> grade+ to college levels, as well as read and use often lengthy and intense (very detailed) technical manuals and schematics.
- Writing:
  - Write to a granular detail level, including: step-by-step procedures, work-completed details, naming conventions, commented code (describing all aspects of a program for other programmers) and program requirements documents.
- Science:
  - Understand electrical systems (for computer repair and networking); apply scientific thinking related to troubleshooting systems and testing code.
- · Math:
  - Apply logic (major component of troubleshooting and programming), arithmetic (converting numbers to binary networks), and calculation and measurement. Programming involves high-level analytical skills.
- Computer Skills:
  - Effectively conduct online research and engage in professional collaboration online.

## Career-Related Personal Qualities, Physical Attributes, & Employability Skills (examples of):

Students should have:

- Personal Qualities:
  - Strong attendance; a focus on safety and detail; a willingness to do what it takes to complete a job; respect for confidentiality; the ability to collaborate and learn from experts.
- Physical Attributes:
  - Small motor coordination; hand-eye coordination; the ability to correctly select tools, and to work long hours and sit for extended periods of time.
- Employability Skills:
  - A willingness to verify, review, test all solutions before they are used by customers/clients and the ability to anticipate potential problems and communicate and collaborate to avoid.

## Common Measures of Success for First Level of CTE Program (examples of):

- Pass safety tests for all program appropriate tools, equipment and processes.
- Demonstrate the resourcefulness to solve IT problems, both real and case stories.
- Demonstrate the ability to recall the parts and systems involved in computer repair, networking, and programming.
- Identify and solve practical lab problems involving troubleshooting computer repair, upgrading
  and installing operating systems, establishing a basic network, and producing a working program.
- Meet, and regularly demonstrate growth towards meeting, State Competencies.

- Demonstrate personal and career development skills by completing a career plan and/or Career Pathway Plan of Study (CPPOS).
- Pass certification available exams, including A+, HP IT Essentials, Cisco Network Associate (Networking Basic). Use of notes during certification testing is not allowed.
- · Take challenging high school math, physical science, and technology courses to enhance skills.
- Engage in personal opportunities to practice skills, including independently obtaining internships and paid work opportunities related to this career.
- Demonstrate readiness for college level math, writing, reading, and/or computer skills by taking the Accuplacer exam (placement depending on the college).
- Register for dual enrollment college credit courses (Running Start) offered related to the Information Technology program.
- Tour relevant college programs, such as: New Hampshire Technical Institute, University of New Hampshire, and more.

# Cooking & Related Culinary Arts Restaurant, Culinary & Catering

Program Code:

120500 120504

Program Description: The Restaurant and Hospitality Industry is an exciting, dynamic, and rewarding field that offers a wide variety of opportunities. The two-year Culinary Arts Program offers a comprehensive curriculum, including practical-based learning activities in cooking, baking, catering, and culinary competitions. Students completing the program will be prepared for immediate employment in a commercial culinary environment and/or continued education in a Culinary Arts or Restaurant Management Program.

# Career-Related Core Skills & Understandings (examples of):

Students will:

#### · Math:

 Have strong basic math skills, including measurement by weight and volume, calculation of costs and percentages, creation of selling prices, inventory processing, and accounting.

#### Reading:

 Read culinary literature (textbooks, cookbooks, health and safety instructions and codes, electronic and other resource materials) written at the 12<sup>th</sup> grade+ level.

#### Technical Writing

 Understand technical writing (recipes, safety, use of tools, etc.) and be able to transfer technical information to other documents.

#### Computer Skills:

o Have computer fluency with Word, Excel, and point-of-sale systems.

# Career-Related Personal Qualities, Physical Attributes, & Employability Skills (examples of):

Students should have:

## Personal Qualities:

 Strong attendance; a focus on safety and hygiene guidelines; and a respectful and reliable nature.

# Physical Attributes:

 Manual dexterity; depth perception; visual tracking; hand-eye coordination; the ability to exert force of and /or lift 50 pounds; the ability to work in a variety of conditions that may include hot, cramped, and very active environments.

#### · Employability Skills:

- o The ability to communicate successfully with customers and co-workers.
- The ability to maintain consistent quality of product, even after long hours of standing and physical demds, and be able to work within time limits.

# Common Measures of Success for First Level of CTE Program (examples of):

- Pass safety tests for all program appropriate tools, equipment, and processes. During the
  program, students will be expected to prepare for and pass the Industry and post-secondary
  standard ServSafe Foodhandler Certification without notes and within the time limit provided.
  Recertification is required every 5 years. The exam is offered in different languages.
- Demonstrate safe use of knives and the ability to produce consistent and uniform knife cuts.
- Wear the proper uniform, safety shoes, and understand and follow proper hygiene standards.
- Read and follow recipes to produce a variety of savory and sweet products, including appetizers, soups, main entrees, and desserts.
- Use tools and product to produce a marketable (product that can be sold to the public) end result.
- Taste and evaluate product produced.
- · Identify ingredients by sight, taste and smell.
- Meet, and regularly demonstrate growth towards meeting, State Competencies.

- Demonstrate personal and career development skills by completing a career plan and/or Career Pathway Plan of Study (CPPOS).
- Engage in personal opportunities to practice, including independently obtaining internships and paid work opportunities related to this career.
- Demonstrate readiness for college level math, writing, reading, and/or computer skills by taking the *Accuplacer* exam (placement depending on the college).
- Register for dual enrollment college credit courses (Running Start) offered related to the Culinary program.
- Tour relevant college programs, such as Lakes Region Community College, Johnson and Wales, New England Culinary Institute, Culinary Institute of America.
- Take the dual college credit course (Running Start) known as *TAC Math*, if available, as it may provide the opportunity to replace the first college math class associated with the Culinary major.

# Health Science – Professions & Related Services

Program Code:

519999

Program
Description:

The program is focused on the study of body systems and the associated disease processes. Emphasis is placed on critical thinking skills, analyzing professional/ethical characteristics required of healthcare professionals, and development of clinical skills through classroom lab and practical experiences. The curriculum provides the student with a strong foundation of knowledge and skills (including certificates) to successfully transition into post-secondary health care education.

## Career-Related Core Skills & Understandings (examples of):

# Students will:

## · Literacy Skills:

 Have the aptitude to read, write, spell, abbreviate and define approximately 2,000 medical terms (medical terminology); have the ability to read and comprehend complex text (11<sup>th</sup> grade+ level); and memorize medical information for recall.

#### · Critical Thinking:

 Identify cause/effect relationships; use the scientific method to think through situations; evaluate effectiveness of options and outcomes.

#### · Math:

 Calculate dosages, drip rates and conversions from basic metric to US standard; understand and use statistics.

#### · Science:

 Read and understand college level text (anatomy & physiology); integrate understandings from biology and chemistry.

#### · Computer Skills:

o Be able to effectively use a variety of computer programs.

#### HIPPA:

 Understand, demonstrate, and respect confidentiality (HIPPA Regulations) as it applies in all aspects of the Health Professions field.

## Career-Related Personal Qualities, Physical Attributes, & Employability Skills (examples of):

#### Students should have:

#### • Personal Qualities:

The ability to process situations quickly and make careful decisions; strong attendance; a
focus on safety and appropriate hygiene; the ability to re-prioritize quickly and to understand
confidentiality.

# Physical Attributes:

 Physical dexterity to stand and work for long hours; small motor coordination; hand/eye coordination; the willingness to touch people; the ability to see, listen, and touch patients to determine their status. Refer to ADA Implications for Nursing Education.

## · Actual Employability Skills (Soft Skills):

- The ability to initiate communication with a variety of people from ages 0 100+ with diverse needs; strong people skills, including the ability to collaborate as part of a medical team; peer accountability.
- The ability to be independent and effectively meet all expectations in an independent manner and follow, without compromise, standard procedures.

#### Common Measures of Success for First Level of CTE Program (examples of):

- Pass safety tests for all program-appropriate tools, equipment and processes. This includes understanding the use of and demonstrating the use of a variety of hospital/healthcare equipment.
- · Pass CPR testing.
- Understand and demonstrate the importance of safety, confidentiality, body electronics and use of personal protective equipment.
- Transfer patients; know how to read blood pressure machine, how to bathe patients, and how to toilet patients.
- Demonstrate a willingness to do extensive clinical hours, including outside the school day.
- Meet, and regularly demonstrate growth towards meeting, State Competencies.

- Complete State Board LNA, EMT, and CPR testing. Use of notes during testing is now allowed.
- · Have a clean background check, which is required before working in clinical locations.
- Demonstrate personal and career development skills by completing a career plan and/or Career Pathway Plan of Study (CPPOS).
- Engage in personal opportunities to practice, including independently obtaining internships and potentially paid work opportunities related to this career.
- Demonstrate readiness for college level math, writing, reading, and/or computer skills by taking the *Accuplacer* exam (placement depending on the college).
- · Register for dual enrollment/Running Start credits.
- · Tour relevant colleges and programs.
- Take the dual college credit course (Running Start) known as *TAC Math*, if available, as it may provide the opportunity to replace the first college math class associated with the major.

# **Lodging Management**

Program Code:

520904

Program
Description:

The Lodging Management program immerses students into the world of hospitality. Students will be taught all areas of the lodging industry and will learn the management principles needed to achieve success in a hospitality leadership role. Management topics covered include: front desk/guest services, housekeeping, marketing and sales, spa and event services, and food and beverage.

## Career-Related Core Skills & Understandings (examples of):

Student will:

- Math:
  - Conduct accounting practices and operational finance (budget writing, night audit calculations, revenue, expenses, average daily rate, profit and loss statements, inventories).
- Reading:
  - o Read guest folios, registration forms, online reviews, and procedure manuals.
- · Computer Skills:
  - Navigate database.

#### Career-Related Personal Qualities, Physical Attributes, & Employability Skills (examples of):

Students should have:

#### Personal Qualities:

Strong attendance and time management; responsibility; good hygiene.

## Physical Attributes:

 The stamina and strength to work long hours; the ability to work in a fast-paced environment.

#### · Employability Skills:

- The ability to work effectively with guests of all ages and cultures; telephone-answering and computer skills; the ability and aptitude to carry on conversations, deliver personal attention, and have empathy for the guests in order to make them feel welcome and to fulfill their expectations.
- The ability and aptitude to work with co-workers to ensure a successful guest experience; cooperation and teamwork skills.
- The ability to work a varied schedule that includes nights, weekends and holidays; the ability to maintain confidentiality to guests and the company; solution-oriented skills; the ability to accept supervision willingly and ask for help when needed.

#### Common Measures of Success for First Level of CTE Program (examples of):

Students shall:

- Pass American Hotel and Lodging Educational Institute (AHLEI) year-one exam (www.https://ahlei.org).
- Wear proper uniform and maintain professional level of hygiene and appearance.
- · Demonstrate proper business etiquette and levels of decorum when dealing with the public.
- Successfully complete all year-one curriculum and participate fully in all onsite activities.
- Meet, and regularly demonstrate growth towards meeting. State Competencies.

# Potential Next Steps for Enrolled Students to Prepare for Post Secondary & Beyond (examples of):

- Pass year-one and year-two end-of-course exams.
- Successfully obtain the Certified Hospitality & Tourism Management Professional (CHTMP)
  designation.
- Demonstrate personal and career development skills by completing a career plan and/or Career Pathway Plan of Study (CPPOS).
- Engage in personal opportunities to practice, including independently obtaining internships and paid work opportunities related to this career. Students will complete a 100-hour, onsite workplace requirement as part of the program.

# Potential Next Steps ... cont'd. (examples of):

- Demonstrate readiness for college level math, writing, reading, and/or computer skills by taking the *Accuplacer* exam (placement depending on the college).
- Register for dual enrollment college credit courses (Running Start) offered related to the Lodging Management program.
- · Tour relevant college programs.
- Take the dual college credit course (Running Start) known as *TAC Math*, if available, as it may provide the opportunity to replace the first college math class associated with the major.

# Teacher Education, Multiple Levels

Program Code:

131206

Program
Description:

Teacher Education, Multiple Levels, prepares student to pursue careers in education at all levels from Pre-K to 12. Learning ranges from lesson planning to child development.

## Career-Related Core Skills & Understandings (examples of):

Students will:

- Writing:
  - Complete college level technical writing and presentations (done regularly), as well as reports and parent communication.
- Reading:
  - Read textbooks that are written at 11<sup>th</sup> grade to college level.
- · Academic Skills:
  - o Demonstrate overall skills at the college level, given post-secondary requirements.
- · Computer Skills:
  - Be fluid with the use of technology (regularly integrate technology into lessons); be open to exploring and implementing new uses.

## Career-Related Personal Qualities, Physical Attributes, & Employability Skills (examples of):

Students should have:

#### Personal Qualities:

- Patience and poise; a safety mindset; the ability to confidently speak in public and process situations quickly to meet needs of students; a focus on good hygiene and professional appearance.
- An understanding of FERPA as it applies in all aspects of the education field; a clean criminal background record to work with students.
- Physical Attributes:
  - The energy and stamina to teach for a full day; the ability to project voice and presence to communicate; the ability to physically work one-to-one with a student.
- Employability Skills:
  - The ability to interact appropriately and professionally with parents and children on a daily basis in person, via phone, or over email.
  - The ability to assess, track, record and communicate student performance in an acceptable manner.

## Common Measures of Success for First Level of CTE Program (examples of):

- Pass a Health and Safety quiz and a Child Safety and Abuse quiz.
- Demonstrate good skills in managing children's behavior as individuals and in a classroom group.
- Plan, write, and implement lessons and assessments using correct format and incorporating interpretation of data. Students shall teach at least one carefully constructed lesson to a small group of children
- Complete a week-long assessment with a child.
- · Apply skills and scripts independently in spontaneous situations with children.
- · Care for a child independently.
- Meet, and regularly demonstrate growth towards meeting, State Competencies.

- Demonstrate personal and career development skills by completing a career plan and/or Career Pathway Plan of Study (CPPOS).
- Demonstrate readiness for college level math, writing, reading, and/or computer skills by taking the *Accuplacer* exam (placement depending on the college).
- Begin preparing for the Praxis exam to get their teaching certificate. Use of notes during testing is not allowed.
- Enroll in a world language to expand employment opportunities.
- Engage in personal opportunities to practice, including independently obtaining internships and potentially paid work opportunities related to this career.
- · Register for dual enrollment Running Start credit.
- Tour relevant colleges and programs, including New Hampshire Technical Institute, Southern New Hampshire University, University of New Hampshire, Keene State University, and Plymouth State University.
- Take the dual college credit course (Running Start) known as TAC Math, if available, as it may
  provide the opportunity to replace the first college math class associated with the Teacher
  Education/Preparation major.