

So, you want a nationally certified automotive technology program?

by Skip Saurman

The year is 2007. There are 210 million cars and light trucks registered in the United States. There are only about 400,000 certified automotive professionals to keep them all in operation. Annual wages can start around \$35,000 and go as high as \$75,000 or more. Educational accountability is at an all-time high. The Carl D. Perkins Career and Technical Education Improvement Act has just been renewed, and providing “support for training programs in automotive technologies” just happens to be one of the permitted uses listed in the act.

Due to the technology of the modern automobile, a full blown bumper-to-bumper, old-time “auto shop,” consisting predominantly of male students, is no longer required or even encouraged. Whether you desire to initiate a brand-new automotive technology program, or need to greatly improve your existing program (such as national certification), this article is written to assist you in your efforts.

First, a little history lesson . . .

A critical shortage of competent automotive “mechanics” was beginning to surface in the late 1960s and early 1970s due to the technology of that time period. Some, including governmental entities, wanted a licensing structure for the automotive industry similar to journeymen electricians and plumbers in the construction industry. Expensive and complicated, to say the least.

Luckily, cool heads prevailed, and in 1972 the National Institute for Automotive Service Excellence, at that time referred to as NIASE, was established to design and implement a national voluntary certification process.

As years went by, more and more automotive repair professionals bought into

the idea, the technology in the automobile increased substantially, certification test areas expanded, and marketing efforts dictated a change to the simpler acronym, ASE, shown in white letters on a blue gear background.



Please keep in mind that we are talking about *technician* certification at this point, not program certification. For an automotive technician to become certified through ASE, a minimum of two years of actual, documented work experience must be established, as well as passing one or more of eight specialty area tests. You can go to www.ase.com for more details about all of the different automotive industry certifications that are currently available.

Fast forward to 1983. A need was recognized to structure and certify the *training* programs for these technicians, and the National Automotive Technicians Education Foundation (NATEF) was incorporated as a nonprofit element of ASE.

NATEF’s primary responsibility, assisted by business and industry, is to develop the program standards associated with quality education and training in the automotive field. These standards are reviewed and brought up to date every three years by automotive professionals and selected educational experts.

It is also necessary for a certified program to retain an effective advisory committee that reviews the program every two-and-a-half years, with an official recertification process that takes place every five years.

Now, we are talking about program certification through NATEF by ASE. So rightfully, it should be designated as ASE/NATEF certification, although



many automotive instructors simply refer to it as NATEF certification.

Their very appropriate logo is the ASE blue gear symbol within a key. If you have a need to know more about the actual certification process in detail, go to www.natef.org.

In the most simplistic terms, a person only needs two things to obtain employment in the automotive industry today: first, a good set of basic hand tools and second, either ASE certification, documented work experience or the fact that they completed an ASE/NATEF-certified automotive technology program.

In the mid-to-early 1990s, an educational need for standards was realized. Standards-based education was the buzzword, and the National Skills Standards Board (NSSB) became prominent. NATEF received a grant from the U.S. Department of Education to update the standards used for program certification. ASE and NATEF, having already developed and improved upon national standards and specific tasks required of entry-level technicians, identified and published the Applied Academics and Workplace Skills for Automobile Technicians in 1995.

This valuable document clearly identifies the mathematics, science and language arts competencies as they apply to the manual tasks that are performed throughout the automotive training program. Employment qualities, or “soft skills,” are also included.

ABOUT THE AUTHOR

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The NATEF Web site listed previously will also provide you with detailed information on this subject. Now, wouldn't it be fantastic if we could somehow get our students academic credit (even if only partial academic credit) for the integrated content in a certified automotive technology program?!

OK, so where do I start?

There are essentially four methods of automobile program certification from ASE/NATEF. With the assistance from an active advisory committee, determine which method will best suit your institution and student needs. Remember, it is the *program* that is obtaining the certification recognition and not the students — although graduation from a certified automotive technology program should provide them with the confidence and abilities to obtain personal certification.

1. **Master program certification status** — requiring a minimum of 1,080 contact hours of instruction in *all* eight automobile specialty areas, consisting of Electrical/Electronic Systems, Brakes, Suspension and Steering, Engine Performance, Engine Repair, Manual Drivetrain and Axles, Automatic Transmission/Transaxle, and Heating and Air Conditioning. Many community colleges and for-profit trade schools across the United States are master certified programs (or should be). Even though the automotive program may span three or four years, this can still be a pretty tall order for a comprehensive high school. So, please continue to read.
2. **Four core, or “stand-alone” specialty areas** — requiring a minimum of 650 contact hours of instruction in Electrical/Electronic Systems, Brakes, Suspension and Steering, and Engine Performance. This type of certification is also a prerequisite for acceptance in Automotive Youth Education Systems (AYES), a premier high-school automotive technology program with extensive support from 14 automotive manufacturers. Dealership representation is required on the program advisory committee, as is active participation in SkillsUSA. See www.ayes.org for more.
3. **Electrical/Electronic Systems and at least one other of the above-mentioned core specialty areas** — requiring the least number of contact hours (Electrical/Electronic Systems currently requires a minimum of 230 contact hours plus the hours required in the one optional area). The automotive program instructor, as in *all* methods of program certification, must be ASE certified in the specialty areas being taught (in this case, a minimum of two areas). Articulation with another ASE/NATEF certified program is a definite requirement with this method of certification.
4. In 2003, NATEF developed the **General Service Technician, or GST, program certification option**. This option is primarily focused on the four core areas, but it incorporates portions of all eight automobile specialty areas and requires that *all* specified tasks are taught within a minimum of 500 contact hours. The program instructor must be ASE certified in the four core specialty areas, and program articulation is mandatory. Many high school automotive instructors have expressed an interest in this particular certification method because the content is broader in scope than option No. 3 above, deemed

appropriate for the type of student in their program and probably already being taught.

(Note: These are concise descriptions of ASE/NATEF automobile program certification options. Lab/shop facilities, tools, equipment, curriculum, instructor update training and other issues must also be considered. Please refer to the NATEF Web site at www.natef.org, or call NATEF at 703-669-6650 for details.)

Where can I go to for help?

Megatech Corp. has developed and manufactured quality automotive training aids since 1972 and supports ASE/NATEF certification. Their trainers, which incorporate actual automotive components, are extremely reliable and provide for easy repair or replacement of parts. Student retention has been consistently observed through a method of hands-on, interactive theory — active practice with fault insertion — and relevant application.

NATEF Standard 6.15 states in part, “A student should have had instruction and practice on a specific repair task before on-vehicle service and repair work requiring that task is assigned,” insinuating the use of quality training aids. However, be aware that some other manufacturers’ simulators use 2-D graphics and LED lights. Even though students will be initially inspired, some instructors have complained of waning interest and boredom.

Megatech can assist with consultation for a new program, including diesel technology and alternative fuels technology, as well as any and all of the certification methods noted in this article. Computer interactive software and trainers have been developed for all of the ASE/NATEF specialty areas. Be sure to look at www.megatechcorp.com for more information regarding their trainers.

If funding is a major issue, Megatech can design a program in phases. An example of this situation might be an effective automotive electricity/electronics lab eventually leading into another specialty area such as Brakes or the General Service Technician program. Their close association with MATCO Tools can also provide you with the necessary basic hand tools, general lab/shop and specialty equipment needed for program certification.

The General Service Technician package is their latest initiative. Developed in conjunction with the Clark County School District in Las Vegas, it is centered around a series of automotive trainers, including a functional cutaway vehicle, that can assist in teaching up to 75 percent of the required NATEF tasks. Live vehicles may still be necessary to satisfy NATEF requirements. Of course, facilities, tools, equipment and an ASE-certified instructor along with other qualifications are still necessary to complete the certification process.

Computer software that covers all eight of the ASE/NATEF automobile specialty areas starts off the training with interesting and interactive theory introduction. Since the NATEF GST certification has a strong emphasis in the areas of Electrical/Electronic Systems and Brakes, a variation of electrical sets and numerous individual electrical trainers (as many as 10) have been included along with a power boost disc/drum brake trainer. For less than \$50,000, all of the trainers and computer software are shipped to your site in the continental United States. Megatech will provide the program instructor with dedicated training (including ASE/NATEF GST program certification assistance) in Las Vegas. Travel, lodging and meals are all covered.

Contact Megatech at 1-800-767-6342 (1-800-SOS-MEGA) to find out how they can help you and your students be successful. ●