UAS Automotive Technology

Assessment Plan

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The UAS Automotive Technology program has been evaluated and accredited by the National Automotive Technician's Education Foundation (NATEF) in all eight major repair areas. The program's curriculum, tools and equipment, facilities, and faculty have received accreditation in the following areas:

Engine Repair
Automatic Transmission/Transaxle
Manual Drivetrains and Axles
Suspension and Steering
Brakes
Electrical/Electronic Systems
Heating and Air Conditioning
Engine Performance

The assessment process is interwoven throughout the NATEF standards, and becomes an integral part of the culture for certified programs. NATEF standards that address program assessment include:

Standard 2.5 – Advisory Committee

An Advisory Committee consisting of at least five (5) members (not including school personnel) must convene at least two times a year and be utilized to provide counsel, assistance, and information from the community served by the training program. This committee should be broadly based and include former students, employed technicians, employers, and representatives for consumers' interests.

Response

The UAS Automotive Technology program maintains an Advisory Committee that meets two times per year. The committee is made up of representatives from various sectors in the community, including automotive technicians, former students, employers, consumer groups, and government agencies. The committee is consulted on a wide range of programmatic issues, including curriculum, equipment purchases, and facilities allocation. For more information, see Standard 2.5 in the white NATEF binders as well as the red "Program Advisory Committee Meeting Minutes" binder.

Standard 5.5 – Annual Follow-up

A follow-up system should be used to determine students' employment location and for feedback regarding the efficiency, effectiveness, and appropriateness of training. The follow-up procedure should be designed to assure feedback regarding needed additions to or deletions from the training curriculum, program, and tools and equipment. Follow-up of graduates employed outside the automobile industry should indicate reasons for non-automobile employment. When applicable, this information should be used to modify the training quality and/or content.

Response

Employer Surveys and Graduate Surveys are both utilized as assessment instruments by the UAS Automotive Technology program. These are used to gather information on additions or deletions that should be made to the training curriculum, program, and tools and equipment. For more information, see Standard 5.5 in the white NATEF binders. Also, see Attachments A and B of this document.

Standard 6.5 – Curriculum

All tasks have been given a priority rating. Ninety-five percent (95%) of the tasks designated as Priority 1 (P-1) must be taught in the curriculum. Eighty percent (80%) of the tasks designated as Priority 2 (P-2) must be taught in the curriculum. Fifty percent (50%) of the tasks designated as Priority 3 (P-3) must be taught in the curriculum. Additional tasks may be included to meet the needs of local employers. Additional tasks should be approved by the Advisory Committee.

Instruction on the legal aspects and responsibilities of the automobile technician in areas such as Environmental Protection Agency regulations, safety regulations, OSHA regulations, and other appropriate requirements should be included in the curriculum. Instruction and practice in filling out work order forms, ordering parts, and basic record keeping should be part of the training program.

Tools and equipment must be available to perform the tasks in each of the areas for which certification is requested.

Response

The curriculum for the UAS Automotive Technology program is based on the standards that are established by the NATEF national committee. The tasks mentioned above are listed according to repair area and are revised every three years to address changing needs in the automotive industry. All of the program's classroom and laboratory work is based on the teaching of these tasks and students are rated according to a "hands-on competency" while performing these tasks in the shop or in the workplace during their practicum experience. For more information, see Standard 6.5 in the white NATEF binders.

Standard 6.14 – Evaluation of Instruction

Instructional procedures should be evaluated in a systematic manner. This evaluation should be through regular reviews by students and the administration. Self-evaluation of instruction should also be utilized on a systematic and regular basis. This system should include input from former students and the Advisory Committee members. Instructional procedures should show responsiveness to the feedback from these evaluations.

Response

All courses within the UAS Automotive Technology program have a student evaluation that is administered at the end of each semester. Information gathered from these evaluations is then used to make improvements in the courses in subsequent semesters. A good deal of "informal" assessment also takes place, where the instructor can clearly see that the chosen mode of instruction is not working and makes changes without waiting for a student evaluation to reveal this information. For more information, see Standard 6.14 in the white NATEF binders as well as Attachment D at the end of this document.

Standard 7.5 – Replacement

An annual review process should be used to maintain up-to-date tools and equipment at industry and safety standards. Student follow-up and Advisory Committee input should be used in this process.

Response

The UAS Automotive Technology program uses Graduate Surveys, Employer Surveys, and consultation with its Program Advisory Committee to determine what equipment should be purchased or replaced, and when. For more information, see Standard 7.5 in the white NATEF binders as well as the red "Program Advisory Committee Meeting Minutes" binder.

Standard 8.11 – Facility Evaluation

The Advisory Committee should conduct an annual evaluation of the facilities to assure adequacy to meet program goals.

Response

The Program Advisory Committee has held formal evaluations of our facilities, but a great deal of this assessment is done on an informal basis. The program uses adjunct instructors that work full-time in local industry, and these individuals are a great source of feedback regarding the state of our facilities. You might say that much of the facilities assessment is done "on the run," so we don't generally wait for an annual review to get problems taken care of in this area.

Consultation also takes place with the Health and Safety department of UAS Facilities Services. For more information, see Standard 8.11 in the white NATEF binders.

NATEF Task List

The entire curriculum for the UAS Automotive Technology program is based on the NATEF task list as published in the *ASE Certification for Automobile Training Programs 2008* handbook. The task list is developed in committee by a group of industry experts and educators and is revised every three years. All programs certified by ASE are expected to incorporate the new task list into their programs when the revisions are released. Program recertification takes place every five years and an audit is done at that time to ensure that the revised task list is being used as the foundation for the program's training.

National Automotive Student Skills Standards Assessment (NA3SA) Testing

NATEF also offers a web-based testing program that is aligned with its task list. The NA3SA tests are administered here at the UAS Testing Center in the spring of each year and all program students are tested in all eight repair areas. First and second-year students all receive the same tests each year, creating an opportunity to test a student's skills after their first year of studies, then compare those results to their second-year tests and look for an improvement.

NA3SA tests are organized according to the eight (8) ASE repair areas and results for the tests are broken out according to subsections of skills within each of those repair areas. The data from these tests is used to identify weak spots in the curriculum. One example of how test data was used to enable program improvement was when all exiting students tested low on wheel alignment during our first administration in 2005. The program's wheel alignment equipment was judged to be obsolete and a funding proposal was written to replace this equipment with the latest technology. Scores have improved significantly in this area since the new equipment was put into service. See Attachment C for more information on NA3SA testing.

ASE Testing

All automotive technology program students are encouraged to take ASE (Automotive Service Excellence) tests during their course of study. ASE is recognized as the standard for automotive technology testing in the United States. Students are advised to register for tests that apply to courses they have recently completed (or are about to complete). For instance, AUTO 225 – Automotive Heating and A/C students are encouraged to take the **ASE A7 – Heating and Air Conditioning** test during that same semester.

Unfortunately, the students register for these tests on their own and only they receive the results. Information on who has passed each test is gathered on an informal basis. Generally speaking, it is rare for our students to not pass these tests.

Attachment A – Employer Surveys

UAS Automotive Technology
Southeast AK Employer Survey 2003

Please fill out the following survey and return to our office in the enclosed postage-paid envelope. The information you provide will be used to make the UAS Automotive Technology program more responsive to local industry needs.

1. Please check the one that best describes your current business:

Automotive dealership	☐
General Auto Repair Service	☐
Fleet Repair Shop	☐
Gasoline Station with Auto Repair	☐
Franchise Specialty Repair	☐
Independent Specialty Repair	☐
Auto Repair/Towing Service	☐

2. Types of repair or service in your shop (check all that apply):

Domestic vehicle service	☐	Engine electrical service	☐
Import vehicle service	☐	Engine tune-up/driveability	☐
Air conditioning service	☐	Engine repair/overhaul	☐
Airbag system service	☐	Exhaust/muffler/converter	☐
Alignment/steering service	☐	Fuel injection service	☐
Battery/electrical service	☐	Oil/filter/lube service	☐
Brake service	☐	Shock/strut/suspension service	☐
Cooling system service	☐	Tire/wheel service	☐
Emission control service	☐	Transmission/transaxle service/overhaul	☐

3. Your job title within your organization is (check all that apply):

Technician	☐
Service advisor	☐
Service manager	☐
Owner	☐

4. How many automotive technicians work for your company?

5. How many of these technicians do you consider to be apprentices?

6. Do you require your automotive technicians to have ASE certification?

   Yes □ No □ Preferred, but not necessary □

7. What **four** certifications are most useful to your business?

A1:	Engine Repair	□
A2:	Automatic Transmission Repair	□
A3:	Manual Drive Trains & Axles	□
A4:	Suspension & Steering	□
A5:	Brakes	□
A6:	Electrical/Electronic Systems	□
A7:	Heating and Air Conditioning	□
A8:	Engine Performance	□

8. How many automotive technicians do you plan to hire this year?

9. What specific kinds of training would you like to see offered by the Automotive Technology program at UAS?

10. Would you be interested in participating in an internship program with automotive technology students from UAS? If so, please give a contact name and phone number of the person we could talk to about this opportunity.

11. Do you pay for or subsidize the cost of your employee's training? If so, how much?

12. Please include one of your business cards in the envelope with the completed survey.

Thank you very much for taking the time to fill out this survey. Your input will help us create programs to better meet your needs. If you have any questions about the Automotive Technology program at UAS, please call Tony Martin at (907)465-8776.

UAS Automotive Technology
Southeast AK Employer Survey
August 2005

Please fill out the following survey and return to our office in the enclosed postage-paid envelope. The information you provide will be used to make the UAS Automotive Technology program more responsive to local industry needs.

1. What is your business approach to wheel alignment?

We do wheel alignment as part of our day-to-day operations	☐
We perform suspension and steering repair but subcontract wheel alignment to another shop	☐
We don't do suspension and steering repair or wheel alignment	☐

2. How many wheel alignment jobs pass through your shop in **one week** (whether you do it or you subcontract the job to another shop)?

More than 5	☐
1-5	☐
Less than 1 in one week	☐
None	☐

3. What brand/model of wheel alignment system do you currently use in your repair operations (if applicable)?

John Bean/Snap On (Please list model below)	☐
_____	
Hunter (Please list model below)	☐
_____	
AMMCO (Please list model below)	☐
_____	
Bear (Please list model below)	☐
_____	
Other (Please list brand and model below)	☐
_____	

4. If you were going to purchase a new wheel alignment system today, what brand/model would you buy?

John Bean/Snap On (Please list model below) ☐

_____

Hunter (Please list model below) ☐

_____

AMMCO (Please list model below) ☐

_____

Bear (Please list model below) ☐

_____

Other (Please list brand and model below) ☐

_____

5. Please comment on the reasons for your selection in Question 4 above.

6. Do you plan on hiring technician(s) during this coming year? If so, what skill areas/levels do you require?

7. Please include one of your business cards in the envelope with the completed survey.

Thank you very much for taking the time to fill out this survey. Your input will help us create programs to better meet your needs. If you have any questions about the Automotive Technology program at UAS, please call Tony Martin at (907)796-6126.

UAS Automotive Technology
Southeast AK Employer Survey
May 2007

Please fill out the following survey and return to our office in the enclosed postage-paid envelope. The information you provide will be used to make the UAS Automotive Technology program more responsive to local industry needs.

8. Do you perform any maintenance, service or repair on light duty diesel-powered vehicles?

Yes	☐
No	☐

9. Please indicate the frequency which you perform maintenance, service or repair on light duty diesel-powered vehicles.

Less than once per month	☐
Once or twice per month	☐
3-5 times per month	☐
2-4 times per week	☐
Daily	☐

10. Please classify the type of maintenance, service or repair you perform on light-duty diesel-powered vehicles. *Check all that apply*.

Quick Service (LOF, Mileage Maintenance, etc.)	☐
Engine Repair	☐
Diesel Fuel System Repair	☐
Engine Performance/Driveability Diagnosis & Repair	☐
Transmission, Clutch and Powertrain Repair	☐
Electrical/Electronic Systems Repair	☐
Other (Brakes, Suspension/Steering, HVAC, etc.)	☐

11. Please indicate your source of maintenance, service, or repair training on light duty diesel-powered vehicles. *Check all that apply.*

On-the-job Training	☐
Service Manuals or Service Information Systems	☐
Manufacturer's Training Course(s)	☐
Other _____	☐

12. Should light-duty diesel engine repair training be offered at University of Alaska Southeast?

Yes	☐
No	☐

13. If you answered YES to Question #5, what type of light-duty diesel engine repair training ought to be offered at UAS?

Non-academic credit upgrade training for current technicians	☐
Academic credit course(s) incorporated into the AAS degree program	☐
A certificate program in diesel/alternative fuels	☐
Other (please specify) _____	☐

14. Do you plan on hiring technician(s) during this coming year? If so, what skill areas/levels do you require?

15. Please include one of your business cards in the envelope with the completed survey.

Thank you very much for taking the time to fill out this survey. Your input will help us create programs to better meet your needs. If you have any questions about the Automotive Technology program at UAS, please call Tony Martin at (907)796-6126.

Attachment B – Graduate Follow-Up Survey

Name and Address Sticker Here

UAS Automotive Technology
Graduate Follow-up Survey

Please fill out the following survey and return to our office in the enclosed postage-paid envelope. The information you provide will be used to make the UAS Automotive Technology Program more responsive to local industry needs.

1. Are you currently employed in the automotive industry? Yes ☐ No ☐

2. If you are currently employed in the automotive industry, please list your employer and job title

   _____

3. Please check all ASE Automobile Certifications you have acquired:

   - ☐ A1 – Engine Repair
   - ☐ A2 – Automatic Transmission/Transaxle
   - ☐ A3 – Manual Drive Train and Axles
   - ☐ A4 – Suspension and Steering
   - ☐ A5 – Brakes
   - ☐ A6 – Electrical/Electronic Systems
   - ☐ A7 – Heating and Air Conditioning
   - ☐ A8 – Engine Performance
   - ☐ L1 – Automobile Advanced Engine Performance

4. If you are not currently employed in the automotive industry, please check reasons why:

   - ☐ Unemployed, looking for work within automotive industry
   - ☐ Unemployed, looking for work outside of the automotive industry
   - ☐ Employed, outside of the automotive industry

5. If you are employed or looking for work outside of the automotive industry, please indicate your reasons for doing so

_____
_____
_____
_____
_____

6. Please indicate your assessment of the overall **effectiveness** of the training you received from the UAS Automotive Technology program

- ☐ Not effective
- ☐ Somewhat effective
- ☐ Effective
- ☐ Very effective

Comments:

_____
_____
_____
_____

7. Please indicate your assessment of the overall **efficiency** of the training you received from the UAS Automotive Technology program

- ☐ Not efficient
- ☐ Somewhat efficient
- ☐ Efficient
- ☐ Very efficient

Comments:

_____
_____
_____
_____

8. Please note below any **additions** or **deletions** that need to be made to the UAS Automotive Technology program in the following areas:

Curriculum:

_____
_____
_____
_____

Program:

_____
_____
_____
_____

Tools and equipment:

_____
_____
_____
_____

Thank you very much for taking the time to fill out this survey. Your input will help us create programs to better meet your needs. If you have any questions about the Automotive Technology program at UAS, please call Tony Martin at (907) 796-6126.

Attachment C – National Automotive Student Skills Standards Assessment (NA3SA) Testing

Electrical/Electronic Systems (50 Questions)	Manual Drive Train and Axles (45 Questions)	Brakes (50 Questions)	Engine Performance (50 Questions)
25% F	30% F	37% F	30% F
67% P	50% F	70% P	75% P
80% P	77% P	85% P	82% P
47% F	40% F	62% P	50% F
85% P	77% P	77% P	82% P
80% P	62% P	80% P	77% P
52% P	22% F	47% F	52% P
62%	51%	65%	64%
71%	43%	71%	71%

Suspension and Steering (50 Questions)	Engine Repair (50 Questions)	Automatic Transmission and Transaxle (50 Questions)	Heating and Air Conditioning (48 Questions)
37% F	40% F	27% F	25% F
65% P	85% P	77% P	52% P
70% P	87% P	70% P	52% P
40% F	47% F	37% F	25% F
77% P	85% P	75% P	87% P
60% P	75% P	65% P	42% F
40% F	55% P	37% F	32% F
56%	68%	55%	45%
57%	71%	57%	43%

Attachment D – Student Evaluations