



2011 - 2012

Master Plan of Instruction
Automotive Collision Repair and Refinishing
I-CAR Training Alliance Program

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MISSION: Lake Technical Center's mission is to meet the educational needs of the community by offering a variety of high quality career-technical training opportunities.

No person shall, on the basis of race, color, creed, religion, sex, age, handicap, marital status, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any educational program or activity under the direction of Lake Technical Charter Board. Lake Technical Center is an Equal Opportunity Institution.

charting new directions

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LAKE TECHNICAL CENTER

Automotive Collision Repair and Refinishing

INTRODUCTION

The Automotive Collision Repair and Refinishing Program, a 1400 hour I-CAR and ASE certified program, is responsible for training individuals to attain an entry-level status in the automotive body repair industry. The program covers a broad range of instruction. An appropriate amount of time is spent in each area to thoroughly cover needed instructional material as well as to gain manipulative skills competence.

The program utilizes both theory and practical application of material to help the students gain needed knowledge and skills. Due to the increasing complexity of the construction of today's automobile, it is as important to know why a procedure is done as it is to know how it is done. Understanding how a vehicle is constructed, therefore, has an important role to play in this course of study.

Each student must successfully complete written test material on theory and related topics as well as successfully demonstrate the practical application of this information in the shop environment.

PROGRAM MISSION

The mission of the Automotive Collision Repair and Refinishing Program is to prepare students for employment in the automotive collision repair and refinishing field. It is also designed to assist those students who wish to update present skills and cross-train in other automotive areas. The program focuses on student and industry needs, and training is constantly updated by the instructor and program advisory committee to keep current with technological changes.

TEST OF ADULT BASIC EDUCATION (TABE)

According to Florida Department of Education rules, students who fail all or parts of the TABE may only retest using a different TABE version after 60 documented hours of remediation in the Applied Academics for Adult Education (AAAE) lab or three months if not attending AAAE. Students may not retake the same test version for six months. We, therefore, strongly recommend that students test early, especially for licensure programs, in order to allow time for remediation and retesting should the need arise.

Students who do not meet the minimum TABE scores set by the Florida Department of Education for their program must begin attending remediation classes in the AAAE lab prior to or at the time of enrollment in a Career and Technical Education class for at least one block a day and make acceptable progress as determined by the AAAE instructor. Students should meet state mandated TABE requirements by the time they have completed 50% of their program. Students who do not meet state mandated TABE scores may not receive a certificate of completion as per Florida Department of Education rules.

Applicants transferring TABE or CPT scores from other testing centers must do so by having an official score report sent directly to the Admissions Office prior to enrollment. Scores brought in by hand will not be accepted.

TABE scores are good for two years and must be valid at the time of enrollment. TABE scores that expire during continuous enrollment remain valid until the end of such enrollment. Under continuous enrollment, students must be enrolled at least 50% of one semester per school year and may miss no more than one consecutive semester. Continuous enrollment applies to attendance in a single program.

The required TABE exit scores for this program are: Reading 9; Math 9; and Language 9.

ADMISSION REQUIREMENTS

Applicants must be at least 16 years of age and should be academically, physically, and emotionally capable of meeting the demands of the chosen program. Applicants make initial application through the Admissions Office. A minimum skills evaluation is part of the admission process. It is highly recommended that co-enrolled and dual-enrolled students meet with the program Instructor prior to entering the program.

The Florida Legislature requires that prospective students be evaluated to determine levels of reading, math, and language skills. This evaluation helps staff and students in determining the career fields in which each student can be successful.

ESSENTIAL TRAINING TASKS

Physical Requirements

Ability to:

1. Reach
2. Exhibit a high degree of manual dexterity
3. Stoop, Crouch and/or bend
4. Exhibit a high degree of finger dexterity
5. See (near acuity)
6. Lift 50 pounds or less
7. Communicate with others in verbal and/or written form

Mental and Emotional Requirements

Ability to:

1. Work with others
2. Make decisions.
3. Cope with anger/hostility of others in a calm manner.
4. Cope with moderate to high levels of stress.
5. Cope with confrontation.
6. Cope with frustration.
7. Assist with problem resolution.
8. Demonstrate a high degree of patience.
9. Plan and organize daily activities.
10. Apply common sense understanding to carry out instructions furnished in both written and oral form.
11. Tolerate moderate noise level.
12. Measure accurately.
13. Work without close, direct supervision.
14. Work on multiple tasks and priorities.
15. Perform and complete tasks of relative complexity.
16. Perform basic mathematical operations.
17. Demonstrate mechanical skills.

GENERAL INFORMATION

Class Hours

Full-time students attend class from 8:00 AM to 2:30 PM Monday through Friday with a 30 minute lunch period. This schedule provides 6 hours of instruction each day for a total of 30 hours per five-day week, excluding holidays and school breaks as outlined in the current school calendar.

Tuition

Tuition is charged for adult students at a reasonable rate that may vary slightly from year to year and is due prior to the first day of each semester. Current fee information is available from the Admissions Office. Tuition is waived for eligible high school dual-enrolled students. Failure to pay all fees due at the time class begins will result in the student not being able to attend class and/or clinicals.

Equipment/Supplies/Books

Students are required to supply the equipment, supplies, and textbooks listed below. All students must have the following items within the first week of entering the program.

1. Five school t-shirts with program logo
2. D.A. sander
3. Two (2) sanding blocks
4. Safety glasses
5. Paint respirator
6. Dust Respirator
7. Leather gloves

8. Body filler spreads
9. Textbook and workbook – “ICAR Collision Repair and Refinishing”
10. Wet sanding block and sponge blocks
11. Collision Repair Fundamentals
12. I-CAR Professional Automotive TM

The following is a list of recommended tools and the approximate cost of each. These tools are required for employment in the Automotive Collision Repair and Refinishing field. The following is an OCP schedule for purchasing the required tools:

| <u>TOOL</u> | <u>APPROXIMATE COST</u> |
|----------------------------|-------------------------|
| OCP A | |
| 1. DA Sander | \$ 60 |
| 2. Respirator Mask | \$ 19 |
| 3. Sanding Blocks | \$ 12 |
| 4. Safety Glasses | \$ 6 |
| 5. 8” Sander | \$100 |
| 6. Straight Line Sander | \$100 |
| 7. Basic Socket Set | \$ 60 – up |
| 8. Basic Wrench Set | \$ 20 – up |
| 9. Basic Screwdriver Set | \$ 15 – up |
| 10. Basic Hammer and Dolly | \$200 |
| OCP C | |
| 1. Welding Helmet | \$ 40 – up |
| 2. Large Hammer | \$ 20 – up |
| OCP D | |
| 1. Paint Guns (optional) | \$300 – up |
| 2. Finish Sander | \$150 |
| OCP E | |
| 1. 8” Grinder | \$100 – up |
| 2. 6” Grinder | \$ 50 – up |

ATTENDANCE POLICY

In an effort to develop appropriate work ethics, Lake Tech CTE students are expected to attend all class sessions. As is expected in the workplace, when it is necessary to be absent due to illness or emergency situations, all students are to notify the instructor on or before the date of absence. The student attendance policy for each postsecondary program is consistent with industry standards.

A student who is absent for six (6) consecutive class sessions will be withdrawn from enrollment in his/her program. A student withdrawn for absenteeism must petition administration to return. Students exhibiting a pattern of consecutive absences less than six days will be subject to dismissal as determined by a School Intervention Team.

Students in non-licensure programs must have achieved a minimum of 80% attendance at the end of each quarter. Students not having met this requirement will sign an acknowledgement that they have been notified that continued absences will pose a threat to grades and program enrollment. School Intervention Team meetings will be held as necessary to attempt to alleviate issues resulting in excessive absences and to counsel the student of possible alternatives and consequences. Students who miss more than 20% of their program will not be allowed to re-enroll the next semester and must wait until the following enrollment period to re-register. Only regularly scheduled class hours will be reported for attendance.

Licensure program attendance policies are more rigid due to licensure requirements. See the individual program Master Plan of Instruction for specifics.

Campus attendance is kept via a computerized system. It is the responsibility of the student to **log in and out** in

order to receive credit for class time. This allows the school to keep accurate attendance records for the actual number of hours and minutes attended.

Tardiness

Students are expected to be in their seats promptly in the morning, after break, and after lunch. Students must notify the instructor before the start of class of any expected tardiness and an expected arrival time.

Leaving Campus During School Hours

Adult students should notify their instructor when leaving campus early. This is for the safety of students and to allow the instructor to best utilize instructional resources.

Dual-enrolled students may not leave campus without permission from a parent or guardian. These students must also notify their instructor and check out in the Admissions Office prior to leaving campus.

GRADING PROCEDURE

Lake Technical Center is a postsecondary institution designed to provide trained individuals to industry. The grading scale for this program reflects industry standards, as recommended by the advisory committee and approved by the administration of Lake Technical Center. Dual-enrolled students will follow the grading policy of the Lake County School Board for the purposes of graduation credit; however, all students must meet the program minimum grade requirements in order to receive a certificate.

Numerical grades will be given in each program area using the following scale:

| | |
|----------|-----------|
| 90 – 100 | Excellent |
| 85 – 89 | Average |
| < 85 | Failing |

Grades will be based on three areas:

1. Skill 33 1/3% of the grade
2. Knowledge 33 1/3% of the grade
3. Work Habits 33 1/3% of the grade

ACCEPTABLE DRESS

Students who attend Lake Tech shall dress in a manner appropriate for the job in which they are receiving training, including any special protective gear and professional uniforms. All clothing must be neither distracting nor offensive and be clean, neat, modest, in good repair and appropriately sized. Please refer to the Master Plans of Instruction for individual program dress code policies.

The director or designee has the final authority for determining whether or not a student's apparel conforms to the dress code. When it is determined that it does not, students will be required to change into clothing which will conform to this code or leave campus. Students may return to campus when they have changed into appropriate clothing.

Minimum Program Dress Code

1. Pants shall be worn fastened and at the waist. Pants should be dark colored, straight legged or boot cut (jeans are acceptable). Baggy pants are not permitted in any program area. Baggy pants are considered to be more than one size larger than the individual's waist. Shorts are not permitted.
2. Shoes must meet safety/industry standards. Sandals are not permitted
3. Program logo school T-shirts are to be worn.
4. Clothing should be clean and in good repair.
5. For safety reasons, shorts, loose clothing, jewelry, and loose hair below the collar are not allowed.
6. Hats are only permitted in shop areas if required by the program master plan of instruction and must be worn appropriately (i.e., ball cap bills worn forward).

Remember-Students At This Center Are Preparing For Employment In Position Where Public Relations May Be A Major Factor In One's Success. Individual Desires Cannot Always Take Precedence.

Clothing should be clean and good repair. For safety reasons, NO shorts, NO tank tops, NO sandals, NO loose clothing, NO jewelry, and NO loose hair below the collar will be allowed.

FINANCIAL AID

Policies and guidelines for the administration of all financial aid are established according to federal and state law by a financial aid committee and published in the Financial Aid Policies and Procedures Manual. Applicants complete an information form, Free Application for Federal Student Aid, and furnish documentation needed to verify eligibility.

The Financial Aid Office will assist students, where possible, with access to financial support offered by federal agencies (U.S. Department of Education – Pell Grants, Department of Veterans' Affairs), other state and local agencies and local organizations (scholarships).

Financial Aid personnel are available daily to assist students with financial aid needs and requests. The Financial Aid Coordinator is also the liaison for all local agencies.

JOB DESCRIPTIONS

Collision Repair Technician

The job of a collision repair technician is to repair damaged vehicles to a "pre-accident" condition. This is done by replacing or repairing and realigning the exterior panels made of sheet metal, plastic, or fiberglass. In addition, the technician must replace/straighten and align the structural components to bring the vehicle back to factory specifications.

To help the technician perform top quality repairs, most shops today are equipped with modern equipment, such as:

1. Body and frame machines to hold the vehicle in place while pulling the damaged areas back to specifications.
2. Measuring equipment to show the technician which part of the structure is bent and to verify when it is back to factory specifications.
3. Special welding equipment to weld structural components made up of high strength, low alloy steel.
4. Special equipment to weld plastic panels such as bumpers, interior panels and, on some newer vehicles, even fenders.

Automotive Refinish Technician

The job of the automotive refinish technician is to restore the finish of the repaired vehicle back to the factory finish.

Automobiles of today come from the factory with glamour finishes, using layers of clear coats and pearl coats to give special effects and provide extra durability. The refinish technician will be working with paint products far superior to those used a few years ago. The technician must prepare the repaired areas of the vehicle, mask off adjacent panels, prime, sand, and spray the final finish.

Advancement Opportunities

Top notch technicians may decide to specialize in some segment of automotive repair. Technicians who have certain personal characteristics such as leadership skills or ability to deal with people may find the job of team leader, shop manager, production foreman, parts manager, or estimator to be especially challenging. There is also the opportunity to open one's own business.

Opportunities for Women

Today women have an excellent opportunity in all facets of the collision repair industry including repair technician, refinish technician, estimator, parts manager, adjuster, shop manager, show owner, etc. There are more women entering the collision repair industry every year.

Areas of Specialty

The collision repair industry offers several areas of specialty. Here are just a few:

1. Suspension steering and four-wheel alignment
2. Estimating or appraising
3. Structural repair, including frame repair and unibody alignment
4. Custom paint work
5. Some shops specialize in the type of vehicles repaired

Where Technicians Work

Automotive collision repair and refinish technicians are employed by privately owned collision repair shops, new and used car dealers, franchised repair centers, and the vehicle manufacturing industry.

Hours

Most technicians work between 40 and 48 hours per week. When overtime is required, technicians usually receive additional pay. Most collision repair shops are closed on Sundays and holidays.

Outlook

The collision repair industry is getting larger each year. It is rapidly approaching a 30-billion-dollar-a-year industry, which is not directly affected by the ups and downs in the economy; therefore, it does provide steady work.

Considering the increasing cost to replace the high-tech automobiles of today along with the increase in skills needed to repair them, collision repair and refinishing should continue to be an outstanding career with even more opportunities as time goes on.

Earnings

Yearly potential may be in excess of \$50,000 depending on the skills, experience, type of work performed, and geographic location. Fringe benefits vary widely among shops. Pay may be based on an hourly wage, on a percentage of the team output, or a combination of these.

PLAN OF INSTRUCTIONAL PRACTICES

The School of Automotive Collision Repair and Refinishing curriculum at Lake Technical Center is designed as an open-entry, individualized, competency-based method of instruction.

With this instruction method, a qualified student may enter the program at any time during the school year. The student proceeds through the prepared curriculum individually and at the student's own pace, within the limits set by the program instructor.

The instructor follows the student's progress, making suggestions, as required, so the individual will gain the knowledge and experience in a minimum of time.

The student must successfully complete all of the competency requirements of the program to receive a graduation certificate.

Teaching Methods

With open-entry/open-exit, competency-based instruction, the student body typically consists of individuals at various levels in their progress through the curriculum. For this reason, a minimum of formal classroom instruction time is used in the learning process.

The curriculum is structured so that a student uses a "student learning guide" which lists reading assignments, audio-visual programs, and exercises designed to acquaint the individual with necessary information that must be known and work skills that must be performed in order to accomplish the competency. Each competency

unit will contain one or more "hands-on" projects so that the student reads the instructions, sees a demonstration using audio-visual programs, and then demonstrates the skill in the shop.

Students are encouraged to communicate with each other. More advanced students act as proctors for newer students demonstrating procedures, answering questions, and helping each other. This creates "double learning situations" where the idea is reinforced for the advanced student while the newer student gains additional knowledge and skills.

The instructor manages this process by creating learning situations and pairing the proctor with the learner. The instructor then becomes the final authority to answer unresolved questions and demonstrate procedures.

As occasions arise, the instructor may conduct impromptu "shop talks" to explain a procedure or process to a group of selected students involved in a shop project.

Teaching Aids

Audio-visual equipment in the form of overhead transparencies, DVDs, slides, cassette tapes, and records are used to research assigned areas of instruction. Crash estimating manuals, paint company color chips, frame and unibody dimension books and trade publications are used to supplement the learning activities.

Customer service projects are selected to gain working experience that would be expected to be encountered in the field. The student is required to perform various related tasks on bench projects and on customer service vehicles. Tasks are selected to parallel actual automotive refinishing industry-related work using actual tools and equipment that are encountered in the field. The student must follow accepted work rules, safety equipment, and housekeeping habits that would be encountered on the job.

To encourage proper work habits and good housekeeping, all students are required to clean up their workstations as they complete each task or project as well as participate in daily shop cleanup.

All cleanup and shop maintenance jobs are rotated among all students. Foremen are assigned to supervise the shop and tool room tasks.

Students are assigned a toolbox. Two students share one toolbox. The tools are periodically checked against a tool list made out by the co-owners at the beginning of the year. Co-owners pay for any lost tools. The school replaces worn or broken tools. Exceptions are when tools are broken because of abuse. The student who broke the item will replace these.

Students are encouraged to attend industry educational meetings, conferences, paint clinics, and seminars.

Methods of Evaluation

A pretest is given to determine entry-level knowledge and skill.

Oral and written tests during and at the end of each unit or competency are administered with checklists relating to projects and tasks.

The instructor observes and evaluates all shop projects. Whenever possible, criterion reference models and/or checklists are used to evaluate shop performance.

On a progress chart major skills (competencies) are listed for each student. As a competency is correctly mastered by the student, it is initialed by the instructor and graded.

Cooperative Education

Cooperative training is available for students and coordinated by the program instructor. Cooperative training is for students who have shown competence in program training which indicates readiness for placement in an on-the-job program. High school students participating in the cooperative job placement program must be in at least the 12th grade.

Students who do not function satisfactorily on the job may be returned to the program for additional training, or when the cooperative agreement is terminated at the request of the student, the parent, the employer, or the program instructor.

Veterans will be accepted into the program in accordance with the Department of Veterans Affairs approved program.

Additional information regarding co-op opportunities may be obtained from the program instructor.

Job Shadowing

Job shadowing experiences, or volunteer experiences, are available to students who may benefit from the experience. These experiences are designed to give the student actual hands-on experience doing a variety of related tasks. Length and type of experiences will vary. The program instructor determines appropriateness of the experience. Additional information regarding job shadowing experiences may be obtained from the program instructor.

GENERAL SCHOOL INFORMATION

Campus Safety

Basic safety standards, which will include fire drills, weather drills, equipment usage, and traffic regulations, will be covered in the program orientation and within the program as applicable. These basic safety standards will be reinforced throughout the program enrollment. Students should immediately report any safety concerns to an instructor or administrator. Please refer to the school catalog for more campus safety information.

Competency-based Instruction

Any student who enters a LTC program with previous experience or educational background that would enable the student to successfully complete a test of competence in any area may, with the permission of the instructor, complete a test to measure that competence.

Food and Drink

Food and drinks other than water are not allowed in classroom and laboratory areas. Water is permitted in these areas provided it is in a closed, covered container that will not spill if the container is tipped. This is to protect the equipment and furnishings in the classroom and laboratory areas.

Lunch

Food services are provided on the main campus by the Culinary Institute and are available during breaks and lunch. Adult students may leave the LTC campus during the scheduled 30-minute lunch break as long as they return to the program on time. High school students may not leave the LTC campus during the lunch break.

Parking Regulations

Students may park only in the south parking lot in spaces not designated as staff or customer service parking. For safety, loitering in or around vehicles once the vehicle is parked is not allowed and a 10 mph speed limit is enforced. In consideration of the neighbors and classes in session, loud music in vehicles on campus is prohibited.

Smoking

Smoking is only allowed in the designated smoking area.

OBJECTIVES

See the attached Florida Department of Education curriculum framework for objectives and competencies.

Daily Work Habits Performance Evaluation Sheet

Student: _____

Teacher: _____

Teacher: _____

Class: _____

Date: _____

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|--|
| Rating Scale – Level of Achievement |
| 10 = Excellent, 8 = Above average, 5 = Meets minimum standards, 2 = Below average, 0 = Failed work habit standards |

| To what extent an individual possesses and applies effective work habits and attitudes within a classroom and lab setting. | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
|--|----|---|---|---|---|---|---|---|---|---|---|
| 1. Clock in on time. | | | | | | | | | | | |
| 2. Has a neat appearance. | | | | | | | | | | | |
| 3. Calls in if sick before start of class. | | | | | | | | | | | |
| 4. Manages time and work load. | | | | | | | | | | | |
| 5. Focuses on task, does not squander time. | | | | | | | | | | | |
| 6. Handles responsibility in a dependable manner. | | | | | | | | | | | |
| 7. Carries out instructions. | | | | | | | | | | | |
| 8. Cleans up job site. | | | | | | | | | | | |
| 9. Returns to class at correct time after lunch. | | | | | | | | | | | |
| 10. Has an appropriate attitude for the task given. | | | | | | | | | | | |
| | | | | | | | | | | | |

Comments:
