

# LAKETECH

2011 - 2012

## Master Plan of Instruction Medium & Heavy Duty Truck & Bus Technician 1 & 2

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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.

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# **LAKE TECHNICAL CENTER**

## **Medium & Heavy Duty Truck and Bus Technician 1 & 2**

### **INTRODUCTION**

The Medium & Heavy Duty Truck and Bus Technician 1 & 2 Programs, 1050 and 750 hours respectively, train individuals to attain an entry-level position in the diesel mechanics industry. The program covers a broad range of instruction that may be found in the program outline of this master plan. An appropriate amount of time is spent in each area to thoroughly cover needed instructional material as well as to gain manipulative skills.

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 systems on today's diesel engines, it is even more important to know why a procedure is done as well as how it is done. Understanding how a system functions, therefore, has an important role to play in this program of study.

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

Prerequisites for this program should include a solid background in math and science in general with emphasis on basic math, formulas, percentiles, fraction and decimal conversion, and the use of precision measuring equipment, physics, chemistry and metallurgy. These areas are taught as part of the program of study, but it would be helpful to have these skills in advance.

Materials used are self-paced which allows students to progress at their own pace. Competencies in each area are completed after both written and performance testing.

### **PHILOSOPHY**

- We believe in education and work.
- We believe in careful assessment of abilities and interests so that all students, including those with special needs, may formulate realistic occupational goals.
- We believe in equal access to training programs and in providing comprehensive support services.
- We believe in providing an active learning environment that develops technical skills, academic skills, and effective work habits.
- We believe in continuous program and curriculum revision based on input from employers, advisory committee members, concerned citizens, students, and school personnel.
- We believe in innovative teaching methods that prepare students to meet industry standards.
- We believe in lifelong learning, responsible citizenship, and promoting individual self-worth to help our students become productive citizens in today's global society.

### **PROGRAM MISSION**

The mission of the Medium & Heavy Duty Truck and Bus Technician 1 & 2 programs are to prepare students for employment in the diesel mechanics 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. 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.

A certified State of Florida driver's license is mandatory for this program.

### **ESSENTIAL TRAINING TASK**

#### **Physical Requirements**

Ability to:

1. Maintain a high degree of manual dexterity
2. Stoop
3. Kneel
4. Lift at least 50 pounds and walk with it
5. Use voice, hearing, and sight effectively to perform jobs in the automotive field
6. Crouch or bend
7. High degree of finger dexterity
8. Crawl
9. Differentiate colors
10. Handle and finger supplies
11. Use depth perception
12. Work in an atmosphere of loud noise
13. Work in an atmosphere of changes in temperature
14. Perform repetitive tasks
15. Measure accurately
16. Work without close, direct supervision
17. Work on multiple tasks and priorities
18. Perform and complete tasks of relative complexity

## **Mental and Emotional Requirements**

Ability to:

1. Handle confrontation and frustration and assist in problem resolution
2. Interpret a variety of instructions furnished in written, oral, and diagrammatic form
3. Work with others
4. Cope with high levels of stress
5. Perform mathematical computations at a level of tenth grade or higher
6. Make fast decisions under pressure
7. Cope with anger, fear, and hostility of others in a calm manner
8. Demonstrate a high degree of patience
9. Read and understand computer and related equipment
10. Work in close or crowded areas

## **GENERAL PROGRAM INFORMATION**

### **Tuition**

Tuition is charged for adult students at a very reasonable rate, which may vary slightly from year to year. Current fee information is available from the admissions office. Tuition is waived for eligible high school 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.

### **Supplies/Needs**

Textbooks - Heavy Duty Truck Systems; Heavy Duty Truck Engines, Fuel & Computerized Management Systems

Safety Equipment

Optional Texts and Manuals

Tool Deposit

Supply Fee

### **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. The Medium & Heavy Duty Truck and Bus Technician 1 & 2 Programs consist of 1050 and 750 total hours of instruction, respectively; however, because the programs are competency based, many students are able to complete them in fewer hours.

## **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 anticipated tardiness and an expected arrival time.

## **GRADING**

Because Lake Technical Center is a postsecondary institution designed to provide trained individuals to industry, grading standards may be higher than the approved K-12 scale. The grading scale for each postsecondary program will reflect industry standards, as recommended by the advisory committee and approved by the administration of Lake Technical Center. The approved postsecondary program grading requirements must be met if the student is to receive a certificate.

An average grade of 80% is required to earn an occupational completion point or a certificate of completion. Student grades are determined through the following percentages:

- |                      |                |
|----------------------|----------------|
| 1. Skills (hands-on) | 33 1/3 percent |
| 2. Knowledge         | 33 1/3 percent |
| 3. Work Habits       | 33 1/3 percent |

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

|          |           |
|----------|-----------|
| 90 – 100 | Excellent |
| 80 – 89  | Average   |
| < 80     | Failing   |

### **Skills - Student Performance Objectives**

One-third of the grade comes from hands-on skills, as determined by the student performance objectives. Student performance objectives are based on criteria that have been identified for each of the competencies listed in the Florida Curriculum Frameworks and Student Performance Standards (attached). Students are given an overall rating for the competency. The ratings are as follows:

5. The student can perform this skill without supervision and with initiative and adaptability to problem situations.
4. The student can perform this skill satisfactorily without assistance or supervision.
3. The student can perform this skill satisfactorily but requires some assistance and/or supervision.
2. The student can perform parts of this skill satisfactorily, but requires considerable assistance and/or supervision.
1. The student cannot perform this skill even with constant supervision.

Students who score below a three (3) on the Performance Test will have the opportunity to repeat the learning activities, practice the preparation again and retake the Performance Test.

### **Knowledge**

One-third of the grade comes from written tests. The instructor will give knowledge tests at the completion of a chapter or assignment. The tests will be on the material covered. Students must achieve an 80% or better on each test. Students are given the opportunity to re-study and re-take the knowledge test if necessary.

## **Work Habits**

One-third of the grade comes from the Work Habits Assessment Form, which includes:

1. Attendance: The number of days you attend class each week
2. Appearance: Student must be in uniform each day and while on campus
3. Punctuality: Being on time to class in the morning, and after break and lunch; calling in when late
4. Cooperation: Working well with others, making decisions, coping with frustration, anger and hostility of others in a calm manner
5. Productivity: Following directions; coping with moderate to high levels of stress; staying on task and working without close, direct supervision; taking proper care of tools; following safety standards
6. Interpersonal Relations: Coping with confrontation, assisting in problem resolution; demonstrating self-control; accepting constructive criticism

## **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).

## **FINANCIAL SERVICES**

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. More information on the application process may be obtained in the Financial Aid Office.

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 DESCRIPTION**

A diesel service technician will be required to diagnose problems and take correct steps to fix these problems. Technicians will need to fill out work orders, talk to customers, order parts, and use test equipment.

The time allotted for each block of study varies with the needs of the area and the students and can be found in the program outline of this master plan.

## **PLAN OF INSTRUCTIONAL PRACTICES**

### **Teaching Methods**

Material used is self-paced and competency based. Students proceed at their own pace with written, audio-visual, and hands-on training. They are tested periodically with written and practical testing. Practical shop experiences are designed to enhance and reinforce the theories involved as well as to develop manipulative skill and good work and safety practices.

Teaching aids utilizing slides, transparencies, recordings, DVDs, records, etc., are used to a great extent throughout all instruction. Wall charts, specification charts, and other reference materials are on constant display throughout the classroom and laboratory.

A great deal of equipment must be utilized for "hands-on" skill requirements. Test equipment such as ignition scopes, brake equipment, compression gauges, electronic test equipment, and a chassis dynamometer are used so that the students will acquire rapport in working with such equipment and will have a basis for future troubleshooting requirements.

Materials are reviewed and updated periodically to keep them as current and as relevant as possible.

Students are made responsible for all laboratory requirements such as maintaining tools, equipment, and facilities, writing repair orders, tool room management, and cleanup of shop areas.

### **Cooperative Education**

Cooperative training is available for students and is coordinated by the program instructor. Cooperative training is for students who have completed at least 50% of the program competencies. High school students participating in the cooperative job placement program must be in at least the 12<sup>th</sup> 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 Veterans Administration approved program.

Additional information regarding coop 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 automotive 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, lockdowns, 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 in Program Areas**

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.

### **Leaving Campus During School Hours**

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

### **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.

I have received, read and understand all policies and procedures in the 2010-11 Medium & Heavy Duty Truck and Bus Technician I & II Master Plan of Instruction and agree to abide by them.

Student Signature\_\_\_\_\_

Date\_\_\_\_\_