

MOBILE ELECTRONICS/1 (90 Hours)

Course No.: 72-55-80

COMPETENCY CHECKLIST

Student Name _____

Teacher Name _____ School Site _____

Start Date _____ Completion Date _____ Certificate Date _____

Teacher Signature _____ Student Signature _____

(Signatures verify completion of course competencies)

A. ORIENTATION AND SAFETY (4 hrs)

- _____ 1. Scope and purpose of course
- _____ 2. Overall course content
- _____ 3. Classroom policies and procedures
- _____ 4. Occupations available in industry sector
- _____ 5. Promoting gender equity & non-traditional
- _____ 6. EPA impact on industry sector practices
- _____ 7. Hazardous materials removal/EPA standards
- _____ 8. CAL/OSHA laws & mobile electronics techs
- _____ 9. MSDS applied to mobile electronics industry
- _____ 10. Class/work: first aid/emergency procedures
- _____ 11. Individual responsibility for safe work place
- _____ 12. Pass safety test with 100% accuracy

B. TRADE MATHEMATICS (5 hrs)

- _____ 1. Application of math in electronics work
- _____ 2. Problem-solving involving whole numbers
- _____ 3. Problem-solving involving fractions
- _____ 4. Problem-solving involving decimals
- _____ 5. Changing fractions to decimals
- _____ 6. Changing decimals to fractions
- _____ 7. English system of measuring length
- _____ 8. English system of measuring weight
- _____ 9. English system to measure volume/capacity
- _____ 10. Problem-solving for measuring problems
- _____ 11. Measure w/English system tools of trade
- _____ 12. Metric units in powers of ten
- _____ 13. Convert English numbering system to metric
- _____ 14. Convert metric to English numbering system
- _____ 15. Calculate square roots of regular numbers
- _____ 16. Problem-solving: geometric problems
- _____ 17. Problem-solving: algebraic problems
- _____ 18. Problem-solving: percentages
- _____ 19. Interpreting graphs
- _____ 20. Converting decimals to binary numbers

_____ 21. Converting binary numbers to decimals

C. RESOURCE MANAGEMENT (1 hr)

- _____ 1. Define terms related to resource management
- _____ 2. Managing resources in electronics business
- _____ 3. Examples of effective management
- _____ 4. Benefits of effective resource management
- _____ 5. Economic/environmental benefits & liabilities

D. ELECTRONIC PRINCIPLES (10 hrs)

- _____ 1. Define listed terms related to topic
- _____ 2. Calculation of Ohm's Law equations
- _____ 3. Features/functions of listed items/components
- _____ 4. Demo listed techniques related to topic

E. TESTING EQUIPMENT (5 hrs)

- _____ 1. Demo use/maintenance/storage of equipment
- _____ 2. Demo listed testing and techniques

F. BASIC AUTO ELECTRICITY (10 hrs)

- _____ 1. Comparing AC to DC
- _____ 2. Electrical systems found in cars
- _____ 3. Electrical circuits and their components
- _____ 4. How electricity can be generated
- _____ 5. Operation of charging systems
- _____ 6. Features/functions of auto storage battery
- _____ 7. Test an automotive storage battery
- _____ 8. Function of fuses
- _____ 9. Function of relays
- _____ 10. How EMI causes components to malfunction

G. CAR AUDIO AND VIDEO (25 hrs)

- _____ 1. Define listed terms related to topic
- _____ 2. Identify car audio & video systems
- _____ 3. Demo listed audio & video installations

H. ANTENNAS AND SPEAKERS (15 hrs)

- _____ 1. Features/functions of components
- _____ 2. Discuss antennae/speaker installation
- _____ 3. Demo listed techniques related to topic

I. ENCLOSURE DESIGN (10 hrs)

- _____ 1. Define fabrication
- _____ 2. Specifications/functions of listed items
- _____ 3. Demo enclosure design techniques

J. EMPLOYABILITY SKILLS (5 hrs)

- _____ 1. Discuss list of employer requirements
- _____ 2. Identify potential employers
- _____ 3. Electronic social networking in job search
- _____ 4. Design sample resumes
- _____ 5. Legible/complete/accurate job applications
- _____ 6. Common mistakes made on job applications
- _____ 7. Complete sample job application correctly
- _____ 8. Enthusiasm on job
- _____ 9. Appearance on job
- _____ 10. Continuous upgrading of job skills
- _____ 11. Customer service to build businesses
- _____ 12. Appropriate interview techniques
- _____ 13. Materials for a successful interview
- _____ 14. Appropriate follow-up procedures