



**FORT LEONARD WOOD, MO  
NONCOMMISSIONED OFFICERS ACADEMY  
SYLLABUS FOR 91L30  
ADVANCED LEADER COURSE**



# **CONSTRUCTION EQUIPMENT REPAIRER**

## **Purpose:**

The Resident MOS 91L30 Senior Construction Equipment Repairer Course provides Ordnance Non-Commissioned Officers (NCOs) with common leader and skill level 3 technical training required to perform duties as a Senior Construction Equipment Repairer.

## **Course Scope:**

- 47.4 hours of Common Logistics training MOS specific training;
- 12.7 hours of construction equipment repair fundamentals;
- 45.8 hours of construction equipment repair;
- 34.3 hours of construction equipment repair performance evaluation;
- 40.0 hours of automotive air conditioning;
- 40.0 hours of welding and cutting familiarization.
- 31.8 hours of maintenance management.

Study assignments are conducted on the U.S. Army Engineer School Blackboard and consist of managing a maintenance facility safety program; establishing a maintenance facility publications library; establishing maintenance facilities; managing tool control procedures; managing key control procedures; managing the TMDE Calibration Program; supervising maintenance operations; and Ordnance Corps history. Plus, a study assignment is conducted on the U.S. Army Combat Readiness Center Blackboard and consists of the Commander's Safety Course.

11.5 hours for Mandatory Training

## **Course Prerequisites:**

1. Upon enrollment, all students must meet the standards prescribed by AR 350-1, AR 600-9, and DA PAM 611-21. (Note: These prerequisites may not be amended by local requirements.)
2. Active duty students must have a minimum of twelve months remaining on their current enlistment.
3. All qualified Soldiers must be enrolled in the Senior Construction Equipment Repairer Course in a regular scheduled training status when approved by their unit commander.
4. Prior to attending, Soldiers over 40 years of age must complete a medical screening at their local installation, and then hand carry a copy of the medical screening report to the Chief, Senior Construction Equipment Repairer Course (ALC).
5. It is a training requirement to have the ability to logon to the Fort Leonard Wood network to



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**Security Clearance:** Unclassified

**Course Length–Weeks:** 8      **Days:** 0      **Hours:** 323

**Class Sizes – Optimum:** 16    **Min:** 4    **Max:** 16

## **Administrative Time:**

**Module: A / 001** 47.4

**Title:** Common Logistics

## **Academic Time:**

**Module: B / 001** 92.8

**Title:** Construction Equipment Repair

**Module: C / 001** 40.0

**Title:** Automotive Air Conditioning

**Module: D / 001** 40.0

**Title:** Welding & Cutting Familiarization

**Module: E / 001** 31.8

**Title:** Maintenance Management

**Module: F / 001** 31.0

**Title:** Administrative Time

**Module: G / 001** 40.0

**Title:** GCSS-Army



# CONSTRUCTION EQUIPMENT REPAIRER



**Module:** Module-A

**Title:** Common Logistics

**Purpose:** This Module is your Basic Knowledge Basis Things you need to Do as A Ordnance Non-Commissioned Officer.

**Remarks:** None

## **Technique(s) of Delivery: Hours**

Large Group Instruction 0.7

Practical Exercise (Written) 2.9

Small Group Instruction 32.9

Practical Exercise (Hands-On) 10.9

## **Hours**

47.4

**Security Clearance:** Unclassified

**Lesson Title:** Apply Critical Thinking as a Junior Leader

**References:** TC 2-33.4 INTELLIGENCE ANALYSIS

**Lesson Title:** Military Decision Making Process (MDMP)

**References:** ADP 5-0 The Operations Process, ATTP 5-0.1 Commander and Staff Officer Guide

**Lesson Title:** Military History for the NCOs in the Profession of Arms

**References:** ADP 1 (Change 001) The Army, ADP 3-0 Unified Land Operations, AR 870-5 Military History: Responsibilities, Policies, and Procedures, ATTP 5-0.1 Commander and Staff Officer Guide

**Lesson Title:** Effects of Sexual Harassment / Sexual Assault on the Army Profession

**References:** None

**Lesson Title:** Resilience Training for Leaders (ALC)

**References:** FM 3-21.75 (FM 21-75) The Warrior Ethos and Soldier Combat Skills, FM 6-22 (FM 22-100) Army Leadership Competent, Confident, And Agile, FM 6-22.5 Combat And Operational Stress Control Manual For Leaders And Soldiers

**Lesson Title:** Conduct a Military Information Briefing

**References:** None

**Lesson Title:** Write a NCOER

**References:** ADRP 6-22 Army Leadership, AR 25-50 Preparing and Managing Correspondence, AR 350-1 Army Training and Leader Development, AR 40-501 Standards of Medical Fitness, AR 600-20 Army Command Policy, AR 623-3 Evaluation Reporting System, DA FORM 2166-8 Noncommissioned Officer Evaluation Report, DA FORM 2166-8-1 Noncommissioned Officer Counseling Checklist/record, FM 7-22 Army Physical Readiness Training, PAM 623-3 Evaluation Reporting System

**Lesson Title:** Suicide Prevention

**References:** PAM 600-70 US ARMY Guide to the Prevention of Suicide and Self-Destructive Behavior

**Lesson Title:** Leader Development

**References:** ADP 7-0 Training Units and Developing Leaders, ADRP 6-22 Army Leadership, ADRP 7-0 Training Units and Developing Leaders, AR 600-20 Army Command Policy, FM 6-22 Army Leadership, FM 7-22.7 The Army Noncommissioned Officer Guide, PAM 600-25 US Army Noncommissioned Officer Professional Development Guide

**Lesson Title:** Fundamentals of Mission Command

**References:** ADP 3-0 Unified Land Operations, ADP 6-0 Mission Command, ADRP 3-0 Unified Land Operations, ADRP 6-0 Mission Command



# CONSTRUCTION EQUIPMENT REPAIRER



**Module:** Module-B

**Title:** Construction Equipment Repair

**Purpose:** This Module will test your Basic understanding of Theory Of Operations and Troubleshooting Skills

**Remarks:** None

**Technique(s) of Delivery:**

Large Group Instruction 15.4

Practical Exercise (Hands-On) 45.1

Individual/Timed 32.3

**Hours**

92.8

**Security Clearance:** Unclassified

**Lesson Title:** Construction Equipment Repair Fundamentals, Construction Equipment Repair, Construction Equipment Repair Performance Evaluation

**References:** 29 CFR 1910.1200, Hazard Communication, 29 CFR 1910.132 29 CFR 1910.132 Personnel Protective Equipment, 29 CFR 1910.133 Eye and Face Protection, 29 CFR 1910.136 Foot Protection, 29 CFR 1910.138 Hand Protection, 29 CFR 1910.147 The Control of Hazardous Energy (Lockout/Tagout), 29 CFR 1910.95 Occupationnel Noise Exposure, AR 385-10 The Army Safety Program, EM 385-1-1 Safety and Health Requirements., FM 3-34.5 Environmental Considerations, FM 5-19 Composite Risk Management, FM 5-499 Hydraulics, TC 9-60 Communications-Electronics Fundamentals, Basic Principles of Alternating Current and Direct Current., TM 11-6625-3052-14 Operators, Unit, Direct Support And General Support Maintenance Manual For Digital Multi meter AN/PSM-45, TM 9-4910-783-13&P Operator's, Unit, And Direct Support Maintenance Manual TM 9-4940-468-13 Operator's, Unit, and Direct Support Maintenance Manual for Tool Outfit, Hydraulic Systems Test and Repair Unit (HSTRU), TM 9-4940-568-10 OPERATORS Maintenance Manual For Forward Repair System, TM 9-4940-568-23-1 Field Maintenance Manual for Forward Maintenance Assembly, TM 9-6625-2301-14&P Interactive Electronic Technical Manual (IETM) For Operating, TM 9-8000 Principles of Automotive Vehicles.



# CONSTRUCTION EQUIPMENT REPAIRER



**Module:** Module C

**Title:** Automotive Air Conditioning

**Purpose:** This Module will test your understanding of the Refrigeration Cycle, components, Troubleshooting, and Understanding of the 609 Certification.

**Remarks:** None

**Technique(s) of Delivery:**

Large Group Instruction 39.0

Demonstrator 1.0

**Hours**

40.0

**Security Clearance:** Unclassified

**Lesson Title:** Heat and Heat Transfer, Pressure and Pressure Measurement, Basic Refrigeration Cycle, Section 609 of the Clean Air Act

**References:** 29 CFR 1910.1200 Hazard Communication, 40 CFR Protection of the Environment, AR 200-1 Environmental Protection And Enhancement, AR 385-10 The Army Safety Program, EM 385-1-1 Safety and Health Requirements, FM 3-100.4 Environmental Considerations in Military Operations, FM 3-34.5 Environmental Considerations, FM 5-19 Composite Risk Management, TC 3-34.489 The Soldier and the Environment.

**Module:** Module D

**Title:** Welding and Cutting Familiarization

**Purpose:** This module provides instruction on Welding and Cutting Operations. The Module concludes with a hands on training.

**Remarks:** None

**Technique(s) of Delivery:**

Introduction 0.2

Large Group Instruction 8.0 (CO)

Practical Exercise (Hands-On) 29.0,

Large Group Instruction 2.6 (DM)

Demonstration

Summary 0.2

**Hours**

40.0

**Security Clearance:** Unclassified

**Lesson Title:** Welding and Cutting Familiarization

**References:** AR 385-10 The Army Safety Program, EM 385-1-1 Safety and Health Requirements., FM 3-34.5 Environmental Considerations, FM 5-19 Composite Risk Management, TC 9-237 Operators Circular Welding Theory And Application, TM 9-4940-568-10 Operators Maintenance Manual For Forward Repair System



# CONSTRUCTION EQUIPMENT REPAIRER



**Module:** Module E

**Title:** Maintenance Management

**Purpose:** This module provides instruction on Maintenance Management, Designing an SOP, Understanding and developing maintenance work load and understanding A Battle Damaged Recovery Plan. The Module concludes with a written examination.

**Remarks:** None

## **Technique(s) of Delivery:**

Practical Exercise (Written) 9.9

Small Group Instruction 21.9

## **Hours**

31.8

**Security Clearance:** Unclassified

**Lesson Title:** Develop a Battle Damage Recovery Plan, Essentials of Army Maintenance Management Programs, Supervise Maintenance Work Load, Develop an SOP

**References:** 29 CFR 1910 Occupational Safety and Health Standards

29 CFR 1910.132 Personnel Protective Equipment – General Requirements 29 CFR 1910.144 Code of Federal Regulations: Safety Color Code for Marking Physical Hazards, 29 CFR 1910.2100 Occupational Safety and Health Standards, AR 190-11 Physical Security of Arms, Ammunition and Explosives, AR 190-13 The Army Physical Security Program, AR 190-16 PHYSICAL SECURITY, AR 190-51 SECURITY OF UNCLASSIFIED ARMY PROPERTY, AR 200-1 ENVIRONMENTAL PROTECTION AND ENHANCEMENT, AR 25-30 THE ARMY PUBLISHING PROGRAM, AR 385-10 The Army Safety Program, AR 385-40 Accident Reporting and Records, AR 750-1 Army Materiel Maintenance Policy, AR 750-43 Army Test, Measurement, and Diagnostic Equipment, ATTP 3-39.32 Physical Security, ATTP 4-33 Maintenance Operations, CFR 29 Labor, Parts, CFR 29, Hazardous Waste Operations and Emergency Response, CFR 49 SUBCHAPTER B, Hazardous Materials and Transportation Safety, DA FORM 2806-1-R PHYSICAL SECURITY INSPECTION REPORT, DA PAM 25-33 User's Guide for Army Publications and Forms, DA PAM 385-1 Small Unit Safety Officer/NCO Guide, DA PAM 385-10 Army Safety Program, DA PAM 750-1 Commanders' Maintenance Handbook, DA PAM 750-8 The Army Maintenance Management System (TAMMS) Users Manual, DD FORM 2272 DOD OCCUPATIONAL SAFETY AND HEALTH PROTECTION PROGRAM, DD FORM 2357 HAZARDOUS COMPONENT SAFETY DATA STATEMENT, DD FORM 2637 PHYSICAL SECURITY EVALUATION GUIDE, EPA GUIDE EPA Guide. Standard Operating Safety Guides, FM 3-34.5 Environmental Considerations, FORSCOM REG 385-1 FORSCOM Safety Program, PAM 385-1 Small Unit Safety Officer/NCO Guide, PAM 385-10 ARMY SAFETY PROGRAM PAM 750-1 COMMANDERS' MAINTENANCE HANDBOOK TB 385-10 SAFETY MANUAL FOR OPERATING AND MAINTENANCE PERSONNEL TB 385-4 SAFETY REQUIREMENTS FOR MAINTENANCE OF ELECTRICAL AND ELECTRONIC EQUIPMENT TB 43-0134 BATTERY DISPOSITION AND DISPOSAL TB 43-0142 SAFETY INSPECTION AND TESTING OF LIFTING DEVICES, TB 43-0156 SAFETY INSPECTION AND OPERATION OF STAND, VEHICLE SUPPORT, TB 43-0211 Army Oil Analysis Program, TB 43-180 Technical Bulletin Calibration and Repair Requirements for the Maintenance of Army Materiel



# CONSTRUCTION EQUIPMENT REPAIRER



## **Module: Module F**

**Title:** Administrative Time

**Purpose:** The purpose of this module is to get Soldiers in processed, settled in and making sure all required administrative documents are completed and all necessary references, training aids are issued to each student.

**Remarks:** None

### **Technique(s) of Delivery:**

Small Group Instruction (SGI) (SG)

### **Hours**

31.0

**Security Clearance:** Unclassified

## **Module: Module G**

**Title:** GCSS-Army

**Purpose:** This module provides instruction on GCSS-A and it how operates. This module provides simulations and interactive multi media software. The module ends with an examination for certification purposes and to test is Students understand the system

**Remarks:** None

### **Technique(s) of Delivery:**

Small Group Instruction 31.6

Practical Exercise (Hands-On) 8.4

### **Hours**

40.0

**Security Clearance:** Unclassified

**Lesson Title:** Introduction to the GCSS Plant Maintenance, Administer Personnel Access in a Force Element in GCSS, Manage Equipment using the Equipment Situation Report in GCSS, Administer Work Order Notification in GCSS, Maintain Weapon System Configuration in GCSS, Maintain Equipment Configuration Class IX Component in GCSS, Maintain Shop Stock in GCSS, Maintain Bench Stock in GCSS, Manage Returns of Material to the Supply Support Activity within GCSS, Maintain Equipment Maintenance Plans in GCSS, Administer Equipment Dispatches in GCSS, Analyze Logistics Management Reports in GCSS.

**References:** None



# **CONSTRUCTION EQUIPMENT REPAIRER**



## **Written Examinations**

**Leadership Examination**  
**Maintenance Management Examination**  
**Automotive Air Conditioning Examination**  
**GCSS-A Examination**

## **Hands-on Examinations**

**Construction Equipment Repair**  
**Automotive Air Conditioning**

## **Evaluations**

**APFT**  
**PRT Instruction**  
**Operational Environment Brief**  
**Student Led Discussion (2)**  
**Ordnance History Brief**  
**In Ranks Inspection**  
**APA Essay**  
**Formal Memorandum (2)**  
**Garrison Leadership**