

**ENGINEER SENIOR LEADER COURSE
SYLLABUS FOR 12N40
CONSTRUCTION EQUIPMENT SUPERVISOR**

I. INTRODUCTION

The 12N SLC course is a 6 week USAES course taught at the Maneuver Support Center of Excellence NCO Academy. It employs classroom instruction using the Small Group process technique and Small Group Instruction (SGI) with practical applications, performance evaluations, and testing.

II. LEARNING OUTCOMES

Upon successful completion of this course, students will be able to do the following:

- A. Extract the critical information from the bridge reconnaissance reports. Determine (if applicable) the moment, shear, width, deck, and final bridge classification to within plus or minus 3 tons for the following bridges: timber or steel stringer with a timber deck, steel stringer bridge with a concrete deck, concrete T-beam with asphalt wearing surface, reinforced concrete-slab with asphalt wearing surface and the masonry arch.
- B. Develop an activities list, a logic diagram, and an early start schedule in accordance with (IAW) FM 5-412. Calculate interfering float, total float, and free float IAW FM 5-412. Determine the project critical path IAW FM 5-412.
- C. Resource constrain the early start schedule in accordance with (IAW) FM 5-412.
- D. Determined the capabilities and limitations of Microsoft Project software.
- E. Plan a construction project using TCMS.

III. INSTRUCTIONAL MATERIALS

The instructional materials identified for this course will be viewable through blackboard once access has been granted.

IV. COURSE REQUIREMENTS

- A. Reading Assignments:
Reading assignments will be given frequently. The material is to be carefully studied in preparation for class discussion.

- B. Papers:

Several essays will be written during the course using The American Psychological Association (APA) format. Subjects will be assigned by the instructor.

V. EXAMINATIONS

An examination will be given upon completion of following Terminal Learning Objectives:

- a. Calculate the Rapid Field Classification of a Fixed Bridge
- b. Resource Constrain a Project

VI. PERFORMANCE ORIENTED ASSESSMENTS (POAs)

All POAs identified for this course will be viewable through blackboard, once access has been granted.

Students will be evaluated on the following POAs:

- A. Leadership In A Garrison Environment
- B. In-Ranks Inspection
- C. American Psychological Association (APA) Written Communication
- D. Student Led Discussion
- E. Formal Memorandum
- F. Contribution To Group Work
- G. Army Physical Readiness Training

VII. NOTES AND ADDITIONAL INSTRUCTIONS FROM COURSE INSTRUCTOR

- A. Students will be participating in a Warfighting Exercise. This exercise will require students to understand and apply the Military Decision Making Process (MDMP). It is also recommended to students know how to operate Command Post of the Future (CPOF).
- B. Cellular phones and other Electronic Devices will be turned off while the student is in the classroom.

VIII. COURSE OUTLINE

Senior Horizontal Construction Supervisor 12N40 (5 Weeks, 1 Day)

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4

5

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Common Engineer
(33.0 hours)

- Calculate the Rapid Calculation of a Fixed Bridge
- Manage CREW Systems
- Establish the Common Operational Picture
- Plan Unit Movement at Company Level
- Plan for the Integration of CIED Assets in a COIN Environment
- Respond to an Improvised Explosive Device at the Company Level
- Apply Pattern Analysis Products to Support CIED Operations
- Apply Predictive Analysis to Support CIED Operations
- Calculate the Rapid Classification of a Fixed Bridge
- Military Load Classification Examination

MOS Specific Training
(83.0 hours)

- Manage a Horizontal Construction Project
- Resource Constrain a Project
- Resource Constrain a Project Examination
- Digital Training Phase 1 (CPOF)
- Digital Training Phase 2 (MDMP)

Situational Training
Exercise
(72 hours)

- Situational Training Exercise

Mandatory Training

(21.0 hours)

- Military History
- Ethical Reasoning
- COE Lessons Learned
- AR 350-1 Training
 - SHARP
 - MRT
 - ASAP

Course trains senior engineer noncommissioned officers capable of battle analysis, ethical decision making, common leader, common engineer, and horizontal construction skills training which supports engineer construction on the modern battlefield.

U.S. ARMY