

**ENGINEER SENIOR LEADER COURSE  
SYLLABUS FOR 12B40  
COMBAT ENGINEER**

**I. INTRODUCTION**

The 12B/C SLC course is an 8 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. Advise Supported Commander of Engineer Capabilities
- B. Determine Logistical Requirements for Bunkers and Shelters
- C. Determine the Rapid Field Classification of a Fixed Bridge
- D. Determine Bailey Bridge Logistical Requirements
- E. Plan the Construction of an Improved Ribbon Bridge
- F. Plan the Construction of an Improved Ribbon Raft
- G. Determine Float Bridge Anchorage System Requirements
- H. Employ Military Graphics and Overlays
- I. Conduct Contemporary Operational Environment Analysis
- J. Conduct Route Sweep/Clearance Operations
- K. Conduct an Offensive Operations (JANUS)
- L. Army Battle Command System Overview

**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:
- B. Reading assignments will be given frequently. The material is to be carefully studied in preparation for class discussion.
- C. 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. General Engineering Examination
- B. Complete Military Load Classification Examination
- C. Fixed Bridge Examination
- D. Float Bridge Examination
- E. Tactics Examination

## **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:

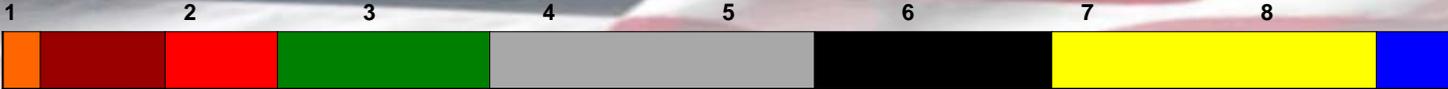
- A. Leadership In A Garrison Environment
- B. In-Ranks Inspection
- C. American Psychological Association (APA) Written Communication
- D. Student Led Discussion
- E. Formal Memorandum
- F. Contribution To Group Work
- G. Army Physical Readiness Training

## **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

# Combat Engineer 12B/C40 (8 Weeks)



**General Engineering**  
(8 hours)

- Advise Supported Commander of Engineer Capabilities
- Plan the Employment of Mine Delivery Systems

**Military Load Class**  
(19 hours)

- Determine the Rapid Field Classification of a Fixed Bridge
- Complete Military Load Classification Examination

**Float Bridging**  
(12.5 hours)

- Plan the Construction of an Improved Ribbon Bridge
- Plan the Construction of an Improved Ribbon Raft
- Determine Float Bridge Anchorage System Requirements
- Float Bridging Examination

**Battle Command Systems**  
(48 hours)

- Employ Terrain Visualization Software Falcon View
- Army Battle Command System Overview v6.4
- Conduct Maneuver Control System – Light (MCS-L) Operations
- Prepare a Message Using a Mail Application
- Operate the Net Meeting Application
- Develop a Unit Task Organization (UTO) and Enemy Order of Battle (OB)
- Perform Mapping Operations
- Perform Overlay Management
- Conduct Planning Operations
- End of Training Evaluation for MCS Workstation

**Combined Arms**  
(73 hours)

- Equipment Draw
- Situational Training Exercise
- Redeployment/Refit to Fight

**Combat Engineering**  
(19 hours)

- Supervise Engineer Demolition Mission Planning
- Determine Logistical Requirements for Non-Explosive Anti-Vehicular Obstacle
- Determine Logistical Requirements for Bunkers and Shelters
- Supervise Engineer Support to Engagement Area Development
- General Engineering Examination

**Fixed Bridging**  
(26 hours)

- Determine Bailey Bridge Logistical Requirements
- Inspect Fixed Bridge Maintenance
- Overview of the Mabey Logistical Support Bridge
- Design a Mabey Logistical Support Bridge
- Supervise Construction of a Mabey Logistical Support Bridge
- Fixed Bridge Examination

**Tactics**  
(68 hours)

- Employ Military Graphics and Overlays
- Conduct Contemporary Operational Environment Analysis
- Determine Unit of Action Capabilities
- Produce Plans, orders and Annexes
- Obtain Combat Service Support
- Conduct Route Sweep/Clearance Operations
- Plan River Crossing Operations
- Provide Engineer Support to Offensive Operations
- Conduct an Offensive Operations (JANUS)
- Tactics Examination

**Mandatory Training**  
(21 hours)

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

**Course trains senior noncommissioned officers capable of training, supervising and managing engineer platoons in operations involving assured mobility, counter mobility, and survivability on the modern battlefield.**