



FORT LEONARD WOOD, MO
NONCOMMISSIONED OFFICERS ACADEMY
SYLLABUS FOR 12C30
ADVANCED LEADER COURSE



BRIDGE CREWMEMBER ALC

Purpose:

To train Multi Role Bridge Company section sergeants to lead, train and direct subordinates to maintain, operate and employ weapons and equipment, including force protection through the use of risk management.

Course Scope:

Students will demonstrate proficiency in demolitions, reconnaissance, fixed and float bridging, offensive and defensive operations

Course Prerequisites:

Active Army or Reserve Component enlisted personnel selected by DA (Active Army) or recommended by unit Commander (Reserve Component). Qualified in MOS 12C. Meets requirements outlined in AR 350-1 (para 3-8) and DA Pam 611-21. All soldiers must have successfully completed the Basic Leader Course (BLC) at least six months before attending this course.



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Security Clearance: Unclassified

Course Length–Weeks: 6 **Days:** 0 **Hours:** 261

Class Sizes – Optimum: 32 **Min:** 24 **Max:** 32

Administrative Time:

Module: A / 001 1.0
Title: Mandatory Training

Academic Time:

Module: B / 001 35.5
Title: Demolitions

Module: C / 001 32.7
Title: Reconnaissance

Module: D / 001 35.7
Title: Fixed Bridging



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Module: E / 001 19.3

Title: Float Bridging

Module: F / 001 11.0

Title: Explosive Hazards

Module: G / 001 77.6

Title: Combined Arms/Tactical Training

Module: H / 001 19.2

Title: Combat Tactics

Module: I / 001 28

Title: Administrative

Total: 260



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Module: A / 1

Title: Mandatory Training

Purpose: The purpose of this module is to get Soldiers in-processed and to ensure 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

1.0

Security Clearance: Unclassified

Module: B / 1

Title: Demolitions

Purpose: This module provides instruction on how to calculate timber-cutting charges, steel-cutting charges, breaching charges, and explosive requirements for road craters. It also discusses how to employ bridge demolitions and preparation of a demolitions reconnaissance report. The Module concludes with an examination on demolitions.

Remarks: None

Technique(s) of Delivery:

Small Group Instruction (SGI) (SG)

Hours

35.5

Security Clearance: Unclassified

Lesson Title: Calculate Timber-Cutting Charges

References: FM 3-34.214 Explosives and Demolitions (Pg. 3-1 thru 3-10)

Lesson Title: Calculate Steel-Cutting Charges

References: FM 3-34.214 Explosives and Demolitions (Pg. 3-9 thru 3-17)

Lesson Title: Calculate Breaching Charges

References: FM 3-34.214 Explosives and Demolitions (Ch. 3, Section IV)

Lesson Title: Calculate Explosive Requirement For Road Crater

References: FM 3-34.214 Explosives and Demolitions (Pg. 3-23 thru 3-29)



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- Lesson Title: Employ Bridge Demolitions
References: FM 3-34.214 Explosives and Demolitions (Ch. 4, Appendix F & H), FM 5-34 Pg. 9-25 thru 9-40
- Lesson Title: Conduct a Demolitions Reconnaissance
References: FM 3-34.214 Explosives and Demolitions (pg. 5-5,5-6, Annex I)
- Lesson Title: Demolitions Examination
References: FM 3-34.214 Explosives and Demolitions (Ch. 3 thru 5, Appendix G thru J and student handout)
- Lesson Title: Direct Urban Breaching Operations
References: FM 3-34.214 Explosives and Demolitions (pg. 2-8, Ch. 3 & 7)
- Lesson Title: Urban Breaching Operations Examination
References: FM 3-34.214 Explosives and Demolitions (pg. 2-8, Ch. 3 & 7)

Module: C / 1

Title: Reconnaissance

Purpose: This module provides instruction on reconnaissance reporting. It provides information on extracting information from mission directives, gathering critical information, and completing reconnaissance reports on roads, tunnels, bridges, and fords. It also provides information on completing the Engineer Reconnaissance Report and reconnaissance overlays. The Module concludes with an examination on Reconnaissance.

Remarks: None

Technique(s) of Delivery:

Small Group Instruction (SGI) (SG)

Hours

32.7

Security Clearance: Unclassified

- Lesson Title: Conduct a Road Reconnaissance
References: FM 3-34.170 Reconnaissance (Ch. 3 & 5)
- Lesson Title: Conduct a Tunnel Reconnaissance
References: FM 3-34.170 Reconnaissance (Ch. 5 & Appendix B)
- Lesson Title: Conduct a Ford Reconnaissance
References: FM 3-34.170 Reconnaissance (Ch. 6 & Appendix B)
- Lesson Title: Conduct a Bridge Reconnaissance
References: FM 3-34.170 Reconnaissance (Ch. 5)



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Lesson Title: Conduct a River Reconnaissance

References: FM 3-34.170 Reconnaissance (Ch. 5)

Lesson Title: Conduct an Obstacle Reconnaissance

References: FM 3-34.170 Reconnaissance (Ch. 1,4 & Appendix C)

Lesson Title: Conduct an Engineer Reconnaissance

References: FM 3-34.170 Reconnaissance (Ch. 3)

Lesson Title: Conduct a Route Reconnaissance

References: FM 3-34.170 Reconnaissance (Ch. 3,4 & 5)

Lesson Title: Reconnaissance Examination

References: FM 3-34.170 Reconnaissance

Module: D / 1

Title: Fixed Bridging

Purpose: This module provides instruction on Fixed Bridging types and method for employing the Bailey Bridge, Mabey Johnson Bridge, Dry Support Bridge. This model includes practical exercises on the Bailey and Dry Support Bridge.

Hours

32.7

Lesson Title: Direct Assembly of a Bailey Bridge

References: **=====

Lesson Title: Organize Duties of Medium Girder Bridge Assembly Crews

References: **=====

Lesson Title: Direct Site Layout for Medium Girder Bridge

References: **=====

Lesson Title: Direct Assembly of a Medium Girder Bridge

References: **=====

Lesson Title: Supervise Fixed Bridge Maintenance

References: **=====

Lesson Title: Fixed Bridge Examination

References: **=====

Lesson Title: Direct Deployment of Dry Support Bridge Launch Vehicle

References: **=====

Lesson Title: Direct Assembly of the Dry Support Bridge

References: **=====



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Module: E / 001

Title: Float Bridging

Purpose: This module provides instruction on Float Bridging with a Ribbon Bridge and how to direct Rafting Operations as a Raft Commander. This module includes a practical exercise for rafting on the Mark 2.

Hours

19.3

Lesson Title: Direct Assembly of a Ribbon Bridge

References: **=====

Lesson Title: Direct Assembly of a Ribbon Bridge Raft

References: **=====

Lesson Title: Direct Rafting Operations as Raft Commander

References: **=====

Module: F / 001

Title: Explosive Hazards

Purpose: This module provides instruction on; Explosive Hazards, Installation of minefields, and breaching tenants. The Module concludes with an examination on Explosive hazards.

Lesson Title: Supervise the Installation of a Controlled Area

References: FM 3-34.170 Reconnaissance

Lesson Title: Conduct Counter Explosive Hazards Clearance Operations

References: FM 3-34.170 Reconnaissance

Lesson Title: Prepare for Improvised Explosive Device Threats Prior to Movement

References: FM 3-34.170 Reconnaissance

Lesson Title: Organize Military Search Teams

References: FM 3-34.170 Reconnaissance



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Module: G / 1

Title: Combined Arms/Tactical Training

Purpose: This module provides Soldiers the opportunity to practice combat engineer skills, and leadership skills taught during the course in a tactical field environment. Rotating students in position of leadership responsibility within each group to enhance leadership abilities.

Remarks: None

Technique(s) of Delivery:

Small Group Instruction (SGI) (SG)

Training Aid (TA)

Hours

87.8

Security Clearance: Unclassified

Lesson Title: Prepare an Oral Operations Order (OPORD)

References: ADP 5-0, ADRP 5-0, ATTP 5-0.1

Module: H / 1

Title: Combat Tactics

Purpose: This module rounds out the warrior training for the combat engineer Soldier. The module provides instruction on calling for and directing fire and addresses the Battle Command Systems (FBCB2).

Remarks: None

Technique(s) of Delivery:

Simulator (SO)

Hours

19.2

Security Clearance: Unclassified

Lesson Title: Call For and Adjust Indirect Fires Applications

References: FM 6-30 & TM 3-34.85



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Module: H / 1

Title: Administrative Annex

Purpose: To provide time to conduct administrative activities. To include in-processing, out-processing, one record Army Physical Fitness Test, book issue/turn in, CIF issue/turn in, graduation and student counseling.

Remarks: None

Technique(s) of Delivery:

Small Group Instruction (SGI) (SG)

Hours

28.0

Security Clearance: Unclassified

Total Hours: 261



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Written Examinations

**Demolitions Exam
Fixed Bridging Exam
Float Bridge Exam**

Hands-on Examinations

Reconnaissance Exam

Evaluations

**APFT
Operational Environment Brief
Student-Led Discussions
Leadership Skills
Contribution to Group Work
Research Ability**