

**ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION**

**v 2.0 - APPROVED  
RECORD OF CHANGES**

Log completed change action as indicated:

CHANGE NUMBER	DATE OF CHANGE	DATE RECEIVED	DATE ENTERED	SIGNATURE OF PERSON ENTERING CHANGE



**ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION**

**v 2.0 - APPROVED**

**PREFACE**

1. The Engineer Equipment NCO Operators Course is designed to provide instruction for the tasks and goals listed in SECTION I - APPENDIX B of this POI. These tasks have been selected from the Training and Readiness (T&R) manual Specialty (MOS) 1345. The terminal learning objectives for the lessons in Section IV have been developed from the task list.

2. All agencies and commands cited in Section VI are requested to review the contents of this POI and evaluate the performance of their graduates against field requirements and submit comment and recommendations to:

Commanding Officer  
Marine Corps Detachment Fort Leonard Wood  
686 Minnesota Avenue  
Fort Leonard Wood, Missouri 65473

ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED

TABLE OF CONTENTS

<u>SECTION</u>	<u>TITLE</u>	<u>PAGE</u>
	CERTIFICATION PAGE	i
	RECORD OF CHANGES	ii
	PREFACE	iii
I	COURSE DESCRIPTIVE DATA	I-1
II	SUMMARY OF HOURS	II-1
III	SCOPE OF ANNEXES	III-1
IV	CONCEPT CARDS	IV-1
V	STUDENT PERFORMANCE EVALUATION	V-1
VI	DISTRIBUTION LIST	VI-1



## ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED

## SECTION I - COURSE DESCRIPTIVE DATA

1. COURSE TITLE: ENGINEER EQUIPMENT OPERATOR NCO
2. LOCATION: MARINE CORPS DETACHMENT, 686 Minnesota Ave, Ft Leonard Wood MO. 65473-5850.
3. COURSE ID: A16ACX1
4. OTHER SERVICE COURSE NUMBER: N/A
5. MILITARY ARTICLES AND SERVICE LIST NUMBER (MASL):
6. PURPOSE: To provide advanced training for Engineer Equipment Operator, MOS 1345, for duty in the Operating Forces.
7. SCOPE: This course focuses on safety, operator records/forms, and licensing program. Operator training consists of the LRT-110 Crane, Marine All-Terrain Crane, Rough Terrain Container Handler, 621B Scraper and preparing estimations for project production and logistical requirements.
8. LENGTH (PEACETIME): 60 Training Days
9. CURRICULUM BREAKDOWN (PEACETIME):
  - 464.00 Academic Hours
    - 17.00 Demonstration
    - 99.00 Lecture
    - 274.00 Practical Application
    - 53.00 Performance Examination
    - 21.00 Written Examination
  - 18.00 Administrative Hours
    - 18.00 Administrative
10. LENGTH (MOBILIZATION): 45 Training Days

Mobilization Note: Due to the content of the course and the instruction strategy, there is no difference in the academic hours planned in the event of mobilization. The FLC will teach this course using the existing content during mobilization, but will teach the course using a 6 day week, 10 hour training day rather than the 5 day week, 8 hour training day used in peacetime.
11. CURRICULUM BREAKDOWN (MOBILIZATION): Same as PeaceTime
12. MAXIMUM CLASS CAPACITY: 25
13. OPTIMUM CLASS CAPACITY: 10
14. MINIMUM CLASS CAPACITY: 5
15. CLASS FREQUENCY: 2
16. TARGET POPULATION DESCRIPTION/PREREQUISITES:

Target Population Description: Corporal - Staff Sergeant

Prerequisites: Graduate of Basic Engineer Equipment Operator Course. Must possess an MM score of 95 or



## ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED

## SECTION I - COURSE DESCRIPTIVE DATA

higher. Must have vision correctable to 20/20 and depth perception (third degree binocular fusion). Must be a minimum height of 66 inches. Must meet the licensing requirements of TM 11275-15/4. Must have one year remaining on current enlistment.

17. MOS RECEIVED. NONE
18. OCC FIELD. TECOM (4611)
19. FUNDING. TECOM (C464)  
MARFORRES
20. REPORTING INSTRUCTIONS.

Students report to the Commanding Officer, Marine Corps Detachment, 686 Minnesota Ave, Fort Leonard Wood, MO. Students report to Bldg 693 (EEIC Company Office) during normal working hours and Bldg 1769 after normal working hours. Government quarters and messing are not available. All Marines scheduled to attend this course must verify their billeting reservations by calling the Fort Leonard Wood Billeting Office at 1-800-677-8356 during normal working hours.

21. INSTRUCTOR STAFFING REQUIREMENTS. See Appendix A for Instructor Computation Worksheet.

LN#	GRADE	MOS	BILLET DESCRIPTION	FILLED	VACANT
140	E6	1345	Instructor	1	0
141	E6	1345	Instructor	1	0

22. SCHOOL OVERHEAD REQUIREMENTS.

LN#	GRADE	MOS	BILLET DESCRIPTION	FILLED	VACANT
048	E9	1349	Academics Chief	1	0
056	E7	1349	Programmer	1	0
103	O4	1302	Company Commander	1	0
104	W5	1310	Academics Officer	1	0
105	E8	8999	Company 1stSgt	1	0
106	E7	1349	Ops Chief/Co Gy	1	0
334	G09	0009	Curriculum Developer	1	0

23. TRAINING/EDUCATION SUPPORT REQUIREMENTS.

The following facility requirements are identified for one iteration of the course:



## ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED

## SECTION I - COURSE DESCRIPTIVE DATA

FACILITY	FACILITY ID	SQ FT	REQ'D	ON HAND	SHORT
Classroom	N/A	1024	2	2	0
Memo: Class room 32'x32'					
Head Facilities	N/A	0	1	1	0
Memo: Head W/2 Urinals, 2 Toilets, 2 Sinks, 1 Shower					
Instructor Office	N/A	360	1	1	0
Memo: Instructor Office 20'x18'					
K-Span	N/L	4000	1	1	0
Memo: K-Span is used as a equipment bay facilities.					
Training area	NL	526880	1	1	0
Memo: This training area is approximately 6 acres					

The following material requirements are identified for one iteration of the course:

NOMENCLATURE	NSN	UNITS OF ISSUE	REQ'D	ON HAND	SHORT
2 hole punch	7520-00-224-7589	EACH	3	3	0
3 hole punch	7520-00-163-2563	EACH	2	2	0
Batteries (size 9V)	EVEEN22	BOX	1	1	0
Batteries (size AA)	6135-00-985-7845	BOX	2	2	0
Batteries (size AAA)	6135-00-826-4798	BOX	2	2	0
Batteries (size D)	6135-00-835-7210	BOX	2	2	0
Boot brush	7920-00-061-0038	EACH	3	3	0
Boxlight Projector	7035-02-LSN-0230	EACH	1	1	0
Broom	7920-00-965-4886	EACH	5	5	0
Calender, desk	7510-01-545-3731	EACH	2	2	0
Chairs, Instructor	3GD4RA	EACH	2	2	0
Chairs, student	51171	EACH	25	25	0
Computer disk, blank (Instructor)	7045-01-470-3592	BOX	1	1	0
Computer disk, blank (Student)	7045-01-470-3592	BOX	1	1	0
Computers	KR151AV	EACH	2	2	0
Cork board	7195-01-484-0005	EACH	1	1	0



## ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED

## SECTION I - COURSE DESCRIPTIVE DATA

Coveralls (Instructor)	8405-00-131-6507	EACH	2	2	0
Coveralls (Student)	8405-00-131-6507	EACH	25	25	0
DVD/VCR Player	5836-02-LSN-0156	EACH	1	1	0
Desk, Instructor	11943	EACH	2	2	0
Desk, student	41076	EACH	12	12	0

Memo: Two students per desk

Document Protectors	7510-01-381-2219	BOX	1	1	0
Dry-Erase Board	QRTS574	EACH	1	1	0
Equipment (621 B Scraper)	3805-01-153-1854	UNIT	5	5	0
Equipment (Crane Clamshell)	N/L	EACH	3	3	0
Equipment (Crane, 50 Ton)	3810-01-538-4030	UNIT	9	9	0
Equipment (Guide Lines)	N/L	EACH	20	20	0

Memo: Safety guide lines for ground man during crane Ops

Equipment (LRT 110 Crane)	3810-01-516-9718	UNIT	6	6	0
Equipment (Large Flat Bed Trailer)	N/L	EACH	1	1	0

Memo: This is a training aid for crane section to simulate loading/unloading a flat bed.

Equipment (Lattice Framework for Crane lifts)	N/L	UNIT	1	1	0
Equipment (Mock Vehicles)	N/L	UNIT	6	6	0

Memo: These Mock Vehicles will be used for simulation of Actual Item Object (AIO) crane lifts.

Equipment (Pile Driver)	3895-01-058-2531	EACH	1	1	0
Equipment (RT 240 Container Handler (KALMAR))	3930-01-522-7364	UNIT	4	3	1
Equipment (Tire Cage)	N/L	EACH	1	1	0

Memo: Safety cage for split ring wheels.

Equipment (Weighted Training Aid)	N/L	EACH	25	25	0
-----------------------------------	-----	------	----	----	---

Memo: Weighted training aids will be used for simulation of crane lifts, or for load testing equipment.

Equipment (Wire Rope)	N/L	ROLL	2	2	0
Equipment (Wire Rope)	N/L	ROLL	2	2	0
Eraser, dry	7520-01-365-6126	EACH	2	2	0
Eye Protection	N/L	EACH	25	25	0
Eye wash station	4240-00-551-3134	EACH	1	1	0
File cabinet	7110-00-004-6695	EACH	3	3	0
First aid kit	6545-00-663-9032	EACH	1	1	0
Folders	7530-00-291-0098	EACH	25	25	0



## ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

## v 2.0 - APPROVED

## SECTION I - COURSE DESCRIPTIVE DATA

Glass cleaner	7930-00-901-2088	EACH	5	5	0
Hanging file folders	7530-01-364-9497	PACK	2	2	0
Hard Hats (Instructor)	45971-00001	EACH	2	2	0
Hard Hats (Student)	8415009353140	EACH	25	25	0
Hearing protection	6515-00-137-6345	BOX	1	1	0
Highlighters, yellow	7520009044476	DOZEN	1	1	0
Key locker	7120-00-285-3049	EACH	3	3	0
Leather gloves	13163M	EACH	25	25	0
Lysol cleaner	RAC95432	CAN	3	3	0
Map pens	7510-00-281-4432	BOX	7	7	0
Marker, fine tip dry erase	B1CGDEP41ASST	BOX	7	7	0
Markers, dry erase	7520011863605	ASSORTMEN T	7	7	0
POL (Oil 15w40)	9150-01-421-1432	GALLON	52	52	0
POL (Oil 80w90)	9150-01-035-5393	GALLON	10	10	0
POL (Anti-Freeze)	6850-01-464-9137	EACH	30	30	0
POL (Flame Locker)	N/L	EACH	1	1	0
POL (Haz Mat Locker)	LK1028380	EACH	1	1	0
POL (Hazmat spill kit)	4235-01-457-0678	EACH	2	2	0
POL (Locker)	B900	EACH	1	1	0
POL (Oil 10w)	9150-01-496-1943	GALLON	52	52	0
POL (Penetrating fluid)	6850009739091	CAN	2	2	0
POL Grease (GAA)	9150-01-197-7692	POUND	4	4	0
Pad lock	5340-00-115-83805	EACH	8	8	0
Paper Clips	7510-00-161-4292	BOX	1	1	0
Paper cutter	EPL26234	EACH	1	1	0
Paper towels	85400NIB0064	BOX	1	1	0
Pencil erasers	PAP70520	BOX	1	1	0
Pencil sharpner	EPL1716	EACH	1	1	0
Pencil, #2	7510002815230	DOZEN	2	2	0
Pens, black	7520013861618	DOZEN	2	2	0
Pens, red	7520013576842	DOZEN	2	2	0
Podium, classroom	N/L	EACH	1	1	0
Post it notes	7530011167865	DOZEN	1	1	0
Printer	HEWCE459A	EACH	1	1	0
Printer Paper	7530013352623	BOX	4	4	0
Projector Screen	3920-02LSN-0159	EACH	1	1	0
Projector remote	KMW33374	EACH	1	1	0
Radio head set (PRR)	5820-99-721-8335	EACH	9	9	0

Memo: These radios take batteries and do not use a base station for charging





## ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED

## SECTION I - COURSE DESCRIPTIVE DATA

Rags	7920002051711	BUNDLE	5	5	0
Records and forms (NAVMC 0109-LF-064-6400 10925) EROSL		PACK	1	1	0
Records and forms (NAVMC 0109-LF-063-0300 696D) record folder		PACK	1	1	0
Records and forms (Condition N/L Inspection Record)		PACK	1	1	0
Records and forms (DD 518) 1990504109 Accident ID card		PACK	1	1	0
Records and forms (Load test N/L equip Daily Checklist)		PACK	1	1	0
Records and forms (NAVMC 0000-00-001-6104 10031) Daily dispatching		PACK	1	1	0
Records and forms (NAVMC 0109-LF-063-2900 10245) ERO		PACK	1	1	0
Records and forms (NAVMC 0000-00-005-6304 10523) Operation record		PACK	1	1	0
Records and forms (NAVMC 0000-00-005-6404 10524) Con Log		PACK	1	1	0
Records and forms (NAVMC 0109-LF-063-8700 10560) (LTI)		PACK	1	1	0
Records and forms (NAVMC 0109-LF-063-8800 10561) PMCS roster		PACK	1	1	0
Records and forms (NAVMC 0000-00-006-7680 11053) Mods form A		PACK	1	1	0
Records and forms (NAVMC 0000-00-006-7681 11054) Mods (Form B)		PACKAGE	1	1	0
Records and forms (OF 346) 7540-00-634-3999 Operators ID card		PACK	1	1	0
Records and forms (SF 368) 7540-00-133-5541 PQDR		PACK	1	1	0
Records and forms (SF 94) 7540-00-634-4045 Statement of witness		PACK	1	1	0
Records and forms (SF91) 7540-00-634-4041 MV Accident Report		PACK	1	1	0
Refrigerator	FRT18L4JW	EACH	1	1	0
Remote Gyro	1000-02-LSN-0199	EACH	2	1	1
Scissors	5110-00-223-6371	EACH	3	3	0
Shelves	7125-01-465-7394	EACH	2	2	0
Simple green	7930-01-373-8849	BOTTLE	5	5	0
Speaker System	5830-02-LSN-0157	EACH	2	1	1
Stapler	7520-00-281-5895	EACH	3	3	0
Staples	7510002729818	BOX	1	1	0
Surge protectors	5920-01-C00-0325	EACH	5	5	0
Swab buckets	7920-01-343-3776	EACH	2	2	0



## ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED

## SECTION I - COURSE DESCRIPTIVE DATA

Swabs	7920-00-205-0426	EACH	5	5	0
Tape, duct	7510008909874	ROLL	1	1	0
Tape, electrical	5970004194291	ROLL	1	1	0
Tape, scotch	7510005519825	ROLL	1	1	0
Toilet paper	8540-00-530-3770	BOX	1	1	0
Tools (Air compressor)	4310-01-198-9365	EACH	1	1	0
Tools (Basic operator bag)	5180-01-580-7176	EACH	2	2	0
Tools (Common #22)	4940-01-550-4312	KIT	1	1	0
Tools (General Mechanics Tool kit)	5180-00-606-3566	EACH	1	1	0
Tools (Grease Guns)	4930-00-253-2478	EACH	5	5	0
Tools (NATO Slave cables)	2590-00-148-7961	EACH	2	2	0
Tools (Pressure washer)	494002LSN0170	EACH	1	1	0
Tools (Putty Knife)	N/L	EACH	6	6	0
Tools (Shovels)	5120-21-103-7676	EACH	8	8	0
Tools (Wire Brush)	7920-00-282-9246	EACH	10	10	0
Trash bags	8105-01-517-1365	BOX	1	1	0
Trash can	7520-00-281-5911	EACH	3	3	0
Work Gloves	N/L	PAIR	27	27	0

24. TASK LIST. See Appendix B.

CDD NOTES:

**ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION**

v 2.0 - APPROVED

**SECTION I - COURSE DESCRIPTIVE DATA**

**APPENDIX A - INSTRUCTOR COMPUTATION WORKSHEET (LOCKSTEP)**

**SECTION I COURSE DATA**

COURSE: A16ACX1 ENGINEER EQUIPMENT OPERATOR NCO

LOCATION MARINE CORPS DETACHMENT, 686 Minnesota Ave, Ft Leonard Wood MO. 65473-5850.

PROGRAMMED ANNUAL INPUT (FY13): 50 LENGTH (AVG CAL DAYS): 84  
 PROGRAMMED NUMBER OF CLASSES/YEAR: 2 LENGTH (TRAINING DAYS): 60  
 SYLLABUS HOURS: 464

**SECTION II CURRICULUM BREAKOUT**

(A) TRAINING SITUATION	(B) MAX CLASS SIZE	(C) MAX RATIO (X:1)	(D) INST REQ	(E) SYLLABUS HOURS	(F) INST MANHOURS
Demonstration	25 /	12.50 =	2.00 X	15.00 =	30.00
Demonstration	25 /	25.00 =	1.00 X	2.00 =	2.00
Lecture	25 /	25.00 =	1.00 X	99.00 =	99.00
Performance Examination	25 /	5.00 =	5.00 X	41.00 =	205.00
Performance Examination	25 /	12.50 =	2.00 X	8.00 =	16.00
Performance Examination	25 /	25.00 =	1.00 X	4.00 =	4.00
Practical Application	25 /	5.00 =	5.00 X	214.00 =	1070.00
Practical Application	25 /	12.50 =	2.00 X	31.00 =	62.00
Practical Application	25 /	25.00 =	1.00 X	29.00 =	29.00
Written Examination	25 /	25.00 =	1.00 X	21.00 =	21.00

TOTAL INSTRUCTOR MANHOURS PER CLASS(G): 1538.00



## ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED

## SECTION I - COURSE DESCRIPTIVE DATA

## APPENDIX A - INSTRUCTOR COMPUTATION WORKSHEET (LOCKSTEP)

## SECTION III INSTRUCTOR COMPUTATION

TOTAL INSTRUCTOR MANHOURS PER CLASS	X	PROGRAMMED NUMBER OF CLASSES	=	ANNUAL INSTRUCTOR CONTACT HOURS	3076
ANNUAL INSTRUCTOR CONTACT HOURS	X	1.26	=	ANNUAL INSTRUCTOR HOURS	3875.76
ANNUAL INSTRUCTOR HOURS	/	12	=	MONTHLY INSTRUCTOR HOURS	322.98
MONTHLY INSTRUCTOR HOURS	/	145	=	INSTRUCTORS REQUIRED	2.227 = 2

ICW NOTES: The Instructor Computation Worksheet (Appendix A, SECTION III) calls for 2 instructors required to run this course. This course has a large amount of time utilizing performance oriented training and testing for a class size of 25. With six pieces of Engineer Equipment being operated at one time there are several safety issues to consider. For safety reasons two instructors cannot provide the necessary oversight while accomplishing training in this course. This course requires five Instructors.



**ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION**

v 2.0 - APPROVED

**SECTION I - COURSE DESCRIPTIVE DATA****APPENDIX B - TASKLIST**

DUTY: 1345-ADMN Administration

TASKS: 1345-ADMN-2002 Maintain engineer equipment operator records/forms.  
 1345-ADMN-2003 Initiate a Product Quality Deficiency Report (PQDR) (SF 368)  
 1345-ADMN-2004 Administer engineer equipment licensing program  
 1345-ADMN-2005 Conduct safety inspections

DUTY: 1345-XENG Expeditionary Engineering

TASKS: 1345-XENG-2001 Operate the 621B Scraper  
 1345-XENG-2002 Operate the LRT-110 Crane  
 1345-XENG-2003 Operate the Rough Terrain Container Handler (KALMAR)  
 1345-XENG-2005 Operate the Marine All-Terrain Crane (MAC 50)  
 1345-XENG-2006 Prepare estimations for project production and logistical requirements

DUTY: ILC-IMPI Implement

TASKS: ILC-IMPI-2100 Lead guided discussion

DUTY: MCCS-TRNG Training

TASKS: MCCS-TRNG-2001 Use a T&R Manual  
 MCCS-TRNG-2002 Conduct Training Assessment  
 MCCS-TRNG-2003 Determine Training Strategy  
 MCCS-TRNG-2004 Develop a Short Range Training Plan  
 MCCS-TRNG-2005 Develop Training Schedules  
 MCCS-TRNG-2006 Develop a Training Scenario  
 MCCS-TRNG-2007 Coordinate Unit Training  
 MCCS-TRNG-2008 Conduct Operational Risk Assessment  
 MCCS-TRNG-2009 Create a Performance Evaluation Checklist  
 MCCS-TRNG-2010 Prepare for Training



**ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION**

**v 2.0 - APPROVED**

**SECTION I - COURSE DESCRIPTIVE DATA**

MCCS-TRNG-2012

Evaluate Training

MCCS-TRNG-2013

Conduct After Action Reviews (AAR)

TASK LIST NOTES:



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED

SECTION II - SUMMARY OF HOURS

PEACETIME ( 60 TRAINING DAYS )

ACADEMIC TIME

<u>TITLE</u>	<u>HOURS</u>	<u>ANNEX</u>
SHOP OPERATIONS	47.00	A
EQUIPMENT OPERATIONS	243.00	B
PROJECT MANAGEMENT	78.00	C
EXAMS	74.00	D
Training	22.00	E
	<hr/>	
<b>TOTAL ACADEMIC HOURS:</b>	464.00	

ADMINISTRATIVE TIME

<u>TITLE</u>	<u>HOURS</u>	<u>ANNEX</u>
Orientation	8.00	Z
Out Process	10.00	Z
	<hr/>	
<b>TOTAL ADMINISTRATIVE HOURS:</b>	18.00	

SUMMARY ( PEACETIME)

ACADEMIC TIME	464.00
ADMINISTRATIVE TIME	18.00
	<hr/>
<b>TOTAL ACADEMIC AND ADMINISTRATIVE TIME:</b>	482.00

MOBILIZATION ( 45 TRAINING DAYS )

Due to the content of the course and the instruction strategy, there is no difference in the academic hours planned in the event of mobilization. The FLC will teach this course using the existing content during mobilization, but will teach the course using a 6 day week, 10 hour training day rather than the 5 day week, 8 hour training day used in peacetime.



**ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION**

**v 2.0 - APPROVED**

**SECTION III - SCOPE OF ANNEXES**

- A . SHOP OPERATIONS                      This annex provides instruction in Safety and Operational Risk Management, Records and Forms, and Licensing.
- B . EQUIPMENT OPERATIONS              This annex provides advanced instruction in operating engineer equipment and the supervisory and managerial skills of the NCO. Training stresses safety, control, maneuver, and operation of selected engineer equipment and attachments, and load testing.
- C . PROJECT MANAGEMENT                This annex provides instruction in estimating for logistical requirements.
- D . EXAMS                                      This annex provides written and performance exams.
- E . Training                                     This annex introduces grade appropriate Train the Trainer Integration (T3I) tasks per TECOM directive.
- Z . Administrative                            This annex contains those necessary administrative functions to include orientation, check out, and graduation.





ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED

SECTION IV - CONCEPT CARDS

1. A Concept card is developed to describe each academic or administrative block of time during a course. These concept cards are then grouped into subject areas, called annexes, which are summarized in Section III. Annexes A through Y are reserved for academic lessons and exams. Annex Z is reserved for administrative time.
2. The following information is contained on each academic concept card in section IV:
  - a. **Heading.** The heading listed at the top of the concept card includes the name of the course, the section of the POI, and the letter and title of the annex to which the lesson or exam is assigned.
  - b. **Lesson/Exam ID.** This designator is a unique code assigned to this specific lesson or exam within this course.
  - c. **Hours.** This number (carried to the second decimal place) depicts the amount of time required to conduct the lesson or exam once, even if it is presented multiple times to smaller groups of students.
  - d. **Type.** When Academic Concept Cards are entered there are 3 option types: Lesson Purpose, Task Oriented, and Exam.
  - e. **Category.** For a Training Curriculum, objectives from T&R Manuals will have a category of Training.
  - f. **Title.** This is the title assigned to this lesson or exam. It should refer to the subject matter covered in the lesson or exam when possible.
  - g. **Phase (optional).** This is a code depicting the phase (e.g., week, month, etc.) of the course during which this lesson or exam takes place.
  - h. **Group (optional).** This is a code depicting the instructional group or section of the course during which this lesson or exam takes place.
  - i. **Methods, Hours, S:I Ratio.** Displayed on the concept card are codes that symbolize the methods of instruction used to present this lesson or exam. Following each method code is the time (in hours) allocated to that method and the student to instructor ratio associated with that period of time. (The hours and ratios depicted on the concept card are used to determine instructor-staffing requirements.) The following is a comprehensive list of methods used in this course and their respective codes:

<u>Method</u>	<u>Code</u>
Administrative	ADMIN
Demonstration	D
Lecture	L
Practical Application	PA
Performance Examination	X(P)
Written Examination	X(W)

- j. **Media.** Displayed on the concept card are codes that symbolize the media used to support this lesson or exam. The following is a comprehensive list of media used in this course and their respective codes:

<u>Medium</u>	<u>Code</u>
Actual Item/Object	AIO
Dry Erase Board	DB



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED

SECTION IV - CONCEPT CARDS

Handout	HO
Marine Corps Order	MCO
Performance Evaluation Checklist	PEC
PowerPoint Presentation	PPT
Technical Manual	TM
Test Booklet	TSTBK

**k. Learning Objective(s)/Lesson Purpose.** Academic Concept cards contain either learning objectives or a lesson purpose statement, but not both.

(1) **Learning Objective.** A learning objective describes a behavior that students are expected to perform following instruction, not necessarily identical to a behavior performed on the job. It also details the conditions under which that behavior is performed and the minimum standards of acceptable performance. A student masters the objective when his or her performance equals or exceeds the standard. (Information concerning student evaluation and mastery is contained in Section V of this POI.)

(a) **Terminal Learning Objective (TLO).** One, and only one, TLO is written for each task in section 1, Appendix B, of the POI. The behavior in the TLO duplicates the actual behavior required on the job, modified only if the constraints of the academic environment will not allow it. A TLO should only appear on a concept card for a lesson or exam during which students actually perform the TLO. Each TLO is assigned a numeric designator identical to the designator of its corresponding task in section 1, Annex B, which is identical to the designator of the Training and Readiness (T & R) from which the task was derived. This designator is located in parentheses at the end of the TLO.

(b) **Enabling Learning Objective (ELO).** ELOs are designed to teach students the knowledge and skills required for successful performance of the TLOs. Each ELO is placed only on concept cards for lesson or exams during which students actually perform the ELO. Many introductory lessons will contain only ELOs. Each ELO is assigned the same numeric designator as the TLO it supports, followed by a unique combination of one or two letters. This designator is located in parentheses at the end of the ELO. (The first 26 ELOs are assigned the letters "a" through "z" consecutively. If there are more than 26 ELOs, they are assigned the letters "aa" through "az", then "ba" through "bz", etc.)

(2) **Lesson Purpose.** A lesson purpose statement is recorded on a concept card where no learning objectives are appropriate (e.g., overview, orientation, or enrichment lesson) and the lesson is not to be evaluated. The lesson purpose statement clearly describes the rationale for presenting the lesson.

**l. Ammunition Requirements.** Whenever a lesson requires the use of ammunition by students or by the instructional staff in support of the lesson, the concept card for that lesson will include a table describing those requirements. Included for each type of ammunition will be its Department of Defense Identification Code (DODIC), its nomenclature, the average number of rounds used by each student and number of support rounds.

**m. Notes (Optional).** This section of the concept card contains any information pertinent to the lesson. Examples of items which may be addressed here are instructor requirements, scheduling notes, special prerequisites, references to test on that material will be evaluated, etc.

**n. References.** This section contains the source documents used for development of the lesson or other references which relate to the lesson. At a minimum, it must contain all documents referenced in the learning objectives included on the concept card.

3. The following information is contained on each administrative concept card in section IV:



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED

SECTION IV - CONCEPT CARDS

- a. **Heading.** The heading listed at the top of the concept card included the name of the course, the section of the POI, and the fact that this concept card is part of Annex Z, Administrative Time.
  - b. **Event ID.** This designator is a unique code assigned to this administrative event within the course.
  - c. **Hours.** This number (carried to the second decimal place) depicts the amount of administrative time required for this event. If this is a repeating event, one concept card may indicate the cumulative hours associated with this event throughout the course.
  - d. **Type.** When Administrative Concept Cards are entered, the type will always be Administrative.
  - e. **Category.** For a Training Curriculum, objectives from T&R Manuals will have a category of Training.
  - f. **Event.** This is a short description of the administrative event.
  - g. **Notes (Optional).** This section of the concept card contains any information pertinent to the administrative block of time.
4. The following pages contain useful information for locating the learning objectives and lessons that make up this course:
- a. **Location of Learning Objectives Report.** This report lists, by learning objective designator, all learning objectives developed for this course. It also identifies every concept card on which learning objective is included.
  - b. **Academic and Administrative Summaries.** This report lists, by annex, all objective designators, all learning objectives developed for this course. It also identifies every concept card on which learning objective is included.



## ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

## LOCATION OF LEARNING OBJECTIVES REPORT

<u>LO</u>	<u>ANNEX</u>	<u>LESSON ID</u>	<u>LESSON TITLE</u>
1345-ADMN-2002	A	NCOO - A02	Record and Forms
	D	NCOO - A02X(P)	Records and Forms
	D	NCOO - A02X(W)	Records and Forms
	D	NCOO - Post exam	Post Examination
1345-ADMN-2002a	A	NCOO - A02	Record and Forms
	D	NCOO - A02X(W)	Records and Forms
	D	NCOO - Post exam	Post Examination
1345-ADMN-2002b	A	NCOO - A02	Record and Forms
	D	NCOO - A02X(P)	Records and Forms
1345-ADMN-2002c	A	NCOO - A02	Record and Forms
	D	NCOO - A02X(W)	Records and Forms
	D	NCOO - Post exam	Post Examination
1345-ADMN-2003	A	NCOO - A02	Record and Forms
	D	NCOO - A02X(P)	Records and Forms
1345-ADMN-2003a	A	NCOO - A02	Record and Forms
	D	NCOO - A02X(P)	Records and Forms
1345-ADMN-2003b	A	NCOO - A02	Record and Forms
	D	NCOO - A02X(P)	Records and Forms
1345-ADMN-2003c	A	NCOO - A02	Record and Forms
	D	NCOO -	Records and Forms



## ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

## LOCATION OF LEARNING OBJECTIVES REPORT

<u>LO</u>	<u>ANNEX</u>	<u>LESSON ID</u>	<u>LESSON TITLE</u>
		A02X(P)	
1345-ADMN-2004	A	NCOO - A03	Engineer Equipment Licensing Program
	D	NCOO - A03X(W)	Engineer Equipment Licensing Program
	D	NCOO - Post exam	Post Examination
1345-ADMN-2004a	A	NCOO - A03	Engineer Equipment Licensing Program
	D	NCOO - A03X(W)	Engineer Equipment Licensing Program
	D	NCOO - Post exam	Post Examination
1345-ADMN-2004b	A	NCOO - A03	Engineer Equipment Licensing Program
	D	NCOO - A03X(W)	Engineer Equipment Licensing Program
	D	NCOO - Post exam	Post Examination
1345-ADMN-2004c	A	NCOO - A03	Engineer Equipment Licensing Program
	D	NCOO - A03X(W)	Engineer Equipment Licensing Program
	D	NCOO - Post exam	Post Examination
1345-ADMN-2004d	A	NCOO - A03	Engineer Equipment Licensing Program
	D	NCOO - A03X(W)	Engineer Equipment Licensing Program
	D	NCOO - Post exam	Post Examination
1345-ADMN-2005	A	NCOO - A01	Ground Safety/ORM
	D	NCOO - A01X(W)	Ground Safety/ORM
	D	NCOO - Post exam	Post Examination
1345-ADMN-2005a	A	NCOO - A01	Ground Safety/ORM
	D	NCOO -	Ground Safety/ORM



## ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

## LOCATION OF LEARNING OBJECTIVES REPORT

<u>LO</u>	<u>ANNEX</u>	<u>LESSON ID</u>	<u>LESSON TITLE</u>
		A01X(W)	
	D	NCOO - Post exam	Post Examination
1345-ADMN-2005b	A	NCOO - A01	Ground Safety/ORM
	D	NCOO - A01X(W)	Ground Safety/ORM
	D	NCOO - Post exam	Post Examination
1345-ADMN-2005c	A	NCOO - A01	Ground Safety/ORM
	D	NCOO - A01X(W)	Ground Safety/ORM
	D	NCOO - Post exam	Post Examination
1345-ADMN-2005d	A	NCOO - A01	Ground Safety/ORM
	D	NCOO - A01X(W)	Ground Safety/ORM
	D	NCOO - Post exam	Post Examination
1345-ADMN-2005e	A	NCOO - A01	Ground Safety/ORM
	D	NCOO - A01X(W)	Ground Safety/ORM
	D	NCOO - Post exam	Post Examination
1345-XENG-2001	B	NCOO - B03	621B Operations
	D	NCOO - B03X(P)	621B Operations
	D	NCOO - B03X(W)	621B Operations Exam
	D	NCOO - Post exam	Post Examination
1345-XENG-2001a	B	NCOO - B03	621B Operations
	D	NCOO - B03X(W)	621B Operations Exam
	D	NCOO - Post exam	Post Examination



## ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

## LOCATION OF LEARNING OBJECTIVES REPORT

<u>LO</u>	<u>ANNEX</u>	<u>LESSON ID</u>	<u>LESSON TITLE</u>
		exam	
1345-XENG-2001b	B	NCOO - B03	621B Operations
	D	NCOO - B03X(P)	621B Operations
1345-XENG-2001c	B	NCOO - B03	621B Operations
	D	NCOO - B03X(P)	621B Operations
1345-XENG-2001d	B	NCOO - B03	621B Operations
	D	NCOO - B03X(P)	621B Operations
1345-XENG-2001e	B	NCOO - B03	621B Operations
	D	NCOO - B03X(P)	621B Operations
1345-XENG-2001f	B	NCOO - B03	621B Operations
	D	NCOO - B03X(P)	621B Operations
1345-XENG-2002	B	NCOO - B01	Crane Operations
	D	NCOO - B01X(P)b	Crane Operations (LRT-110)
	D	NCOO - B01X(P)c	Crane Operations (Load test/ACI)
	D	NCOO - B01X(W)a	Crane Operations (LRT-110)
	D	NCOO - Post exam	Post Examination
1345-XENG-2002a	B	NCOO - B01	Crane Operations
	D	NCOO - B01X(W)a	Crane Operations (LRT-110)
	D	NCOO - Post exam	Post Examination
1345-XENG-2002b	B	NCOO - B01	Crane Operations

## ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

## LOCATION OF LEARNING OBJECTIVES REPORT

<u>LO</u>	<u>ANNEX</u>	<u>LESSON ID</u>	<u>LESSON TITLE</u>
	D	NCOO - B01X(P)b	Crane Operations (LRT-110)
1345-XENG-2002c	B	NCOO - B01	Crane Operations
	D	NCOO - B01X(P)b	Crane Operations (LRT-110)
1345-XENG-2002d	B	NCOO - B01	Crane Operations
	D	NCOO - B01X(P)b	Crane Operations (LRT-110)
1345-XENG-2002e	B	NCOO - B01	Crane Operations
	D	NCOO - B01X(P)b	Crane Operations (LRT-110)
1345-XENG-2002f	B	NCOO - B01	Crane Operations
	D	NCOO - B01X(P)b	Crane Operations (LRT-110)
1345-XENG-2002g	B	NCOO - B01	Crane Operations
	D	NCOO - B01X(P)c	Crane Operations (Load test/ACI)
1345-XENG-2003	B	NCOO - B02	Container Handler Operations
	D	NCOO - B02X(P)	Container Handler Operations
	D	NCOO - B02X(W)	Container Handler Operations
	D	NCOO - Post exam	Post Examination
1345-XENG-2003a	B	NCOO - B02	Container Handler Operations
	D	NCOO - B02X(W)	Container Handler Operations
	D	NCOO - Post exam	Post Examination
1345-XENG-2003b	B	NCOO - B02	Container Handler Operations
	D	NCOO - B02X(P)	Container Handler Operations





## ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

## LOCATION OF LEARNING OBJECTIVES REPORT

<u>LO</u>	<u>ANNEX</u>	<u>LESSON ID</u>	<u>LESSON TITLE</u>
1345-XENG-2003c	B	NCOO - B02	Container Handler Operations
	D	NCOO - B02X(P)	Container Handler Operations
1345-XENG-2003d	B	NCOO - B02	Container Handler Operations
	D	NCOO - B02X(P)	Container Handler Operations
1345-XENG-2003e	B	NCOO - B02	Container Handler Operations
	D	NCOO - B02X(P)	Container Handler Operations
1345-XENG-2003f	B	NCOO - B02	Container Handler Operations
	D	NCOO - B02X(P)	Container Handler Operations
1345-XENG-2003g	B	NCOO - B02	Container Handler Operations
	D	NCOO - B02X(P)	Container Handler Operations
1345-XENG-2005	B	NCOO - B01	Crane Operations
	D	NCOO - B01X(P)a	Crane Operations (MAC 50)
	D	NCOO - B01X(P)c	Crane Operations (Load test/ACI)
	D	NCOO - B01X(W)b	Crane Operations (MAC 50)
	D	NCOO - B01X(W)c	Crane Operations (load test)
	D	NCOO - Post exam	Post Examination
1345-XENG-2005a	B	NCOO - B01	Crane Operations
	D	NCOO - B01X(W)b	Crane Operations (MAC 50)
	D	NCOO - Post exam	Post Examination
1345-XENG-2005b	B	NCOO - B01	Crane Operations



## ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

## LOCATION OF LEARNING OBJECTIVES REPORT

<u>LO</u>	<u>ANNEX</u>	<u>LESSON ID</u>	<u>LESSON TITLE</u>
	D	NCOO - B01X(P)a	Crane Operations (MAC 50)
1345-XENG-2005c	B	NCOO - B01	Crane Operations
	D	NCOO - B01X(P)a	Crane Operations (MAC 50)
1345-XENG-2005d	B	NCOO - B01	Crane Operations
	D	NCOO - B01X(P)a	Crane Operations (MAC 50)
1345-XENG-2005e	B	NCOO - B01	Crane Operations
	D	NCOO - B01X(P)a	Crane Operations (MAC 50)
1345-XENG-2005f	B	NCOO - B01	Crane Operations
	D	NCOO - B01X(W)b	Crane Operations (MAC 50)
1345-XENG-2005g	B	NCOO - B01	Crane Operations
	D	NCOO - B01X(P)a	Crane Operations (MAC 50)
1345-XENG-2005h	B	NCOO - B01	Crane Operations
	D	NCOO - B01X(W)c	Crane Operations (load test)
	D	NCOO - Post exam	Post Examination
1345-XENG-2005i	B	NCOO - B01	Crane Operations
	D	NCOO - B01X(P)c	Crane Operations (Load test/ACI)
1345-XENG-2006	C	NCOO - A04	Estimating for Mission Requirements
	D	NCOO - A04X(W)a	Estimating for Mission Requirements (Scrapers)
	D	NCOO - A04X(W)b	Estimating for Mission Requirements (Loaders)
	D	NCOO - A04X(W)c	Estimating for Logistical Requirements



## ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

## LOCATION OF LEARNING OBJECTIVES REPORT

<u>LO</u>	<u>ANNEX</u>	<u>LESSON ID</u>	<u>LESSON TITLE</u>
	D	NCOO - Post exam	Post Examination
1345-XENG-2006a	C	NCOO - A04	Estimating for Mission Requirements
	D	NCOO - A04X(W)a	Estimating for Mission Requirements (Scrapers)
	D	NCOO - A04X(W)b	Estimating for Mission Requirements (Loaders)
	D	NCOO - Post exam	Post Examination
1345-XENG-2006b	C	NCOO - A04	Estimating for Mission Requirements
	D	NCOO - A04X(W)a	Estimating for Mission Requirements (Scrapers)
	D	NCOO - A04X(W)b	Estimating for Mission Requirements (Loaders)
	D	NCOO - Post exam	Post Examination
1345-XENG-2006c	C	NCOO - A04	Estimating for Mission Requirements
	D	NCOO - A04X(W)a	Estimating for Mission Requirements (Scrapers)
	D	NCOO - A04X(W)b	Estimating for Mission Requirements (Loaders)
	D	NCOO - Post exam	Post Examination
1345-XENG-2006d	C	NCOO - A04	Estimating for Mission Requirements
	D	NCOO - A04X(W)a	Estimating for Mission Requirements (Scrapers)
	D	NCOO - A04X(W)b	Estimating for Mission Requirements (Loaders)
	D	NCOO - Post exam	Post Examination
1345-XENG-2006e	C	NCOO - A04	Estimating for Mission Requirements
	D	NCOO - A04X(W)c	Estimating for Logistical Requirements
ILC-IMPI-2100	E	NCOO - E02	Guided Discussion



## ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

## LOCATION OF LEARNING OBJECTIVES REPORT

<u>LO</u>	<u>ANNEX</u>	<u>LESSON ID</u>	<u>LESSON TITLE</u>
	D	NCOO - E02X(P)	Guided Discussion
ILC-IMPI-2100a	E	NCOO - E02	Guided Discussion
	D	NCOO - E02X(P)	Guided Discussion
ILC-IMPI-2100b	E	NCOO - E02	Guided Discussion
	D	NCOO - E02X(P)	Guided Discussion
ILC-IMPI-2100c	E	NCOO - E02	Guided Discussion
	D	NCOO - E02X(P)	Guided Discussion
ILC-IMPI-2100d	E	NCOO - E02	Guided Discussion
	D	NCOO - E02X(P)	Guided Discussion
ILC-IMPI-2100e	E	NCOO - E02	Guided Discussion
	D	NCOO - E02X(P)	Guided Discussion
MCCS-TRNG-2001	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2001a	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2001b	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2001c	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training

## ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

## LOCATION OF LEARNING OBJECTIVES REPORT

<u>LO</u>	<u>ANNEX</u>	<u>LESSON ID</u>	<u>LESSON TITLE</u>
MCCS-TRNG-2001d	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2002	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2002a	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2002b	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2002c	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2002d	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2002e	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2003	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2003a	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2004	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training

## ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

## LOCATION OF LEARNING OBJECTIVES REPORT

<u>LO</u>	<u>ANNEX</u>	<u>LESSON ID</u>	<u>LESSON TITLE</u>
MCCS-TRNG-2004a	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2004b	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2004c	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2004d	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2004e	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2005	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2005a	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2005b	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2005c	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2006	E	NCOO - E01	Conduct Training
	D	NCOO -	Conduct Training

## ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

## LOCATION OF LEARNING OBJECTIVES REPORT

<u>LO</u>	<u>ANNEX</u>	<u>LESSON ID</u>	<u>LESSON TITLE</u>
		E01X(W)	
MCCS-TRNG-2006a	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2007	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2007a	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2007b	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2008	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2008a	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2008b	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2009	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2009a	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2009b	E	NCOO - E01	Conduct Training

## ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

## LOCATION OF LEARNING OBJECTIVES REPORT

<u>LO</u>	<u>ANNEX</u>	<u>LESSON ID</u>	<u>LESSON TITLE</u>
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2010	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2010a	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2012	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2012a	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2012b	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2012c	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2012d	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2013	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2013a	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training



## ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

## LOCATION OF LEARNING OBJECTIVES REPORT

<u>LO</u>	<u>ANNEX</u>	<u>LESSON ID</u>	<u>LESSON TITLE</u>
MCCS-TRNG-2013b	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2013c	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2013d	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training
MCCS-TRNG-2013e	E	NCOO - E01	Conduct Training
	D	NCOO - E01X(W)	Conduct Training

## ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

## ACADEMIC SUMMARY

<u>IDENTIFIER</u>	<u>TITLE</u>	<u>HOUR</u>	<u>TYPE</u>	<u>CATEGORY</u>
ANNEX A	SHOP OPERATIONS			
NCOO - A01	Ground Safety/ORM	8.00	T	TRN
NCOO - A02	Record and Forms	35.00	T	TRN
NCOO - A03	Engineer Equipment Licensing Program	4.00	T	TRN
	Annex Total:	47.00		
ANNEX B	EQUIPMENT OPERATIONS			
NCOO - B01	Crane Operations	137.00	T	TRN
NCOO - B02	Container Handler Operations	38.00	T	TRN
NCOO - B03	621B Operations	68.00	T	TRN
	Annex Total:	243.00		
ANNEX C	PROJECT MANAGEMENT			
NCOO - A04	Estimating for Mission Requirements	78.00	T	TRN
	Annex Total:	78.00		
ANNEX D	EXAMS			
NCOO - A01X(W)	Ground Safety/ORM	1.00	E	TRN
NCOO - A02X(P)	Records and Forms	4.00	E	TRN
NCOO - A02X(W)	Records and Forms	1.00	E	TRN
NCOO - A03X(W)	Engineer Equipment Licensing Program	1.00	T	TRN
NCOO - A04X(W)a	Estimating for Mission Requirements (Scrapers)	4.00	E	TRN
NCOO - A04X(W)b	Estimating for Mission Requirements (Loaders)	4.00	E	TRN
NCOO - A04X(W)c	Estimating for Logistical Requirements	2.00	E	TRN
NCOO - B01X(P)a	Crane Operations (MAC 50)	10.50	E	TRN
NCOO - B01X(P)b	Crane Operations (LRT-110)	7.50	E	TRN
NCOO - B01X(P)c	Crane Operations (Load test/ACI)	7.00	E	TRN
NCOO - B01X(W)a	Crane Operations (LRT-110)	1.00	E	TRN



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ACADEMIC SUMMARY

<u>IDENTIFIER</u>	<u>TITLE</u>	<u>HOUR</u>	<u>TYPE</u>	<u>CATEGORY</u>
NCOO - B01X(W)b	Crane Operations (MAC 50)	1.00	E	TRN
NCOO - B01X(W)c	Crane Operations (load test)	1.00	E	TRN
NCOO - B02X(P)	Container Handler Operations	9.00	E	TRN
NCOO - B02X(W)	Container Handler Operations	1.00	E	TRN
NCOO - B03X(P)	621B Operations	7.00	E	TRN
NCOO - B03X(W)	621B Operations Exam	1.00	E	TRN
NCOO - E01X(W)	Conduct Training	2.00	E	TRN
NCOO - E02X(P)	Guided Discussion	8.00	E	TRN
NCOO - Post exam	Post Examination	1.00	E	TRN
		Annex Total:	74.00	
ANNEX E	Training			
NCOO - E01	Conduct Training	14.00	T	TRN
NCOO - E02	Guided Discussion	8.00	T	TRN
		Annex Total:	22.00	
		Total Academic Hours:	464.00	



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ADMINISTRATIVE SUMMARY

<u>IDENTIFIER</u>	<u>TITLE</u>	<u>HOUR</u>	<u>TYPE</u>	<u>CATEGORY</u>
ANNEX Z	Administrative			
NCOO - INPROCESS	Orientation	8.00	ADM	TRN
NCOO - OUT PROCESS	Out Process	10.00	ADM	TRN

Total Administrative Hours: 18.00

Total POI Hours: 482.00



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX A - SHOP OPERATIONS

LESSON ID: NCOO - A01

HOURS: 8.00

TYPE: Task Oriented

CATEGORY: Training

TITLE: Ground Safety/ORM

METHOD	HOURS	S:I RATIO
L	6.00	25 : 1
PA	2.00	25 : 1

MEDIA: DB, HO, MCO, PPT

**TERMINAL LEARNING OBJECTIVE(S)**

- 1 . Provided a working environment with working personnel and references, conduct safety inspections to identify discrepancies in safety procedures and to provide for their immediate correction per the references. (1345-ADMN-2005)

**ENABLING LEARNING OBJECTIVE(S)**

- 1 . Without the aid of reference, identify references required to run a safety program per the MCO 5100.29A. (1345-ADMN-2005a)
- 2 . Without the aid of reference, identify the ORM process per the MCO3500.27. (1345-ADMN-2005b)
- 3 . Without the aid of reference, identify potential hazards per the MCO P5100.8. (1345-ADMN-2005c)
- 4 . Without the aid of reference, identify the requirements for reporting accidents per the MCO P5100.8 (1345-ADMN-2005d)
- 5 . Without the aid of reference, identify safety-training requirements of personnel per the MCO P5100.8. (1345-ADMN-2005e)

**NOTE(S):**

**REFERENCE - TITLE**

Marine Corps Occupational Safety and Health (OSH) Program Manual

**PUBLICATION ID**

NAVMC DIR 5100.8\_

**CHAPTER/PAGE**



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX A - SHOP OPERATIONS

LESSON ID: NCOO - A01

HOURS: 8.00

TYPE: Task Oriented

CATEGORY: Training

TITLE: Ground Safety/ORM

Marine Corps Safety Program

MCO 5100.29\_

Operational Risk Management (ORM)

MCO 3500.27\_



**ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION**

**v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS**

**ANNEX A - SHOP OPERATIONS**

**LESSON ID:** NCOO - A02

**HOURS:** 35.00

**TYPE:** Task Oriented

**CATEGORY:** Training

**TITLE:** Record and Forms

<b>METHOD</b>	<b>HOURS</b>	<b>S:I RATIO</b>
L	12.00	25 : 1
PA	23.00	25 : 1

**MEDIA:** AIO, DB, HO, MCO, PPT, TM

**TERMINAL LEARNING OBJECTIVE(S)**

- 1 . Provided an item of Engineer Equipment, Record Jacket (NAVMC 696D), Engineer Equipment Operational Record (NAVMC 10523), Daily Dispatch-Log Record of Vehicles (NAVMC 10031), ERO (NAVMC 10245), Worksheet for Preventive Maintenance and Technical Inspection for Engineer Equipment (NAVMC 10560), Engineer Equipment Operation Log and Services Record Consolidated (NAVMC 10524), Preventive Maintenance Checks and Services Roster (NAVMC 105), EROS Condition Inspection Record, Load Test Equipment Daily Checklist (NAVMC 10925) and references, maintain engineer equipment operator records/forms, to comply with record-keeping procedures per the references. (1345-ADMN-2002)
- 2 . With a defective item, blank forms, and references, initiate a Product Quality Deficiency Report (PQDR) (SF 368) so deficiency can be corrected per the references. (1345-ADMN-2003)

**ENABLING LEARNING OBJECTIVE(S)**

- 1 . Without the aid of references, identify engineer equipment operator records/forms per the TM 4700-15/1\_ and MCO P11262.2\_ (1345-ADMN-2002a)
- 2 . With the aid of references, prepare the records/forms per the references. (1345-ADMN-2002b)
- 3 . Without the aid of reference, identify records/forms that are to be maintained in the NAVMC 696D per the TM 4700-15/1\_. (1345-ADMN-2002c)
- 4 . Provided a DD Form 1575, descriptive data, and with the aid reference, complete the DD Form 1575 per the TM 4700-15/1\_. (1345-ADMN-2003a)
- 5 . Provided a DD Form 2332, descriptive data, and with the aid reference, complete the DD Form 2332 per the TM 4700-15/1\_. (1345-ADMN-2003b)



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX A - SHOP OPERATIONS

LESSON ID: NCOO - A02

HOURS: 35.00

TYPE: Task Oriented

CATEGORY: Training

TITLE: Record and Forms

6. Provided a SF 368, descriptive data, and with the aid reference, complete the SF 368 per the TM 4700-15/1\_. (1345-ADMN-2003c)

**NOTE(S):**

<b><u>REFERENCE - TITLE</u></b>	<b><u>PUBLICATION ID</u></b>	<b><u>CHAPTER/PAGE</u></b>
Ground Equipment Record Procedures	TM 4700-15/1_	
Inspection, Testing, and Certification of Tactical Ground Load Lifting Equipment	MCO P11262.2	
MIMMS Field Procedures Manual	MCO P4790.2_	
MIMMS-AIS Field Maintenance Procedures	UM 4790-5	





**ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION**

**v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS**

**ANNEX A - SHOP OPERATIONS**

**LESSON ID:** NCOO - A03

**HOURS:** 4.00

**TYPE:** Task Oriented

**CATEGORY:** Training

**TITLE:** Engineer Equipment Licensing Program

<b>METHOD</b>	<b>HOURS</b>	<b>S:I RATIO</b>
L	3.00	25 : 1
PA	1.00	25 : 1

**MEDIA:** AIO, DB, HO, PPT, TM

**TERMINAL LEARNING OBJECTIVE(S)**

- 1 . With personnel, documentation, licensing records, and references, administer engineer equipment licensing program ensuring equipment operators are licensed per the references. (1345-ADMN-2004)

**ENABLING LEARNING OBJECTIVE(S)**

- 1 . Without the aid of reference, identify records and forms required to develop a licensing program per the TM-11275-15/4. (1345-ADMN-2004a)
- 2 . Without the aid of reference, identify responsibilities of the licensing examiner per the TM-11275-15/4. (1345-ADMN-2004b)
- 3 . Given support documentation, personnel, engineer equipment, and without the aid of reference, identify testing procedures per the TM-11275-15/4. (1345-ADMN-2004c)
- 4 . Given support documentation, personnel, engineer equipment, and without the aid of reference, identify licensing records procedures per the TM-11275-15/4. (1345-ADMN-2004d)

**NOTE(S):**

<b><u>REFERENCE - TITLE</u></b>	<b><u>PUBLICATION ID</u></b>	<b><u>CHAPTER/PAGE</u></b>
Ground Equipment Record Procedures	TM 4700-15/1_	
Principal Technical Characteristics of U.S. Marine Corps Engineer Equipment	TM 11275-15/3_	
Tactical Engineer Equipment Licensing Manual	TM 11275-15/4	



**Date: 20131008**

**ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION**

**v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS**



**ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION**

**v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS**

**ANNEX B - EQUIPMENT OPERATIONS**

**LESSON ID:** NCOO - B01

**HOURS:** 137.00

**TYPE:** Task Oriented

**CATEGORY:** Training

**TITLE:** Crane Operations

<b>METHOD</b>	<b>HOURS</b>	<b>S:I RATIO</b>
D	9.00	25 : 2
L	14.00	25 : 1
PA	114.00	25 : 5

**MEDIA:** AIO, DB, HO, MCO, PPT, TM

**TERMINAL LEARNING OBJECTIVE(S)**

- 1 . Provided the LRT-110 Crane, and engineer equipment requirement, engineer equipment records and forms, and references, operate LRT-110 Crane in support of engineer operations to safely meet operational requirements with no injury to personnel or damage to equipment per the references. (1345-XENG-2002)
- 2 . Provided a MAC 50, an engineer equipment requirement, attachments, tools, engineer equipment records and forms, and references, operate the Marine All-Terrain Crane (MAC 50) to safely meet operational requirements with no injury to personnel or damage to the equipment per the references. (1345-XENG-2005)

**ENABLING LEARNING OBJECTIVE(S)**

- 1 . Without the aid of reference, identify the characteristics of the MAC 50 per the TM 11262A-OR/3. (1345-XENG-2005a)
- 2 . Provided a MAC 50, engineer equipment records and forms, and with the aid of reference, initiate operator records and forms per the TM 4700-15/1\_. (1345-XENG-2005b)
- 3 . Provided a MAC 50, engineer equipment records and forms, tools, petroleum, oils, and lubricants, and with the aid of reference, perform operation checks (before, during, and after) per the TM 11262A-OR/3. (1345-XENG-2005c)
- 4 . Provided a MAC 50, engineer equipment records and forms, move the crane to job site per the TM 11262A-OR/3. (1345-XENG-2005d)
- 5 . Provided a MAC 50, training aids to be lifted, and with the aid of reference, perform assigned lifts per the TM 11262A-OR/3. (1345-XENG-2005e)



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX B - EQUIPMENT OPERATIONS

LESSON ID: NCOO - B01

HOURS: 137.00

TYPE: Task Oriented

CATEGORY: Training

TITLE: Crane Operations

6. Provided a MAC 50, a clamshell, tools and equipment, and with the aid of reference, identify procedures to install/remove clamshell per the TM 11262A-OR/3. (1345-XENG-2005f)
7. Provided a MAC 50, engineer equipment records and forms, and reference, complete operational records and forms per the TM 4700-15/1\_. (1345-XENG-2005g)
8. Without the aid of reference, identify the procedures for load testing per the MCO 11262.2. (1345-XENG-2005h)
9. Provided with a MAC 50, a completed annual condition inspection, load test facilities and equipment, appropriate tools and reference. assist test director/instructor to conduct load test per the MCO 11262.2. (1345-XENG-2005i)
10. Without the aid of reference, identify the characteristics of the LRT-110 per the TM 5-3810-305-10. (1345-XENG-2002a)
11. Provided a LRT-110, engineer equipment records and forms, and with the aid of reference, initiate operator records and forms per the TM 4700-15/1\_. (1345-XENG-2002b)
12. Provided a LRT-110, engineer equipment records and forms, tools, petroleum, oils, and lubricants, and with the aid of reference, perform operation checks (before, during, and after) per the TM 5-3810-305-10. (1345-XENG-2002c)
13. Provided a LRT-110, engineer equipment records and forms, move crane to job site per the TM 5-3810-305-10. (1345-XENG-2002d)
14. Provided a LRT-110, training aids to be lifted, and with the aid of reference, perform assigned lifts per the TM 5-3810-305-10. (1345-XENG-2002e)
15. Provided a LRT-110, engineer equipment records and forms, and reference, complete operational records and forms per the TM 4700-15/1\_. (1345-XENG-2002f)
16. Provided with a LRT-110, a completed annual condition inspection, load test facilities and equipment, appropriate tools, and reference. assist test director/instructor to conduct load test per the MCO 11262.2.



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX B - EQUIPMENT OPERATIONS

LESSON ID: NCOO - B01

HOURS: 137.00

TYPE: Task Oriented

CATEGORY: Training

TITLE: Crane Operations  
(1345-XENG-2002g)

NOTE(S):

<u>REFERENCE - TITLE</u>	<u>PUBLICATION ID</u>	<u>CHAPTER/PAGE</u>
Ground Equipment Record Procedures	TM 4700-15/1_	
Inspection, Testing, and Certification of Tactical Ground Load Lifting Equipment	MCO P11262.2	
Operation/maintenance manual with repair part list	TM 09166B-14&P	
Operations and Operator/Crew Maintenance Manual for all- terrain crane	TM 11262A-OR/3	
Operators manual for crane, wheel mounted, hydraulic, light, 7 ½ ton rough terrain crane	TM 5-3810-305-10	



**ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION**

**v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS**

**ANNEX B - EQUIPMENT OPERATIONS**

**LESSON ID:** NCOO - B02

**HOURS:** 38.00

**TYPE:** Task Oriented

**CATEGORY:** Training

**TITLE:** Container Handler Operations

<b>METHOD</b>	<b>HOURS</b>	<b>S:I RATIO</b>
D	1.00	25 : 2
L	2.00	25 : 1
PA	35.00	25 : 5

**MEDIA:** AIO, DB, HO, PPT, TM

**TERMINAL LEARNING OBJECTIVE(S)**

- 1 . Provided a KALMAR, engineer equipment records and forms and references, operate the Rough Terrain Container Handler in support of engineer operations to safely meet operational requirements with no injury to personnel or damage to the equipment per the references. (1345-XENG-2003)

**ENABLING LEARNING OBJECTIVE(S)**

- 1 . Without the aid of reference, identify the characteristics of the KALMAR per the TM 11078A-OR. (1345-XENG-2003a)
- 2 . Provided a KALMAR, engineer equipment records and forms, and with the aid of reference, initiate operator forms and records per the TM 4700-15/1\_. (1345-XENG-2003b)
- 3 . Provided a KALMAR, engineer equipment records and forms, tools, petroleum, oils, and lubricants, and with the aid of reference, perform operation checks (before, during, and after) per the TM 11078A-OR. (1345-XENG-2003c)
- 4 . Provided a KALMAR, an engineer equipment requirement, engineer equipment records and forms, move the KALMAR to job site per the TM 11078A-OR. (1345-XENG-2003d)
- 5 . Provided a KALMAR, containers, an engineer equipment requirement, engineer equipment records and forms, and reference, stack containers three high per the TM 11078A-OR. (1345-XENG-2003e)
- 6 . Provided a KALMAR, an engineer equipment requirement, engineer equipment records and forms, and reference, install forklift kit attachment per the TM 11078A-OR. (1345-XENG-2003f)



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX B - EQUIPMENT OPERATIONS

LESSON ID: NCOO - B02

HOURS: 38.00

TYPE: Task Oriented

CATEGORY: Training

TITLE: Container Handler Operations

7. Provided a KALMAR, an engineer equipment requirement, engineer equipment records and forms, and reference, complete operational records per the TM 4700-15/1\_. (1345-XENG-2003g)

**NOTE(S):**

<b><u>REFERENCE - TITLE</u></b>	<b><u>PUBLICATION ID</u></b>	<b><u>CHAPTER/PAGE</u></b>
Ground Equipment Record Procedures	TM 4700-15/1_	
Rough Terrain Container Handler (RTCH) RT 240 V2; 53,000LB Capacity; 4X4	TM 11078A-OR	



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX B - EQUIPMENT OPERATIONS

LESSON ID: NCOO - B03

HOURS: 68.00

TYPE: Task Oriented

CATEGORY: Training

TITLE: 621B Operations

METHOD	HOURS	S:I RATIO
D	1.00	25 : 2
L	2.00	25 : 1
PA	65.00	25 : 5

MEDIA: AIO, DB, HO, PPT, TM

TERMINAL LEARNING OBJECTIVE(S)

- 1 . Provided a 621B Scraper, an engineer equipment requirement, engineer equipment records and forms, and references, operate the 621B Scraper to safely meet operational requirements with no injury to personnel or damage to the equipment per the references. (1345-XENG-2001)

ENABLING LEARNING OBJECTIVE(S)

- 1 . Without the aid of reference, identify the characteristics of the 621B per the TM 5-3805-248-14&P-1. (1345-XENG-2001a)
- 2 . Provided a 621B, engineer equipment records and forms, and with the aid of reference, initiate operator forms and records per the TM 4700-15/1\_. (1345-XENG-2001b)
- 3 . Provided a 621B, engineer equipment records and forms, tools, petroleum, oils, and lubricants, and with the aid of reference, perform operation checks (before, during, and after) per the TM 5-3805-248-14&P-1. (1345-XENG-2001c)
- 4 . Provided a 621B, engineer equipment records and forms, move 621B to job site per the TM 5-3805-248-14&P-1. (1345-XENG-2001d)
- 5 . Provided a 621B, a 850JR MCT Crawler Dozer, engineer equipment records and forms, and references, perform 621B operations per the TM 5-3805-248-14&P-1, and TM 11503A-OR. (1345-XENG-2001e)
- 6 . Provided a 621B, engineer equipment records and forms, and reference, complete operational records per the TM 4700-15/1\_. (1345-XENG-2001f)





ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX B - EQUIPMENT OPERATIONS

LESSON ID: NCOO - B03

HOURS: 68.00

TYPE: Task Oriented

CATEGORY: Training

TITLE: 621B Operations

NOTE(S):

REFERENCE - TITLE

PUBLICATION ID

CHAPTER/PAGE

850 JR Crawler Dozer

TM 11503A-OR

Ground Equipment Record Procedures

TM 4700-15/1\_

TECHNICAL MANUAL FOR SCRAPER,  
EARTH MOVING, MOTORIZED DIESEL  
ENGINE DRIVEN

TM 5-3805-248-14&P-1



**ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION**

**v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS**

**ANNEX C - PROJECT MANAGEMENT**

**LESSON ID:** NCOO - A04

**HOURS:** 78.00

**TYPE:** Task Oriented

**CATEGORY:** Training

**TITLE:** Estimating for Mission Requirements

<b>METHOD</b>	<b>HOURS</b>	<b>S:I RATIO</b>
D	4.00	25 : 2
L	46.00	25 : 1
PA	28.00	25 : 2

**MEDIA:** AIO, DB, HO, PPT, TM

**TERMINAL LEARNING OBJECTIVE(S)**

- 1 . Provided a horizontal construction mission, resources, and references, prepare estimations for project production and logistical requirements to support mission requirements per the references.

(1345-XENG-2006)

**ENABLING LEARNING OBJECTIVE(S)**

- 1 . Given a horizontal construction directive, soil type, classification, state and moisture content, with the aid of references, identify weight of a specified volume per the FM 5-434. (1345-XENG-2006a)
- 2 . Given a horizontal construction directive, engineer equipment quantities and types, soil weight, with the aid of references, calculate maximum load (volume and weight), per the FM 5-434. (1345-XENG-2006b)
- 3 . Given a horizontal construction directive, engineer equipment quantities and types, specified material and weight, and with the aid of references, calculate production rates per the FM 5-434. (1345-XENG-2006c)
- 4 . Given a horizontal construction directive, production rates, with the aid of references, calculate the time requirement for mission completion per the FM 5-434. (1345-XENG-2006d)
- 5 . Given a horizontal construction directive, with the aid of references, identify the responsibilities of the NCO for logistical requirements to support a mission per the FM 5-35. (1345-XENG-2006e)

**NOTE(S):**



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX C - PROJECT MANAGEMENT

LESSON ID: NCOO - A04

HOURS: 78.00

TYPE: Task Oriented

CATEGORY: Training

TITLE: Estimating for Mission Requirements

REFERENCE - TITLE

PUBLICATION ID

CHAPTER/PAGE

Earthmoving Operations

FM 5-434

Engineer Reference and Logistical Data

FM 5-35



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX D - EXAMS

LESSON ID: NCOO - A01X(W)

HOURS: 1.00

TYPE: Exam

CATEGORY: Training

TITLE: Ground Safety/ORM

METHOD	HOURS	S:I RATIO
X(W)	1.00	25 : 1

MEDIA: TSTBK

TERMINAL LEARNING OBJECTIVE(S)

- 1 . Provided a working environment with working personnel and references, conduct safety inspections to identify discrepancies in safety procedures and to provide for their immediate correction per the references. (1345-ADMN-2005)

ENABLING LEARNING OBJECTIVE(S)

- 1 . Without the aid of reference, identify references required to run a safety program per the MCO 5100.29A. (1345-ADMN-2005a)
- 2 . Without the aid of reference, identify the ORM process per the MCO3500.27. (1345-ADMN-2005b)
- 3 . Without the aid of reference, identify potential hazards per the MCO P5100.8. (1345-ADMN-2005c)
- 4 . Without the aid of reference, identify the requirements for reporting accidents per the MCO P5100.8 (1345-ADMN-2005d)
- 5 . Without the aid of reference, identify safety-training requirements of personnel per the MCO P5100.8. (1345-ADMN-2005e)

NOTE(S):

<u>REFERENCE - TITLE</u>	<u>PUBLICATION ID</u>	<u>CHAPTER/PAGE</u>
Marine Corps Occupational Safety and Health (OSH) Program Manual	NAVMC DIR 5100.8_	
Marine Corps Safety Program	MCO 5100.29_	
Operational Risk Management (ORM)	MCO 3500.27_	



**Date: 20131008**

**ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION**

**v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS**

**ANNEX D - EXAMS**

**LESSON ID:** NCOO - A01X(W)

**HOURS:** 1.00

**TYPE:** Exam

**CATEGORY:** Training

**TITLE:** Ground Safety/ORM



**ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION**

**v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS**

**ANNEX D - EXAMS**

**LESSON ID:** NCOO - A02X(P)

**HOURS:** 4.00

**TYPE:** Exam

**CATEGORY:** Training

**TITLE:** Records and Forms

<b>METHOD</b>	<b>HOURS</b>	<b>S:I RATIO</b>
X(P)	4.00	25 : 1

**MEDIA:** HO, MCO, TM, TSTBK

**TERMINAL LEARNING OBJECTIVE(S)**

- 1 . Provided an item of Engineer Equipment, Record Jacket (NAVMC 696D), Engineer Equipment Operational Record (NAVMC 10523), Daily Dispatch-Log Record of Vehicles (NAVMC 10031), ERO (NAVMC 10245), Worksheet for Preventive Maintenance and Technical Inspection for Engineer Equipment (NAVMC 10560), Engineer Equipment Operation Log and Services Record Consolidated (NAVMC 10524), Preventive Maintenance Checks and Services Roster (NAVMC 105), EROS Condition Inspection Record, Load Test Equipment Daily Checklist (NAVMC 10925) and references, maintain engineer equipment operator records/forms, to comply with record-keeping procedures per the references. (1345-ADMN-2002)
- 2 . With a defective item, blank forms, and references, initiate a Product Quality Deficiency Report (PQDR) (SF 368) so deficiency can be corrected per the references. (1345-ADMN-2003)

**ENABLING LEARNING OBJECTIVE(S)**

- 1 . With the aid of references, prepare the records/forms per the references. (1345-ADMN-2002b)
- 2 . Provided a DD Form 1575, descriptive data, and with the aid reference, complete the DD Form 1575 per the TM 4700-15/1\_. (1345-ADMN-2003a)
- 3 . Provided a DD Form 2332, descriptive data, and with the aid reference, complete the DD Form 2332 per the TM 4700-15/1\_. (1345-ADMN-2003b)
- 4 . Provided a SF 368, descriptive data, and with the aid reference, complete the SF 368 per the TM 4700-15/1\_. (1345-ADMN-2003c)

**NOTE(S):**



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX D - EXAMS

LESSON ID: NCOO - A02X(P)

HOURS: 4.00

TYPE: Exam

CATEGORY: Training

TITLE: Records and Forms

<u>REFERENCE - TITLE</u>	<u>PUBLICATION ID</u>	<u>CHAPTER/PAGE</u>
Ground Equipment Record Procedures	TM 4700-15/1_	
Inspection, Testing, and Certification of Tactical Ground Load Lifting Equipment	MCO P11262.2	
MIMMS Field Procedures Manual	MCO P4790.2_	
MIMMS-AIS Field Maintenance Procedures	UM 4790-5	



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX D - EXAMS

LESSON ID: NCOO - A02X(W)

HOURS: 1.00

TYPE: Exam

CATEGORY: Training

TITLE: Records and Forms

METHOD	HOURS	S:I RATIO
X(W)	1.00	25 : 1

**MEDIA:** HO, MCO, TM, TSTBK

**TERMINAL LEARNING OBJECTIVE(S)**

- 1 . Provided an item of Engineer Equipment, Record Jacket (NAVMC 696D), Engineer Equipment Operational Record (NAVMC 10523), Daily Dispatch-Log Record of Vehicles (NAVMC 10031), ERO (NAVMC 10245), Worksheet for Preventive Maintenance and Technical Inspection for Engineer Equipment (NAVMC 10560), Engineer Equipment Operation Log and Services Record Consolidated (NAVMC 10524), Preventive Maintenance Checks and Services Roster (NAVMC 105), EROS Condition Inspection Record, Load Test Equipment Daily Checklist (NAVMC 10925) and references, maintain engineer equipment operator records/forms, to comply with record-keeping procedures per the references. (1345-ADMN-2002)

**ENABLING LEARNING OBJECTIVE(S)**

- 1 . Without the aid of references, identify engineer equipment operator records/forms per the TM 4700-15/1\_ and MCO P11262.2\_ (1345-ADMN-2002a)
- 2 . Without the aid of reference, identify records/forms that are to be maintained in the NAVMC 696D per the TM 4700-15/1\_. (1345-ADMN-2002c)

**NOTE(S):**

<b><u>REFERENCE - TITLE</u></b>	<b><u>PUBLICATION ID</u></b>	<b><u>CHAPTER/PAGE</u></b>
Ground Equipment Record Procedures	TM 4700-15/1_	
Inspection, Testing, and Certification of Tactical Ground Load Lifting Equipment	MCO P11262.2	





**ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION**

**v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS**

**ANNEX D - EXAMS**

**LESSON ID:** NCOO - A03X(W)

**HOURS:** 1.00

**TYPE:** Task Oriented

**CATEGORY:** Training

**TITLE:** Engineer Equipment Licensing Program

<b>METHOD</b>	<b>HOURS</b>	<b>S:I RATIO</b>
X(W)	1.00	25 : 1

**MEDIA:** TSTBK

**TERMINAL LEARNING OBJECTIVE(S)**

- 1 . With personnel, documentation, licensing records, and references, administer engineer equipment licensing program ensuring equipment operators are licensed per the references. (1345-ADMN-2004)

**ENABLING LEARNING OBJECTIVE(S)**

- 1 . Without the aid of reference, identify records and forms required to develop a licensing program per the TM-11275-15/4. (1345-ADMN-2004a)
- 2 . Without the aid of reference, identify responsibilities of the licensing examiner per the TM-11275-15/4. (1345-ADMN-2004b)
- 3 . Given support documentation, personnel, engineer equipment, and without the aid of reference, identify testing procedures per the TM-11275-15/4. (1345-ADMN-2004c)
- 4 . Given support documentation, personnel, engineer equipment, and without the aid of reference, identify licensing records procedures per the TM-11275-15/4. (1345-ADMN-2004d)

**NOTE(S):**

<b><u>REFERENCE - TITLE</u></b>	<b><u>PUBLICATION ID</u></b>	<b><u>CHAPTER/PAGE</u></b>
Ground Equipment Record Procedures	TM 4700-15/1_	
Principal Technical Characteristics of U.S. Marine Corps Engineer Equipment	TM 11275-15/3_	
Tactical Engineer Equipment Licensing Manual	TM 11275-15/4	



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX D - EXAMS

LESSON ID: NCOO - A04X(W)a

HOURS: 4.00

TYPE: Exam

CATEGORY: Training

TITLE: Estimating for Mission Requirements (Scrapers)

METHOD	HOURS	S:I RATIO
X(W)	4.00	25 : 1

MEDIA: HO, TM, TSTBK

TERMINAL LEARNING OBJECTIVE(S)

- 1 . Provided a horizontal construction mission, resources, and references, prepare estimations for project production and logistical requirements to support mission requirements per the references.

(1345-XENG-2006)

ENABLING LEARNING OBJECTIVE(S)

- 1 . Given a horizontal construction directive, soil type, classification, state and moisture content, with the aid of references, identify weight of a specified volume per the FM 5-434. (1345-XENG-2006a)
- 2 . Given a horizontal construction directive, engineer equipment quantities and types, soil weight, with the aid of references, calculate maximum load (volume and weight), per the FM 5-434. (1345-XENG-2006b)
- 3 . Given a horizontal construction directive, engineer equipment quantities and types, specified material and weight, and with the aid of references, calculate production rates per the FM 5-434. (1345-XENG-2006c)
- 4 . Given a horizontal construction directive, production rates, with the aid of references, calculate the time requirement for mission completion per the FM 5-434. (1345-XENG-2006d)

NOTE(S):

REFERENCE - TITLE

Earthmoving Operations

PUBLICATION ID

FM 5-434

CHAPTER/PAGE



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX D - EXAMS

LESSON ID: NCOO - A04X(W)b

HOURS: 4.00

TYPE: Exam

CATEGORY: Training

TITLE: Estimating for Mission Requirements (Loaders)

METHOD	HOURS	S:I RATIO
X(W)	4.00	25 : 1

MEDIA: HO, TM, TSTBK

TERMINAL LEARNING OBJECTIVE(S)

- 1 . Provided a horizontal construction mission, resources, and references, prepare estimations for project production and logistical requirements to support mission requirements per the references.

(1345-XENG-2006)

ENABLING LEARNING OBJECTIVE(S)

- 1 . Given a horizontal construction directive, soil type, classification, state and moisture content, with the aid of references, identify weight of a specified volume per the FM 5-434. (1345-XENG-2006a)
- 2 . Given a horizontal construction directive, engineer equipment quantities and types, soil weight, with the aid of references, calculate maximum load (volume and weight), per the FM 5-434. (1345-XENG-2006b)
- 3 . Given a horizontal construction directive, engineer equipment quantities and types, specified material and weight, and with the aid of references, calculate production rates per the FM 5-434. (1345-XENG-2006c)
- 4 . Given a horizontal construction directive, production rates, with the aid of references, calculate the time requirement for mission completion per the FM 5-434. (1345-XENG-2006d)

NOTE(S):

REFERENCE - TITLE

Earthmoving Operations

PUBLICATION ID

FM 5-434

CHAPTER/PAGE



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX D - EXAMS

LESSON ID: NCOO - A04X(W)c

HOURS: 2.00

TYPE: Exam

CATEGORY: Training

TITLE: Estimating for Logistical Requirements

METHOD	HOURS	S:I RATIO
X(W)	2.00	25 : 1

MEDIA: HO, TM, TSTBK

TERMINAL LEARNING OBJECTIVE(S)

- 1 . Provided a horizontal construction mission, resources, and references, prepare estimations for project production and logistical requirements to support mission requirements per the references.

(1345-XENG-2006)

ENABLING LEARNING OBJECTIVE(S)

- 1 . Given a horizontal construction directive, with the aid of references, identify the responsibilities of the NCO for logistical requirements to support a mission per the FM 5-35. (1345-XENG-2006e)

NOTE(S):

<u>REFERENCE - TITLE</u>	<u>PUBLICATION ID</u>	<u>CHAPTER/PAGE</u>
Earthmoving Operations	FM 5-434	
Engineer Reference and Logistical Data	FM 5-35	



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX D - EXAMS

LESSON ID: NCOO - B01X(P)a

HOURS: 10.50

TYPE: Exam

CATEGORY: Training

TITLE: Crane Operations (MAC 50)

METHOD	HOURS	S:I RATIO
X(P)	10.50	25 : 5

MEDIA: AIO, PEC, TM

TERMINAL LEARNING OBJECTIVE(S)

- 1 . Provided a MAC 50, an engineer equipment requirement, attachments, tools, engineer equipment records and forms, and references, operate the Marine All-Terrain Crane (MAC 50) to safely meet operational requirements with no injury to personnel or damage to the equipment per the references. (1345-XENG-2005)

ENABLING LEARNING OBJECTIVE(S)

- 1 . Provided a MAC 50, engineer equipment records and forms, and with the aid of reference, initiate operator records and forms per the TM 4700-15/1\_. (1345-XENG-2005b)
- 2 . Provided a MAC 50, engineer equipment records and forms, tools, petroleum, oils, and lubricants, and with the aid of reference, perform operation checks (before, during, and after) per the TM 11262A-OR/3. (1345-XENG-2005c)
- 3 . Provided a MAC 50, engineer equipment records and forms, move the crane to job site per the TM 11262A-OR/3. (1345-XENG-2005d)
- 4 . Provided a MAC 50, training aids to be lifted, and with the aid of reference, perform assigned lifts per the TM 11262A-OR/3. (1345-XENG-2005e)
- 5 . Provided a MAC 50, engineer equipment records and forms, and reference, complete operational records and forms per the TM 4700-15/1\_. (1345-XENG-2005g)

NOTE(S):

REFERENCE - TITLE

Ground Equipment Record Procedures

PUBLICATION ID

TM 4700-15/1\_

CHAPTER/PAGE



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX D - EXAMS

**LESSON ID:** NCOO - B01X(P)a

**HOURS:** 10.50

**TYPE:** Exam

**CATEGORY:** Training

**TITLE:** Crane Operations (MAC 50)

Operation/maintenance manual with repair part list TM 09166B-14&P

Operations and Operator/Crew Maintenance TM 11262A-OR/3  
Manual for all- terrain crane



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX D - EXAMS

LESSON ID: NCOO - B01X(P)b

HOURS: 7.50

TYPE: Exam

CATEGORY: Training

TITLE: Crane Operations (LRT-110)

METHOD	HOURS	S:I RATIO
X(P)	7.50	25 : 5

MEDIA: AIO, PEC, TM

TERMINAL LEARNING OBJECTIVE(S)

- 1 . Provided the LRT-110 Crane, and engineer equipment requirement, engineer equipment records and forms, and references, operate LRT-110 Crane in support of engineer operations to safely meet operational requirements with no injury to personnel or damage to equipment per the references. (1345-XENG-2002)

ENABLING LEARNING OBJECTIVE(S)

- 1 . Provided a LRT-110, engineer equipment records and forms, and with the aid of reference, initiate operator records and forms per the TM 4700-15/1\_. (1345-XENG-2002b)
- 2 . Provided a LRT-110, engineer equipment records and forms, tools, petroleum, oils, and lubricants, and with the aid of reference, perform operation checks (before, during, and after) per the TM 5-3810-305-10. (1345-XENG-2002c)
- 3 . Provided a LRT-110, engineer equipment records and forms, move crane to job site per the TM 5-3810-305-10. (1345-XENG-2002d)
- 4 . Provided a LRT-110, training aids to be lifted, and with the aid of reference, perform assigned lifts per the TM 5-3810-305-10. (1345-XENG-2002e)
- 5 . Provided a LRT-110, engineer equipment records and forms, and reference, complete operational records and forms per the TM 4700-15/1\_. (1345-XENG-2002f)

NOTE(S):

REFERENCE - TITLE

PUBLICATION ID

CHAPTER/PAGE

Ground Equipment Record Procedures

TM 4700-15/1\_

Operators manual for crane, wheel mounted,

TM 5-3810-305-10



**Date: 20131008**

**ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION**

**v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS**

**ANNEX D - EXAMS**

**LESSON ID:** NCOO - B01X(P)b

**HOURS:** 7.50

**TYPE:** Exam

**CATEGORY:** Training

**TITLE:** Crane Operations (LRT-110)  
hydraulic, light, 7 ½ ton rough terrain crane



**ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION**

**v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS**

**ANNEX D - EXAMS**

**LESSON ID:** NCOO - B01X(P)c

**HOURS:** 7.00

**TYPE:** Exam

**CATEGORY:** Training

**TITLE:** Crane Operations (Load test/ACI)

<b>METHOD</b>	<b>HOURS</b>	<b>S:I RATIO</b>
X(P)	7.00	25 : 5

**MEDIA:** AIO, HO, PEC, TM

**TERMINAL LEARNING OBJECTIVE(S)**

- 1 . Provided the LRT-110 Crane, and engineer equipment requirement, engineer equipment records and forms, and references, operate LRT-110 Crane in support of engineer operations to safely meet operational requirements with no injury to personnel or damage to equipment per the references. (1345-XENG-2002)
- 2 . Provided a MAC 50, an engineer equipment requirement, attachments, tools, engineer equipment records and forms, and references, operate the Marine All-Terrain Crane (MAC 50) to safely meet operational requirements with no injury to personnel or damage to the equipment per the references. (1345-XENG-2005)

**ENABLING LEARNING OBJECTIVE(S)**

- 1 . Provided with a LRT-110, a completed annual condition inspection, load test facilities and equipment, appropriate tools, and reference. assist test director/instructor to conduct load test per the MCO 11262.2. (1345-XENG-2002g)
- 2 . Provided with a MAC 50, a completed annual condition inspection, load test facilities and equipment, appropriate tools and reference. assist test director/instructor to conduct load test per the MCO 11262.2. (1345-XENG-2005i)

**NOTE(S):**

<b><u>REFERENCE - TITLE</u></b>	<b><u>PUBLICATION ID</u></b>	<b><u>CHAPTER/PAGE</u></b>
Inspection, Testing, and Certification of Tactical Ground Load Lifting Equipment	MCO P11262.2	
Operations and Operator/Crew Maintenance Manual for all- terrain crane	TM 11262A-OR/3	
Operators manual for crane, wheel mounted, hydraulic, light, 7 ½ ton rough terrain crane	TM 5-3810-305-10	



**Date: 20131008**

**ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION**

**v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS**

**ANNEX D - EXAMS**

**LESSON ID:** NCOO - B01X(P)c

**HOURS:** 7.00

**TYPE:** Exam

**CATEGORY:** Training

**TITLE:** Crane Operations (Load test/ACI)



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX D - EXAMS

LESSON ID: NCOO - B01X(W)a

HOURS: 1.00

TYPE: Exam

CATEGORY: Training

TITLE: Crane Operations (LRT-110)

METHOD	HOURS	S:I RATIO
X(W)	1.00	25 : 1

MEDIA: TSTBK

TERMINAL LEARNING OBJECTIVE(S)

- 1 . Provided the LRT-110 Crane, and engineer equipment requirement, engineer equipment records and forms, and references, operate LRT-110 Crane in support of engineer operations to safely meet operational requirements with no injury to personnel or damage to equipment per the references. (1345-XENG-2002)

ENABLING LEARNING OBJECTIVE(S)

- 1 . Without the aid of reference, identify the characteristics of the LRT-110 per the TM 5-3810-305-10. (1345-XENG-2002a)

NOTE(S):

REFERENCE - TITLE

Operators manual for crane, wheel mounted, hydraulic, light, 7 ½ ton rough terrain crane

PUBLICATION ID

TM 5-3810-305-10

CHAPTER/PAGE



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX D - EXAMS

LESSON ID: NCOO - B01X(W)b

HOURS: 1.00

TYPE: Exam

CATEGORY: Training

TITLE: Crane Operations (MAC 50)

METHOD	HOURS	S:I RATIO
X(W)	1.00	25 : 1

**MEDIA:** TSTBK

**TERMINAL LEARNING OBJECTIVE(S)**

- 1 . Provided a MAC 50, an engineer equipment requirement, attachments, tools, engineer equipment records and forms, and references, operate the Marine All-Terrain Crane (MAC 50) to safely meet operational requirements with no injury to personnel or damage to the equipment per the references. (1345-XENG-2005)

**ENABLING LEARNING OBJECTIVE(S)**

- 1 . Without the aid of reference, identify the characteristics of the MAC 50 per the TM 11262A-OR/3. (1345-XENG-2005a)
- 2 . Provided a MAC 50, a clamshell, tools and equipment, and with the aid of reference, identify procedures to install/remove clamshell per the TM 11262A-OR/3. (1345-XENG-2005f)

**NOTE(S):**

**REFERENCE - TITLE**

Operations and Operator/Crew Maintenance  
Manual for all- terrain crane

**PUBLICATION ID**

TM 11262A-OR/3

**CHAPTER/PAGE**



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX D - EXAMS

LESSON ID: NCOO - B01X(W)c

HOURS: 1.00

TYPE: Exam

CATEGORY: Training

TITLE: Crane Operations (load test)

METHOD	HOURS	S:I RATIO
X(W)	1.00	25 : 1

MEDIA: TSTBK

TERMINAL LEARNING OBJECTIVE(S)

- 1 . Provided a MAC 50, an engineer equipment requirement, attachments, tools, engineer equipment records and forms, and references, operate the Marine All-Terrain Crane (MAC 50) to safely meet operational requirements with no injury to personnel or damage to the equipment per the references. (1345-XENG-2005)

ENABLING LEARNING OBJECTIVE(S)

- 1 . Without the aid of reference, identify the procedures for load testing per the MCO 11262.2. (1345-XENG-2005h)

NOTE(S):

<u>REFERENCE - TITLE</u>	<u>PUBLICATION ID</u>	<u>CHAPTER/PAGE</u>
Inspection, Testing, and Certification of Tactical Ground Load Lifting Equipment	MCO P11262.2	



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX D - EXAMS

LESSON ID: NCOO - B02X(P)

HOURS: 9.00

TYPE: Exam

CATEGORY: Training

TITLE: Container Handler Operations

METHOD	HOURS	S:I RATIO
X(P)	9.00	25 : 5

MEDIA: AIO, PEC, TM

**TERMINAL LEARNING OBJECTIVE(S)**

- 1 . Provided a KALMAR, engineer equipment records and forms and references, operate the Rough Terrain Container Handler in support of engineer operations to safely meet operational requirements with no injury to personnel or damage to the equipment per the references. (1345-XENG-2003)

**ENABLING LEARNING OBJECTIVE(S)**

- 1 . Provided a KALMAR, engineer equipment records and forms, and with the aid of reference, initiate operator forms and records per the TM 4700-15/1\_. (1345-XENG-2003b)
- 2 . Provided a KALMAR, engineer equipment records and forms, tools, petroleum, oils, and lubricants, and with the aid of reference, perform operation checks (before, during, and after) per the TM 11078A-OR. (1345-XENG-2003c)
- 3 . Provided a KALMAR, an engineer equipment requirement, engineer equipment records and forms, move the KALMAR to job site per the TM 11078A-OR. (1345-XENG-2003d)
- 4 . Provided a KALMAR, containers, an engineer equipment requirement, engineer equipment records and forms, and reference, stack containers three high per the TM 11078A-OR. (1345-XENG-2003e)
- 5 . Provided a KALMAR, an engineer equipment requirement, engineer equipment records and forms, and reference, install forklift kit attachment per the TM 11078A-OR. (1345-XENG-2003f)
- 6 . Provided a KALMAR, an engineer equipment requirement, engineer equipment records and forms, and reference, complete operational records per the TM 4700-15/1\_. (1345-XENG-2003g)

**NOTE(S):**



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX D - EXAMS

LESSON ID: NCOO - B02X(P)

HOURS: 9.00

TYPE: Exam

CATEGORY: Training

TITLE: Container Handler Operations

REFERENCE - TITLE

PUBLICATION ID

CHAPTER/PAGE

Ground Equipment Record Procedures

TM 4700-15/1\_

Rough Terrain Container Handler (RTCH) RT 240 V2; 53,000LB Capacity; 4X4

TM 11078A-OR



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX D - EXAMS

LESSON ID: NCOO - B02X(W)

HOURS: 1.00

TYPE: Exam

CATEGORY: Training

TITLE: Container Handler Operations

METHOD	HOURS	S:I RATIO
X(W)	1.00	25 : 1

MEDIA: TSTBK

TERMINAL LEARNING OBJECTIVE(S)

- 1 . Provided a KALMAR, engineer equipment records and forms and references, operate the Rough Terrain Container Handler in support of engineer operations to safely meet operational requirements with no injury to personnel or damage to the equipment per the references. (1345-XENG-2003)

ENABLING LEARNING OBJECTIVE(S)

- 1 . Without the aid of reference, identify the characteristics of the KALMAR per the TM 11078A-OR. (1345-XENG-2003a)

NOTE(S):

<u>REFERENCE - TITLE</u>	<u>PUBLICATION ID</u>	<u>CHAPTER/PAGE</u>
Rough Terrain Container Handler (RTCH) RT 240 V2; 53,000LB Capacity; 4X4	TM 11078A-OR	





ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX D - EXAMS

LESSON ID: NCOO - B03X(P)

HOURS: 7.00

TYPE: Exam

CATEGORY: Training

TITLE: 621B Operations

METHOD	HOURS	S:I RATIO
X(P)	7.00	25 : 5

MEDIA: AIO, PEC, TM

TERMINAL LEARNING OBJECTIVE(S)

- 1 . Provided a 621B Scraper, an engineer equipment requirement, engineer equipment records and forms, and references, operate the 621B Scraper to safely meet operational requirements with no injury to personnel or damage to the equipment per the references. (1345-XENG-2001)

ENABLING LEARNING OBJECTIVE(S)

- 1 . Provided a 621B, engineer equipment records and forms, and with the aid of reference, initiate operator forms and records per the TM 4700-15/1\_. (1345-XENG-2001b)
- 2 . Provided a 621B, engineer equipment records and forms, tools, petroleum, oils, and lubricants, and with the aid of reference, perform operation checks (before, during, and after) per the TM 5-3805-248-14&P-1. (1345-XENG-2001c)
- 3 . Provided a 621B, engineer equipment records and forms, move 621B to job site per the TM 5-3805-248-14&P-1. (1345-XENG-2001d)
- 4 . Provided a 621B, a 850JR MCT Crawler Dozer, engineer equipment records and forms, and references, perform 621B operations per the TM 5-3805-248-14&P-1, and TM 11503A-OR. (1345-XENG-2001e)
- 5 . Provided a 621B, engineer equipment records and forms, and reference, complete operational records per the TM 4700-15/1\_. (1345-XENG-2001f)

NOTE(S):

REFERENCE - TITLE

850 JR Crawler Dozer

Ground Equipment Record Procedures

PUBLICATION ID

TM 11503A-OR

TM 4700-15/1\_

CHAPTER/PAGE



**Date: 20131008**

**ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION**

**v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS**

**ANNEX D - EXAMS**

**LESSON ID:** NCOO - B03X(P)

**HOURS:** 7.00

**TYPE:** Exam

**CATEGORY:** Training

**TITLE:** 621B Operations

TECHNICAL MANUAL FOR SCRAPER,  
EARTH MOVING, MOTORIZED DIESEL  
ENGINE DRIVEN

TM 5-3805-248-14&P-1



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX D - EXAMS

LESSON ID: NCOO - B03X(W)

HOURS: 1.00

TYPE: Exam

CATEGORY: Training

TITLE: 621B Operations Exam

METHOD	HOURS	S:I RATIO
X(W)	1.00	25 : 1

MEDIA: TSTBK

TERMINAL LEARNING OBJECTIVE(S)

- 1 . Provided a 621B Scraper, an engineer equipment requirement, engineer equipment records and forms, and references, operate the 621B Scraper to safely meet operational requirements with no injury to personnel or damage to the equipment per the references. (1345-XENG-2001)

ENABLING LEARNING OBJECTIVE(S)

- 1 . Without the aid of reference, identify the characteristics of the 621B per the TM 5-3805-248-14&P-1. (1345-XENG-2001a)

NOTE(S):

REFERENCE - TITLE

TECHNICAL MANUAL FOR SCRAPER,  
EARTH MOVING, MOTORIZED DIESEL  
ENGINE DRIVEN

PUBLICATION ID

TM 5-3805-248-14&P-1

CHAPTER/PAGE



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX D - EXAMS

LESSON ID: NCOO - E01X(W)

HOURS: 2.00

TYPE: Exam

CATEGORY: Training

TITLE: Conduct Training

METHOD	HOURS	S:I RATIO
X(W)	2.00	25 : 1

MEDIA: TSTBK

TERMINAL LEARNING OBJECTIVE(S)

- 1 . Given a T&R Manual, commander's assessment, and commander's training guidance, and with the aid of references, use a T&R Manual, selecting individual and collective T&R events to correct training deficiencies identified in the commander's training guidance. (MCCS-TRNG-2001)
  
- 2 . Given commander's training guidance, Training and Readiness manual(s), unit training records, and with the aid of references, conduct training assessment to identify current unit proficiencies and deficiencies in selected training events. (MCCS-TRNG-2002)
  
- 3 . Given a mission statement, training assessment, HHQ METL and Commander's Guidance, Training and Readiness (T&R) manual(s), PTP Requirements, and with the aid of references. Determine Training Strategy that focuses training priorities on identified deficiencies and sustains proficiency in collective events required for MET certification. (MCCS-TRNG-2003)
  
- 4 . Given a Mission Essential Task List (METL) and mission statement, Training and Readiness (T&R) manual(s), Commander's Training Guidance, existing training plans, and with the aid of references. Develop a Short Range Training Plan to convert the mid-range training plan into a 1-4 month plan that is a series of training activities and events, issuing detailed commanders training guidance, identifying and coordinating training resources, and validating the training plan, in accordance with MCRP 3-0A, Chapter 6, Section 3. (MCCS-TRNG-2004)
  
- 5 . Given a Mission Essential Task List (METL) and mission statement, a Unit Training Plan, a unit to train, training and readiness (T&R) manual(s), Commander's Training Guidance, and with the aid of references. Develop Training Schedules to include all the required information to conduct the specified training, in accordance with MCRP 3-0A, Chapter 6, Section 4. (MCCS-TRNG-2005)
  
- 6 . Given a list of training events to train, Training and Readiness (T&R) Manual(s), commander's training guidance, and with the aid of references, develop a training scenario that drives the execution of a logical progression of skills and ensures adequate time and attention is given to preparation, rehearsals, execution,



**ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION**

**v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS**

**ANNEX D - EXAMS**

**LESSON ID:** NCOO - E01X(W)

**HOURS:** 2.00

**TYPE:** Exam

**CATEGORY:** Training

**TITLE:** Conduct Training  
evaluation, and retraining. (MCCS-TRNG-2006)

7. Given the commanders training guidance, T&R Manuals, training plans, training schedules, and with the aid of references. Coordinate Unit Training addressing the five W's, {who, what, where, when, and why} for each training event to provide the requisite level of support necessary for successful training per the commander's guidance. (MCCS-TRNG-2007)
8. Given an Operational Risk Assessment Worksheet (ORAW), training materials, training plan, and with the aid of references, conduct Operational Risk Assessment to mitigate risks associated with each training event by identifying and incorporating control measures through the Operational Risk Assessment Worksheet (ORAW) in accordance with the references. (MCCS-TRNG-2008)
9. Given a specified T&R Event and references, create a performance evaluation checklist as an instrument to measure and record that the event is properly conducted and the task is performed to standard. (MCCS-TRNG-2009)
10. Given a training plan and/or training schedule, T&R Manual, and a unit to train, and with the aid of references, prepare for training to ensure that trainers, evaluators, leaders and participants are certified to execute and evaluate the training activity to established standard(s). (MCCS-TRNG-2010)
11. Given a T&R Manual and with the aid of references. Evaluate Training to determine that training events are being executed to standard in accordance with MCO 1553.3A, Paragraph 6.e and MCRP 3-0A, chapter 7. (MCCS-TRNG-2012)
12. Given a training event/activity, unit to train, evaluation data, trend analysis, and with the aid of references. Conduct After Action Reviews (AAR) Identify deficiencies in regards to collective and individual training standards and resource allocations, providing recommendations for developing trainers, adjusting the training plan, correcting deficiencies, and conducting remedial training in accordance with MCO 1553.3A, Paragraph 6.e and MCRP 3-0A, Chapter 7. (MCCS-TRNG-2013)

**ENABLING LEARNING OBJECTIVE(S)**

1. Given a T&R Manual, commander, assessment, and commander training guidance, extract critical elements from commander's training guidance and identify appropriate individual and collective training events to correct training deficiencies. (MCCS-TRNG-2001a)
2. Given a T&R Manual, commanders assessment, and commanders training guidance, and with the aid of references, chain events from the Mission Essential Task (MET) through the individual event per the MCRP 3-0B and MCO 1553.3A. (MCCS-TRNG-2001b)



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX D - EXAMS

LESSON ID: NCOO - E01X(W)

HOURS: 2.00

TYPE: Exam

CATEGORY: Training

TITLE: Conduct Training

3. Given a T&R event, commander's guidance, a unit to train, and Training and Readiness (T&R) manual(s), branch events to support a collective or individual event. (MCCS-TRNG-2001c)
4. Given a T&R event, a mission, commander's guidance, a unit to train, and Training and Readiness (T&R) manual(s), develop a training event NOT associated with the T&R manual that supports the event and is within doctrine. (MCCS-TRNG-2001d)
5. Given a list of training events, and commander's guidance, identify events to be assessed that impact proficiency in each event. (MCCS-TRNG-2002a)
6. Given a list of training events, commander's guidance and a unit to train construct a proficiency assessment matrix ensuring individual or unit is assessed on each event. (MCCS-TRNG-2002b)
7. Given a populated proficiency assessment matrix, assess the individual or units ability to conduct the event by estimating the level of proficiency for each event. (MCCS-TRNG-2002c)
8. Given a completed proficiency assessment matrix and commander's guidance, analyze assessment data to identify specific deficiencies in individual or unit readiness. (MCCS-TRNG-2002d)
9. Given a completed proficiency assessment matrix and commander's guidance, determine training readiness ensuring strengths and weaknesses have been identified. (MCCS-TRNG-2002e)
10. Given a mid range training plan from HHQ, establish formal training priorities by adhering to commander's guidance. (MCCS-TRNG-2003a)
11. Given a mid range training plan, and a list of training events, determine major training events in order to improve individual and unit readiness. (MCCS-TRNG-2004a)
12. Given major training events, proficiency assessment matrix, and findings, assign groups of branched and chained events focusing the effort for each major training event per the MCRP 3-0B and MCO 1553.3A. (MCCS-TRNG-2004b)
13. Given a mid range training plan, and a list of training events, assign formal training to white space in order to comply with HHQ commander's guidance. (MCCS-TRNG-2004c)



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX D - EXAMS

LESSON ID: NCOO - E01X(W)

HOURS: 2.00

TYPE: Exam

CATEGORY: Training

TITLE: Conduct Training

- 14 . Given a mid range training plan, and a list of training events, assign supporting training events to white space to support major training events. (MCCS-TRNG-2004d)
- 15 . Given a mid range training plan, and a list of training events, assign administrative requirements to white space in order to support major training events. (MCCS-TRNG-2004e)
- 16 . Given a short range training plan, and a list of training events, determine training events in order to improve individual and unit readiness. (MCCS-TRNG-2005a)
- 17 . Given a list of training events, determine resource requirements in order to support the training events. (MCCS-TRNG-2005b)
- 18 . Given a list of training events and resource requirements, publish a weekly training schedule according to HHQ guidance. (MCCS-TRNG-2005c)
- 19 . Given resources, develop a lane training scenario in order to support a training event. (MCCS-TRNG-2006a)
- 20 . Given the commander's training guidance, T&R Manuals, training plans, training schedules, and references, develop a letter of instruction to achieve a coordinated training event that improves unit combat readiness. (MCCS-TRNG-2007a)
- 21 . Given the commander's training guidance, T&R manuals, training plans, training schedules, and references, construct a training support request (TSR) to achieve a coordinated training event that improves unit combat readiness. (MCCS-TRNG-2007b)
- 22 . Given resources, apply the five step ORM process in order to maximize training in a safe environment. (MCCS-TRNG-2008a)
- 23 . Given resources, assess effectiveness of control measures in order to maximize training in a safe environment. (MCCS-TRNG-2008b)
- 24 . Given a specified T&R Event and references, develop a performance evaluation checklist from a T&R manual in order to support a training event. (MCCS-TRNG-2009a)



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX D - EXAMS

LESSON ID: NCOO - E01X(W)

HOURS: 2.00

TYPE: Exam

CATEGORY: Training

TITLE: Conduct Training

- 25 . Given a specified T&R Event and references, develop a performance evaluation checklist using a subject matter expert in order to support a training event. (MCCS-TRNG-2009b)
- 26 . Given a specified T&R Event and references, construct a LOI in order to coordinate the preparation and execution of a training event. (MCCS-TRNG-2010a)
- 27 . Given a T&R Manual, and a Performance Evaluation Checklist, aid of references review the PECL in accordance with MCO 1553.3A, Paragraph 6.e and MCRP 3-0A, Chapter 7. (MCCS-TRNG-2012a)
- 28 . Given a unit to train with the aid of references select evaluators in accordance with MCO 1553.3A, Paragraph 6.e and MCRP 3-0A, Chapter 7. (MCCS-TRNG-2012b)
- 29 . Given events, a unit to train, evaluators and with the aid of references prepare evaluators in accordance with MCO 1553.3A, Paragraph 6.e and MCRP 3-0A, Chapter 7. (MCCS-TRNG-2012c)
- 30 . Given a training event / activity, unit to train, a performance evaluation checklist, and with the aid of references document observed training in accordance with MCO 1553.3A, Paragraph 6.e and MCRP 3-0A, Chapter 7. (MCCS-TRNG-2012d)
- 31 . Given events a training event / activity, unit to train, evaluation data, trend analysis, and with the aid of references identify who should conduct an AAR in accordance with MCO 1553.3A, Paragraph 6.e and MCRP 3-0A, Chapter 7. (MCCS-TRNG-2013a)
- 32 . Given a training event/activity, unit to train, evaluation data, trend analysis, and with the aid of references identify when to conduct an AAR in accordance with MCO 1553.3A, Paragraph 6.e and MCRP 3-0A, Chapter 7. (MCCS-TRNG-2013b)
- 33 . Given events a training event / activity, unit to train, evaluation data, trend analysis, and with the aid of references prepare for an AAR in accordance with MCO 1553.3A, Paragraph 6.e and MCRP 3-0A, Chapter 7. (MCCS-TRNG-2013c)
- 34 . Given a training event / activity, unit to train, evaluation data, trend analysis, and with the aid of references conduct an AAR in accordance with MCO 1553.3A, Paragraph 6.e and MCRP 3-0A, Chapter 7. (MCCS-TRNG-2013d)





ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX D - EXAMS

LESSON ID: NCOO - E01X(W)

HOURS: 2.00

TYPE: Exam

CATEGORY: Training

TITLE: Conduct Training

35 . Given a training event / activity, unit to train, evaluation data, trend analysis, and with the aid of references identify when retraining is required in accordance with MCO 1553.3A, Paragraph 6.e and MCRP 3-0A, Chapter 7. (MCCS-TRNG-2013e)

**NOTE(S):**

<b><u>REFERENCE - TITLE</u></b>	<b><u>PUBLICATION ID</u></b>	<b><u>CHAPTER/PAGE</u></b>
A Leader's Guide to Lane Training	TC 25-10	
How to Conduct Training	MCRP 3-0B	
Operational Risk Management (ORM)	MCO 3500.27_	
Systems Approach to Training (SAT) Users Guide	NAVMC 1553.1_	
Unit Training Management (UTM)	MCO 1553.3B	
Unit Training Management Guide	MCRP 3-0A	



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX D - EXAMS

LESSON ID: NCOO - E02X(P)

HOURS: 8.00

TYPE: Exam

CATEGORY: Training

TITLE: Guided Discussion

METHOD	HOURS	S:I RATIO
X(P)	8.00	25 : 2

MEDIA: HO, PEC

TERMINAL LEARNING OBJECTIVE(S)

1. Given instructional materials and references, lead guided discussion to influence attitudes and ensure the transfer of knowledge. (ILC-IMPI-2100)

ENABLING LEARNING OBJECTIVE(S)

1. Given instructional materials and references, demonstrate an understanding of the definition of guided discussion based on performance, in accordance with MCRP 6-11B W/CH 1, App A. (ILC-IMPI-2100a)
2. Given instructional materials and references, develop discussion leaders outline to assist the instructor in leading the guided discussion in accordance with MCRP 6-11B W/CH 1. (ILC-IMPI-2100b)
3. Given instructional materials and references, prepare for a guided discussion to ensure guided discussion fulfills desired learning outcomes in accordance with MCRP 6-11B W/CH 1. (ILC-IMPI-2100c)
4. Given instructional materials and references, facilitate a guided discussion to fulfill desired learning outcomes in accordance with MCRP 6-11B W/CH 1. (ILC-IMPI-2100d)
5. Given instructional materials and references, evaluate the guided discussion to ensure achievement of learning outcomes in accordance with the evaluation checklist. (ILC-IMPI-2100e)

NOTE(S):

REFERENCE - TITLE

Active Training: Silberman

Marine Corps Values: A User's Guide for Discussion Leaders

PUBLICATION ID

T3EXTR Ref ISBN 0-7879-7623-7

MCRP 6-11B W/CH 1

CHAPTER/PAGE



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX D - EXAMS

**LESSON ID:** NCOO - E02X(P)

**HOURS:** 8.00

**TYPE:** Exam

**CATEGORY:** Training

**TITLE:** Guided Discussion

McKeachie's Teaching Tips: McKeachie

T3EXTRef ISBN 0-618-11649-4

Planning Programs for Adult Learners: Caffarella

T3EXTRef ISBN 0-7879-5225-7

**ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION**

**v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS**

**ANNEX D - EXAMS**

**LESSON ID:** NCOO - Post exam

**HOURS:** 1.00

**TYPE:** Exam

**CATEGORY:** Training

**TITLE:** Post Examination

<b>METHOD</b>	<b>HOURS</b>	<b>S:I RATIO</b>
X(W)	1.00	25 : 1

**MEDIA:** TSTBK

**TERMINAL LEARNING OBJECTIVE(S)**

- 1 . Provided an item of Engineer Equipment, Record Jacket (NAVMC 696D), Engineer Equipment Operational Record (NAVMC 10523), Daily Dispatch-Log Record of Vehicles (NAVMC 10031), ERO (NAVMC 10245), Worksheet for Preventive Maintenance and Technical Inspection for Engineer Equipment (NAVMC 10560), Engineer Equipment Operation Log and Services Record Consolidated (NAVMC 10524), Preventive Maintenance Checks and Services Roster (NAVMC 105), EROS Condition Inspection Record, Load Test Equipment Daily Checklist (NAVMC 10925) and references, maintain engineer equipment operator records/forms, to comply with record-keeping procedures per the references. (1345-ADMN-2002)
- 2 . With personnel, documentation, licensing records, and references, administer engineer equipment licensing program ensuring equipment operators are licensed per the references. (1345-ADMN-2004)
- 3 . Provided a working environment with working personnel and references, conduct safety inspections to identify discrepancies in safety procedures and to provide for their immediate correction per the references. (1345-ADMN-2005)
- 4 . Provided a 621B Scraper, an engineer equipment requirement, engineer equipment records and forms, and references, operate the 621B Scraper to safely meet operational requirements with no injury to personnel or damage to the equipment per the references. (1345-XENG-2001)
- 5 . Provided the LRT-110 Crane, and engineer equipment requirement, engineer equipment records and forms, and references, operate LRT-110 Crane in support of engineer operations to safely meet operational requirements with no injury to personnel or damage to equipment per the references. (1345-XENG-2002)
- 6 . Provided a KALMAR, engineer equipment records and forms and references, operate the Rough Terrain Container Handler in support of engineer operations to safely meet operational requirements with no injury to personnel or damage to the equipment per the references. (1345-XENG-2003)



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX D - EXAMS

LESSON ID: NCOO - Post exam

HOURS: 1.00

TYPE: Exam

CATEGORY: Training

TITLE: Post Examination

7. Provided a MAC 50, an engineer equipment requirement, attachments, tools, engineer equipment records and forms, and references, operate the Marine All-Terrain Crane (MAC 50) to safely meet operational requirements with no injury to personnel or damage to the equipment per the references.  
(1345-XENG-2005)
  
8. Provided a horizontal construction mission, resources, and references, prepare estimations for project production and logistical requirements to support mission requirements per the references.  
  
(1345-XENG-2006)

**ENABLING LEARNING OBJECTIVE(S)**

1. Without the aid of references, identify engineer equipment operator records/forms per the TM 4700-15/1\_ and MCO P11262.2\_ (1345-ADMN-2002a)
  
2. Without the aid of reference, identify records/forms that are to be maintained in the NAVMC 696D per the TM 4700-15/1\_. (1345-ADMN-2002c)
  
3. Without the aid of reference, identify records and forms required to develop a licensing program per the TM-11275-15/4. (1345-ADMN-2004a)
  
4. Without the aid of reference, identify responsibilities of the licensing examiner per the TM-11275-15/4. (1345-ADMN-2004b)
  
5. Given support documentation, personnel, engineer equipment, and without the aid of reference, identify testing procedures per the TM-11275-15/4. (1345-ADMN-2004c)
  
6. Given support documentation, personnel, engineer equipment, and without the aid of reference, identify licensing records procedures per the TM-11275-15/4. (1345-ADMN-2004d)
  
7. Without the aid of reference, identify references required to run a safety program per the MCO 5100.29A. (1345-ADMN-2005a)
  
8. Without the aid of reference, identify the ORM process per the MCO3500.27. (1345-ADMN-2005b)



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX D - EXAMS

LESSON ID: NCOO - Post exam

HOURS: 1.00

TYPE: Exam

CATEGORY: Training

TITLE: Post Examination

- 9 . Without the aid of reference, identify potential hazards per the MCO P5100.8. (1345-ADMN-2005c)
- 10 . Without the aid of reference, identify the requirements for reporting accidents per the MCO P5100.8 (1345-ADMN-2005d)
- 11 . Without the aid of reference, identify safety-training requirements of personnel per the MCO P5100.8. (1345-ADMN-2005e)
- 12 . Without the aid of reference, identify the characteristics of the 621B per the TM 5-3805-248-14&P-1. (1345-XENG-2001a)
- 13 . Without the aid of reference, identify the characteristics of the LRT-110 per the TM 5-3810-305-10. (1345-XENG-2002a)
- 14 . Without the aid of reference, identify the characteristics of the KALMAR per the TM 11078A-OR. (1345-XENG-2003a)
- 15 . Without the aid of reference, identify the characteristics of the MAC 50 per the TM 11262A-OR/3. (1345-XENG-2005a)
- 16 . Without the aid of reference, identify the procedures for load testing per the MCO 11262.2. (1345-XENG-2005h)
- 17 . Given a horizontal construction directive, soil type, classification, state and moisture content, with the aid of references, identify weight of a specified volume per the FM 5-434. (1345-XENG-2006a)
- 18 . Given a horizontal construction directive, engineer equipment quantities and types, soil weight, with the aid of references, calculate maximum load (volume and weight), per the FM 5-434. (1345-XENG-2006b)
- 19 . Given a horizontal construction directive, engineer equipment quantities and types, specified material and weight, and with the aid of references, calculate production rates per the FM 5-434. (1345-XENG-2006c)



## ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

## ANNEX D - EXAMS

LESSON ID: NCOO - Post exam

HOURS: 1.00

TYPE: Exam

CATEGORY: Training

TITLE: Post Examination

20 . Given a horizontal construction directive, production rates, with the aid of references, calculate the time requirement for mission completion per the FM 5-434. (1345-XENG-2006d)

**NOTE(S):**

This is an end of course examination to determine the retention of knowledge. This score will count towards the students overall GPA. Not all TLOs and ELOs will appear on this concept card because it is a written test.

<b><u>REFERENCE - TITLE</u></b>	<b><u>PUBLICATION ID</u></b>	<b><u>CHAPTER/PAGE</u></b>
850 JR Crawler Dozer	TM 11503A-OR	
Appropriate Technical Manuals		
Earthmoving Operations	FM 5-434	
Engineer Reference and Logistical Data	FM 5-35	
Ground Equipment Record Procedures	TM 4700-15/1_	
Inspection, Testing, and Certification of Tactical Ground Load Lifting Equipment	MCO P11262.2	
MIMMS Field Procedures Manual	MCO P4790.2_	
MIMMS-AIS Field Maintenance Procedures	UM 4790-5	
Marine Corps Integrated Maintenance Management System (MIMMS) Introduction Manual	MCO P4790.1_	
Marine Corps Occupational Safety and Health (OSH) Program Manual	NAVMC DIR 5100.8_	
Marine Corps Safety Program	MCO 5100.29_	
Operation/maintenance manual with repair part list	TM 09166B-14&P	
Operational Risk Management (ORM)	MCO 3500.27_	
Operations and Operator/Crew Maintenance Manual for all- terrain crane	TM 11262A-OR/3	
Operator's Manual 624KR Loader	TM 11412A-OR	
Operators manual for crane, wheel mounted, hydraulic, light, 7 ½ ton rough terrain crane	TM 5-3810-305-10	
Principal Technical Characteristics of U.S. Marine Corps Engineer Equipment	TM 11275-15/3_	



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX D - EXAMS

**LESSON ID:** NCOO - Post exam

**HOURS:** 1.00

**TYPE:** Exam

**CATEGORY:** Training

**TITLE:** Post Examination

Rough Terrain Container Handler (RTCH) RT 240 TM 11078A-OR  
V2; 53,000LB Capacity; 4X4

TECHNICAL MANUAL FOR SCRAPER,  
EARTH MOVING, MOTORIZED DIESEL  
ENGINE DRIVEN TM 5-3805-248-14&P-1

Tactical Engineer Equipment Licensing Manual TM 11275-15/4

Technical Manual; Maintenance, Earth, Scraper TM 5-3805-248-14&P-3

Truck, Dump, 7-ton, MK29/ MK30 TM 10629-10D

Unit's Standing Operating Procedures UNIT SOP



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX E - Training

LESSON ID: NCOO - E01

HOURS: 14.00

TYPE: Task Oriented

CATEGORY: Training

TITLE: Conduct Training

METHOD	HOURS	S:I RATIO
D	1.00	25 : 1
L	10.00	25 : 1
PA	3.00	25 : 1

**MEDIA:** DB, HO, PPT

**TERMINAL LEARNING OBJECTIVE(S)**

- 1 . Given a T&R Manual, commander's assessment, and commander's training guidance, and with the aid of references, use a T&R Manual, selecting individual and collective T&R events to correct training deficiencies identified in the commander's training guidance. (MCCS-TRNG-2001)
  
- 2 . Given commander's training guidance, Training and Readiness manual(s), unit training records, and with the aid of references, conduct training assessment to identify current unit proficiencies and deficiencies in selected training events. (MCCS-TRNG-2002)
  
- 3 . Given a mission statement, training assessment, HHQ METL and Commander's Guidance, Training and Readiness (T&R) manual(s), PTP Requirements, and with the aid of references. Determine Training Strategy that focuses training priorities on identified deficiencies and sustains proficiency in collective events required for MET certification. (MCCS-TRNG-2003)
  
- 4 . Given a Mission Essential Task List (METL) and mission statement, Training and Readiness (T&R) manual(s), Commander's Training Guidance, existing training plans, and with the aid of references. Develop a Short Range Training Plan to convert the mid-range training plan into a 1-4 month plan that is a series of training activities and events, issuing detailed commanders training guidance, identifying and coordinating training resources, and validating the training plan, in accordance with MCRP 3-0A, Chapter 6, Section 3. (MCCS-TRNG-2004)
  
- 5 . Given a Mission Essential Task List (METL) and mission statement, a Unit Training Plan, a unit to train, training and readiness (T&R) manual(s), Commander's Training Guidance, and with the aid of references. Develop Training Schedules to include all the required information to conduct the specified training, in accordance with MCRP 3-0A, Chapter 6, Section 4. (MCCS-TRNG-2005)



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX E - Training

LESSON ID: NCOO - E01

HOURS: 14.00

TYPE: Task Oriented

CATEGORY: Training

TITLE: Conduct Training

- 6 . Given a list of training events to train, Training and Readiness (T&R) Manual(s), commander's training guidance, and with the aid of references, develop a training scenario that drives the execution of a logical progression of skills and ensures adequate time and attention is given to preparation, rehearsals, execution, evaluation, and retraining. (MCCS-TRNG-2006)
- 7 . Given the commanders training guidance, T&R Manuals, training plans, training schedules, and with the aid of references. Coordinate Unit Training addressing the five W's, {who, what, where, when, and why} for each training event to provide the requisite level of support necessary for successful training per the commander's guidance. (MCCS-TRNG-2007)
- 8 . Given an Operational Risk Assessment Worksheet (ORAW), training materials, training plan, and with the aid of references, conduct Operational Risk Assessment to mitigate risks associated with each training event by identifying and incorporating control measures through the Operational Risk Assessment Worksheet (ORAW) in accordance with the references. (MCCS-TRNG-2008)
- 9 . Given a specified T&R Event and references, create a performance evaluation checklist as an instrument to measure and record that the event is properly conducted and the task is performed to standard. (MCCS-TRNG-2009)
- 10 . Given a training plan and/or training schedule, T&R Manual, and a unit to train, and with the aid of references, prepare for training to ensure that trainers, evaluators, leaders and participants are certified to execute and evaluate the training activity to established standard(s). (MCCS-TRNG-2010)
- 11 . Given a T&R Manual and with the aid of references. Evaluate Training to determine that training events are being executed to standard in accordance with MCO 1553.3A, Paragraph 6.e and MCRP 3-0A, chapter 7. (MCCS-TRNG-2012)
- 12 . Given a training event/activity, unit to train, evaluation data, trend analysis, and with the aid of references. Conduct After Action Reviews (AAR) Identify deficiencies in regards to collective and individual training standards and resource allocations, providing recommendations for developing trainers, adjusting the training plan, correcting deficiencies, and conducting remedial training in accordance with MCO 1553.3A, Paragraph 6.e and MCRP 3-0A, Chapter 7. (MCCS-TRNG-2013)

**ENABLING LEARNING OBJECTIVE(S)**

- 1 . Given a T&R Manual, commander, assessment, and commander training guidance, extract critical elements from commander's training guidance and identify appropriate individual and collective training events to correct training deficiencies. (MCCS-TRNG-2001a)



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX E - Training

LESSON ID: NCOO - E01

HOURS: 14.00

TYPE: Task Oriented

CATEGORY: Training

TITLE: Conduct Training

2. Given a T&R Manual, commanders assessment, and commanders training guidance, and with the aid of references, chain events from the Mission Essential Task (MET) through the individual event per the MCRP 3-0B and MCO 1553.3A. (MCCS-TRNG-2001b)
3. Given a T&R event, commander's guidance, a unit to train, and Training and Readiness (T&R) manual(s), branch events to support a collective or individual event. (MCCS-TRNG-2001c)
4. Given a T&R event, a mission, commander's guidance, a unit to train, and Training and Readiness (T&R) manual(s), develop a training event NOT associated with the T&R manual that supports the event and is within doctrine. (MCCS-TRNG-2001d)
5. Given a list of training events, and commander's guidance, identify events to be assessed that impact proficiency in each event. (MCCS-TRNG-2002a)
6. Given a list of training events, commander's guidance and a unit to train construct a proficiency assessment matrix ensuring individual or unit is assessed on each event. (MCCS-TRNG-2002b)
7. Given a populated proficiency assessment matrix, assess the individual or units ability to conduct the event by estimating the level of proficiency for each event. (MCCS-TRNG-2002c)
8. Given a completed proficiency assessment matrix and commander's guidance, analyze assessment data to identify specific deficiencies in individual or unit readiness. (MCCS-TRNG-2002d)
9. Given a completed proficiency assessment matrix and commander's guidance, determine training readiness ensuring strengths and weaknesses have been identified. (MCCS-TRNG-2002e)
10. Given a mid range training plan from HHQ, establish formal training priorities by adhering to commander's guidance. (MCCS-TRNG-2003a)
11. Given a mid range training plan, and a list of training events, determine major training events in order to improve individual and unit readiness. (MCCS-TRNG-2004a)
12. Given major training events, proficiency assessment matrix, and findings, assign groups of branched and chained events focusing the effort for each major training event per the MCRP 3-0B and MCO 1553.3A.



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX E - Training

LESSON ID: NCOO - E01

HOURS: 14.00

TYPE: Task Oriented

CATEGORY: Training

TITLE: Conduct Training  
(MCCS-TRNG-2004b)

- 13 . Given a mid range training plan, and a list of training events, assign formal training to white space in order to comply with HHQ commander's guidance. (MCCS-TRNG-2004c)
- 14 . Given a mid range training plan, and a list of training events, assign supporting training events to white space to support major training events. (MCCS-TRNG-2004d)
- 15 . Given a mid range training plan, and a list of training events, assign administrative requirements to white space in order to support major training events. (MCCS-TRNG-2004e)
- 16 . Given a short range training plan, and a list of training events, determine training events in order to improve individual and unit readiness. (MCCS-TRNG-2005a)
- 17 . Given a list of training events, determine resource requirements in order to support the training events. (MCCS-TRNG-2005b)
- 18 . Given a list of training events and resource requirements, publish a weekly training schedule according to HHQ guidance. (MCCS-TRNG-2005c)
- 19 . Given resources, develop a lane training scenario in order to support a training event. (MCCS-TRNG-2006a)
- 20 . Given the commander's training guidance, T&R Manuals, training plans, training schedules, and references, develop a letter of instruction to achieve a coordinated training event that improves unit combat readiness. (MCCS-TRNG-2007a)
- 21 . Given the commander's training guidance, T&R manuals, training plans, training schedules, and references, construct a training support request (TSR) to achieve a coordinated training event that improves unit combat readiness. (MCCS-TRNG-2007b)
- 22 . Given resources, apply the five step ORM process in order to maximize training in a safe environment. (MCCS-TRNG-2008a)
- 23 . Given resources, assess effectiveness of control measures in order to maximize training in a safe



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX E - Training

LESSON ID: NCOO - E01

HOURS: 14.00

TYPE: Task Oriented

CATEGORY: Training

TITLE: Conduct Training  
environment. (MCCS-TRNG-2008b)

- 24 . Given a specified T&R Event and references, develop a performance evaluation checklist from a T&R manual in order to support a training event. (MCCS-TRNG-2009a)
- 25 . Given a specified T&R Event and references, develop a performance evaluation checklist using a subject matter expert in order to support a training event. (MCCS-TRNG-2009b)
- 26 . Given a specified T&R Event and references, construct a LOI in order to coordinate the preparation and execution of a training event. (MCCS-TRNG-2010a)
- 27 . Given a T&R Manual, and a Performance Evaluation Checklist, aid of references review the PECL in accordance with MCO 1553.3A, Paragraph 6.e and MCRP 3-0A, Chapter 7. (MCCS-TRNG-2012a)
- 28 . Given a unit to train with the aid of references select evaluators in accordance with MCO 1553.3A, Paragraph 6.e and MCRP 3-0A, Chapter 7. (MCCS-TRNG-2012b)
- 29 . Given events, a unit to train, evaluators and with the aid of references prepare evaluators in accordance with MCO 1553.3A, Paragraph 6.e and MCRP 3-0A, Chapter 7. (MCCS-TRNG-2012c)
- 30 . Given a training event / activity, unit to train, a performance evaluation checklist, and with the aid of references document observed training in accordance with MCO 1553.3A, Paragraph 6.e and MCRP 3-0A, Chapter 7. (MCCS-TRNG-2012d)
- 31 . Given events a training event / activity, unit to train, evaluation data, trend analysis, and with the aid of references identify who should conduct an AAR in accordance with MCO 1553.3A, Paragraph 6.e and MCRP 3-0A, Chapter 7. (MCCS-TRNG-2013a)
- 32 . Given a training event/activity, unit to train, evaluation data, trend analysis, and with the aid of references identify when to conduct an AAR in accordance with MCO 1553.3A, Paragraph 6.e and MCRP 3-0A, Chapter 7. (MCCS-TRNG-2013b)
- 33 . Given events a training event / activity, unit to train, evaluation data, trend analysis, and with the aid of references prepare for an AAR in accordance with MCO 1553.3A, Paragraph 6.e and MCRP 3-0A, Chapter 7. (MCCS-TRNG-2013c)



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX E - Training

LESSON ID: NCOO - E01

HOURS: 14.00

TYPE: Task Oriented

CATEGORY: Training

TITLE: Conduct Training

34 . Given a training event / activity, unit to train, evaluation data, trend analysis, and with the aid of references conduct an AAR in accordance with MCO 1553.3A, Paragraph 6.e and MCRP 3-0A, Chapter 7. (MCCS-TRNG-2013d)

35 . Given a training event / activity, unit to train, evaluation data, trend analysis, and with the aid of references identify when retraining is required in accordance with MCO 1553.3A, Paragraph 6.e and MCRP 3-0A, Chapter 7. (MCCS-TRNG-2013e)

**NOTE(S):**

<b><u>REFERENCE - TITLE</u></b>	<b><u>PUBLICATION ID</u></b>	<b><u>CHAPTER/PAGE</u></b>
A Leader's Guide to Lane Training	TC 25-10	
How to Conduct Training	MCRP 3-0B	
Operational Risk Management (ORM)	MCO 3500.27_	
Systems Approach to Training (SAT) Users Guide	NAVMC 1553.1_	
Unit Training Management (UTM)	MCO 1553.3B	
Unit Training Management Guide	MCRP 3-0A	



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX E - Training

LESSON ID: NCOO - E02

HOURS: 8.00

TYPE: Task Oriented

CATEGORY: Training

TITLE: Guided Discussion

METHOD	HOURS	S:I RATIO
D	1.00	25 : 1
L	4.00	25 : 1
PA	3.00	25 : 2

MEDIA: DB, HO, PPT

TERMINAL LEARNING OBJECTIVE(S)

- 1 . Given instructional materials and references, lead guided discussion to influence attitudes and ensure the transfer of knowledge. (ILC-IMPI-2100)

ENABLING LEARNING OBJECTIVE(S)

- 1 . Given instructional materials and references, demonstrate an understanding of the definition of guided discussion based on performance, in accordance with MCRP 6-11B W/CH 1, App A. (ILC-IMPI-2100a)
- 2 . Given instructional materials and references, develop discussion leaders outline to assist the instructor in leading the guided discussion in accordance with MCRP 6-11B W/CH 1. (ILC-IMPI-2100b)
- 3 . Given instructional materials and references, prepare for a guided discussion to ensure guided discussion fulfills desired learning outcomes in accordance with MCRP 6-11B W/CH 1. (ILC-IMPI-2100c)
- 4 . Given instructional materials and references, facilitate a guided discussion to fulfill desired learning outcomes in accordance with MCRP 6-11B W/CH 1. (ILC-IMPI-2100d)
- 5 . Given instructional materials and references, evaluate the guided discussion to ensure achievement of learning outcomes in accordance with the evaluation checklist. (ILC-IMPI-2100e)

NOTE(S):

REFERENCE - TITLE

Active Training: Silberman

PUBLICATION ID

T3EXTR Ref ISBN 0-7879-7623-7

CHAPTER/PAGE



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX E - Training

LESSON ID: NCOO - E02

HOURS: 8.00

TYPE: Task Oriented

CATEGORY: Training

TITLE: Guided Discussion

Marine Corps Values: A User's Guide for  
Discussion Leaders

MCRP 6-11B W/CH 1

McKeachie's Teaching Tips: McKeachie

T3EXTRef ISBN 0-618-11649-4

Planning Programs for Adult Learners: Caffarella

T3EXTRef ISBN 0-7879-5225-7





ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX Z - Administrative

LESSON ID: NCOO - INPROCESS

HOURS: 8.00

TYPE: Administrative

CATEGORY: Training

TITLE: Orientation

<b>METHOD</b>	<b>HOURS</b>	<b>S:I RATIO</b>
ADMIN	8.00	25 : 1

**MEDIA:**

**NOTE(S):**

This is for student orientation, eye exam, and an inventory examination. Examination is to determine the students current level of knowledge prior to beginning instruction. This score dosen't count towards students overall GPA.

**REFERENCE - TITLE**

**PUBLICATION ID**

**CHAPTER/PAGE**



ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED  
SECTION IV - CONCEPT CARDS

ANNEX Z - Administrative

LESSON ID: NCOO - OUT PROCESS

HOURS: 10.00

TYPE: Administrative

CATEGORY: Training

TITLE: Out Process

<b>METHOD</b>	<b>HOURS</b>	<b>S:I RATIO</b>
ADMIN	10.00	25 : 1

**MEDIA:**

**NOTE(S):**

This time is used for course critiques, check out, and graduation.

**REFERENCE - TITLE**

**PUBLICATION ID**

**CHAPTER/PAGE**



**ENGINEER EQUIPMENT OPERATOR NCO- PROGRAM OF INSTRUCTION**

**v 2.0 - APPROVED**

**SECTION V - STUDENT PERFORMANCE EVALUATION**

1. Scope. Competency learning is based on the premise that learning can be evaluated by means of a criterion measure. The measurement device must duplicate the learning objective that it is measuring. Performance evaluations will be used to measure those objectives which duplicate job requirements. All other learning objectives will be measured by objective evaluation of the student's knowledge.

2. Mastery Learning. The evaluation philosophy used in this course of instruction is the mastery learning concept. This system stresses student attainment of all learning objectives for this course.

3. Evaluation of Students

a. Course Mastery. Students must master all terminal learning objectives in order to master the course.

b. Knowledge-based Learning Objectives. Objective evaluations are used to assess knowledge-based learning objectives. They are given during normal class periods, are graded in class, and provide immediate instructor and student feedback on the progress of the student.

c. Performance Learning Objectives. Objective evaluations are used to assess performance learning objectives in a situation that replicates the skills that he or she will be expected to perform in the field. Such evaluations are made by faculty member's observation using a performance checklist.

d. Students failing written or performed base examinations will be remediated on lesson objectives and retested.

e. Fitness Reports. Students will receive an academic fitness report which will not indicate a final grade or class standing, but will assess their performance. This is in keeping with the mastery learning philosophy which guides the school.

f. Commanding Officer or Academic Officer retain discretion over enforcement of the above procedures



Date: 20131008

ENGINEER EQUIPMENT OPERATOR NCO - PROGRAM OF INSTRUCTION

v 2.0 - APPROVED

SECTION VI - DISTRIBUTION LIST

<u>DISTRIBUTION</u>	<u>QUANTITY</u>
COMMARFORRES	1
COMMARFORPAC	1
COMMARFORLANT	1
Marine Corps Institute (MCI)	1

