

COMBAT ENGINEER OFFICER - PROGRAM OF INSTRUCTION

v Version 2013 - APPROVED

SECTION I - COURSE DESCRIPTIVE DATA

1. COURSE TITLE: COMBAT ENGINEER OFFICER
2. LOCATION: Marine Corps Engineer School
PSC Box 20069
Camp Lejeune, North Carolina 28542-0069.
3. COURSE ID: M03ACC2
4. OTHER SERVICE COURSE NUMBER: N/A
5. MILITARY ARTICLES AND SERVICE LIST NUMBER (MASL): P121802
6. PURPOSE: a. To provide entry level training to the Combat Engineer Officer for duty in the Operating Forces.
7. SCOPE: a. Instruction in basic and supervisory level operational and planning skills in engineering related subjects pertaining to staff administration, mobility, countermobility, survivability, demolitions, reconnaissance, **mainten** and general engineering.
8. LENGTH (PEACETIME): 79 Training Days
9. CURRICULUM BREAKDOWN (PEACETIME):
 - 624.00 Academic
 - 1.00 Computer Based Training
 - 36.50 Demonstration
 - 28.00 Field Exercise
 - 244.50 Informal Lecture
 - 213.50 Practical Application
 - 10.00 Practical Application (Individual)
 - 0.50 Test Review
 - 48.50 Performance Examination
 - 41.50 Written Examination
 - 114.00 Administrative
 - 4.00 Check Out
 - 1.00 Critique
 - 20.00 Guided Discussion
 - 1.00 Graduation
 - 2.00 Orientation
 - 41.00 Physical Conditioning
 - 41.00 Personal Hygiene
 - 4.00 TMO
10. LENGTH (MOBILIZATION): 59 Training Days

Mobilization Note: Due to the content of the course and the instructional strategy, there is no difference in the academic hours planned in the event of mobilization. MCES will teach the same course in a 6 day week, 10 hour training day basis, rather than 5 day week. For mobilization, administrative time will be minimized to the greatest extent possible and only academic hours will be used to determine mobilization training days.
11. CURRICULUM BREAKDOWN (MOBILIZATION): Same as PeaceTime
12. MAXIMUM CLASS CAPACITY: 1



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13. OPTIMUM CLASS CAPACITY: 16
14. MINIMUM CLASS CAPACITY: 6
15. CLASS FREQUENCY: 7
16. TARGET POPULATION DESCRIPTION/PREREQUISITES:
- Target Population Description: a. This course is designed for Company Grade officers (2nd Lt - Capt) who are in the accession pipeline. Student Officers will be assigned in the 1301 OccFld and receive MOS 1302 upon graduation. Most students attending the course will have little to no military engineering experience.
- Prerequisites: Rank:
- MOS:
- a. Lieutenant, graduate of The Basic School (TBS) or equivalent. Students must be physically and mentally prepared to partake in High Risk Training in accordance with Marine Corps Order 1553.2B. International military students must have an ECL score of 70 or above.
17. MOS RECEIVED: 1302 - Combat Engineer Officer
18. OCC FIELD
- CMC
 - DC I&L (LPE)
19. FUNDING
- TECOM C464
 - MARFORRES
 - MILPERS
20. REPORTING INSTRUCTIONS:
- GOVERNMENT MESSING AND BILLETING ARE AVAILABLE. (Call 910-456-8554 for officer billeting availability at Courthouse Bay)
 - Students report to Commanding Officer, Marine Corps Engineer School, Courthouse Bay, Camp Lejeune, North Carolina.
 - During working hours, report to Building BB-12 (MCES Personnel Office), second building on the right (water side along Ellen Path) after turning left at the "Y" at the end of Horn Road (Marines Road).
 - After working hours, report to the AOOD at Building BB-28 (Headquarters, MCES), first building on the left after entering Courthouse Bay (at the intersection of Horn Road and Command Drive).
 - All students will report in with original orders, OCA, Medical Record, and Dental Record.
 - Students are required to report in the Service Alpha uniform.
21. INSTRUCTOR STAFFING REQUIREMENTS: See Appendix A for Instructor Computation Worksheet.

Total Instructor Structure Authorized			Proposed Instructor Structure Increase				
6			0				
BIC	GRADE	RANK	BMOS	PMOS	BILLET DESCRIPTION	FILLED	VACANT
	O3	CAPT		1302	Safety Instructor/High Risk	1	0
	E7	GYSGT		1371	Demolition Instructor	1	0
	E7	GYSGT		1361	Instructor/Surveyor	1	0
	E6	SSGT		1371	Maintenance Management Instructor	1	0



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Total Instructor Structure Authorized 6 Proposed Instructor Structure Increase 0

BIC	GRADE	RANK	BMOS	PMOS	BILLET DESCRIPTION	FILLED	VACANT
	G09	GS-09		1712	Combat Engineer Training Instructor	1	0
	E7	GYSGT		1371	R2C/Demoliton Instructor	1	0

Comment: FY 15 BIC. Currently fill by AT-Solutions contract instructor

22. SCHOOL OVERHEAD REQUIREMENTS:Total Overhead Structure Authorized 98 Proposed Overhead Structure Increase 0

BIC	GRADE	RANK	BMOS	PMOS	BILLET DESCRIPTION	FILLED	VACANT
	E3	SN		8404	Corpsman	1	0
Comment: Currently, MCES utilizes support from HM1 Caron Clinic. Corpsman is not on MS3050 Table of Organization.							
	O6	COL		8040	Commanding Officer/School Director	1	0
	O5	LTCOL		1302	Executive Officer/Assistant School Direc	1	0
	E9	SGTMAJ		8999	Sergeant Major	1	0
	O3	CAPT		0180	Director/School Adjutant	1	0
	E7	GYSGT		0111	Admin Chief	1	0
	G07	GS-07		0986	Legal Assistant (OA)	1	0
	G06	GS-06		0318	Secretary	1	0
	E3	LCPL		0111	Personnel Clerk	1	0
	W2	CWO2		0170	Personnel Officer	1	0
	E7	GYSGT		0111	Personnel SNCOIC	1	0
	E6	SSGT		0111	Personnel Chief	1	0
	E4	CPL		0111	Personnel Clerk	1	0
	E3	LCPL		0111	Personnel Clerk	1	0
	E3	LCPL		0151	Personnel Clerk	1	0
	E3	LCPL		0111	Personnel Clerk	1	0
	E3	LCPL		0111	Personnel Clerk	1	0
	E3	LCPL		0121	Unit Diary Clerk	1	0
	O4	MAJ		1302	Director of Instruction	1	0
	E9	MGYSGT		1371	Operations Chief	1	0
	G11	GS-11		1750	Instructional Systems Specialist	1	0
	G11	GS-11		1084	Visual Information Specialist	1	0
	O3	CAPT		1302	Academic Operations Officer	1	0
	E7	GYSGT		1371	Company Operations Chief	1	0
	G12	GS-12		0346	Supervisor Logistics Management Speciali	1	0
	E6	SSGT		1345	Logistics Chief	1	0
	E7	GYSGT		0411	Maintenance Management Chief	1	0



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BIC	GRADE	RANK	BMOS	PMOS	BILLET DESCRIPTION	FILLED	VACANT		
	E6	SSGT		1345	Hazardous Materials NCO	1	0		
	E4	CPL		1345	MIMMS Clerk	1	0		
	E5	SGT		0411	MIMMS Clerk	1	0		
	E5	SGT		0411	MIMMS Clerk	1	0		
	E5	SGT		0411	MIMMS Clerk	1	0		
	E4	CPL		2111	School Armorer	1	0		
	E3	LCPL		0431	Embarkation Logistics Specialist	1	0		
	O3	CAPT		3002	Supply Fiscal Officer	1	0		
	E7	GYSGT		3043	Supply Chief	1	0		
	E5	SGT		3051	Supply Admin/Warehouse Chief	1	0		
	E4	CPL		3051	General Warehouseman	1	0		
	E5	SGT		0343	Supply Admin Clerk	1	0		
	E4	CPL		3043	Supply Admin Clerk	1	0		
	E4	CPL		3043	Supply Admin Clerk	1	0		
	E4	CPL		3043	Supply Admin Clerk	1	0		
	E3	LCPL		3043	Supply Admin Clerk	1	0		
	E3	LCPL		3051	Warehouseman	1	0		
	E6	SSGT		1345	Engineer Equipment Oper/Maint Mgmt NCO	1	0		
	E8	1STSGT		8999	H&S First Sergeant	1	0		
	E7	GYSGT		0369	Company Gunnery Sergeant	1	0		
	E5	SGT		4821	Career Planner	1	0		
	E5	SGT		8014	Assistant Manager Enlisted Recreation Ct	1	0		
	E5	SGT		8911	Building & Groundsman	1	0		
	E5	SGT		8911	Building & Groundsman	1	0		
	E7	GYSGT		1349	Equipment Operator/Maintenance Mgmt NCO	1	0		
	E4	CPL		2161	Machinist	1	0		
	E4	CPL		1316	Metal Worker	1	0		
	E4	CPL		1341	Engineer Equipment Mechanic	1	0		
	E4	CPL		1341	Engineer Equipment Mechanic	1	0		
	E4	CPL		1341	Engineer Equipment Mechanic	1	0		
	E4	CPL		1341	Engineer Equipment Mechanic	1	0		
	E4	CPL		1341	Engineer Equipment Mechanic	1	0		
	E6	SSGT		1345	Engineer Equipment Operator	1	0		
	E4	CPL		1345	Engineer Equipment Operator	1	0		
	E3	LCPL		3531	Motor Vehicle Operator	1	0		
	E6	SSGT		3529	Motor Transport Mechanic	1	0		
	E5	SGT		3531	Motor Transport Chief/Dispatcher	1	0		



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Total Overhead Structure Authorized 98Proposed Overhead Structure Increase 0

BIC	GRADE	RANK	BMOS	PMOS	BILLET DESCRIPTION	FILLED	VACANT
	E4	CPL		3533	Motor Vehicle Operator	1	0
	E4	CPL		3533	Motor Vehicle Operator	1	0
	E5	SGT		3531	Heavy Motor Transport Operator	1	0
	E5	SGT		0431	Embarkation Logistics Specialist	1	0
	E3	LCPL		3531	Motor Vehicle Operator	1	0
	O4	MAJ		1302	Company Commander	1	0
	E8	1STSGT		9999	Company First Sergeant	1	0
	E8	MSGT		1371	Course Programmer	1	0
	E5	SGT		2311	Ammo Tech	1	0
	E5	SGT		2311	Ammo Technician	1	0
	E5	SGT		2311	Ammo Technician	1	0
	E5	SGT		2311	Ammo Tech	1	0
	E7	GYSGT		1371	Academic Analyst	1	0
	G11	GS-11		1712	Training Specialist	1	0
	O3	CAPT		1302	Academic Officer	1	0
	E9	MGYSGT		1371	Academic Chief	1	0
	E8	MSGT		1371	SNCOIC General Engineering	1	0
	E7	GYSGT		1371	Company GySgt/Instructor	1	0
	E4	CPL		3043	Supply NCO	1	0
	E6	SSGT		1342	Instructor	1	0
	E4	CPL		2311	Ammo Technician	1	0
	E3	LCPL		3521	Motor Transport Mechanic	1	0
	E3	LCPL		3531	Motor Vehicle Operator	1	0
	E3	LCPL		3531	Motor Vehicle Operator	1	0
	E3	LCPL		3531	Motor Vehicle Operator	1	0
	E3	LCPL		3531	Motor Vehicle Operator	1	0
	G13	GS-13		0301	Operations Officer	1	0
	G12	GS-12		0343	Training and Education Branch Head	1	0
	G07	GS-07		0301	International Military Student Spec/OA	1	0
	G07	GS-07		1702	Education Specialist	1	0
	G07	GS-07		0561	Budget Technician	1	0
	G09	GS-09		1712	Combat Engineer Training Instructor	1	0
	G07	GS-07		1712	Combat Engineer Training Instructor	1	0
	G09	GS-09		1712	High Risk Training Specialist	1	0
	E7	GYSGT		1349	SNCOIC/Senior Instructor	1	0



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23. TRAINING/EDUCATION SUPPORT REQUIREMENTS:

The following facility requirements are identified for this course:

FACILITY	FAC. ID	SQ FT	REQ'D	ON HAND	SHORT	TIME UTILIZED	% USED
ADR FACILITY		2000	1	1	0	N/A	N/A

Memo: Airfield Damage Repair training area with concrete pad to simulate flight line and parking apron.

BUNKER, STORAGE 10x10		100	1	1	0	N/A	N/A
BUNKER, STORAGE 20x35		700	1	1	0	N/A	N/A
BUNKER, STORAGE 6x8		48	1	1	0	N/A	N/A
CLASSROOM, 30x35		1050	4	4	0	N/A	N/A
COMPUTER LAB		1050	1	1	0	N/A	N/A

Memo: Equipped with Instructional platform, smartboard w/computer, and 30 CPUs w/monitors.

EH CLASSROOM		512	1	1	0	N/A	N/A
FIELD FORTIFICATION TRAINING SITE, 300m x 300m		27900	1	1	0	N/A	N/A
RANGE, DEMOLITION TRAINING AREA, 1 SQ KM		0	1	1	0	N/A	N/A
ROBOT STORAGE FACILITY		1050	1	1	0	N/A	N/A
SHED, STORAGE		344	1	1	0	N/A	N/A
SHED, STORAGE		426	1	1	0	N/A	N/A
SHED, STORAGE MISC		512	4	4	0	N/A	N/A
VERTICAL CONSTRUCTION TRAINING AREA, 100x100		9999	1	1	0	N/A	N/A

Notes: Training support requirements are for one iteration of the course.

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

NOMENCLATURE	NSN	UNIT	REQ'D	ON HAND	SHORT
ALCOHOL PAD		EACH	3	3	0
AURAL PROTECTORS		EACH	1	1	0
AWARDS BINDER		EACH	17	17	0
BASE STATION, MOTOROLA		EACH	3	3	0
BATTERY, 9 VOLT		EACH	3	3	0
BATTERY, AA TYPE		EACH	6	6	0
BATTERY, D TYPE		EACH	2	2	0
BATTERY, LITHIUM RECHARGEABLE (BA5590 TYPE)		EACH	20	20	0
BINDER, 3 RING, 1"		EACH	17	17	0
BINDER, 3 RING, 3"		EACH	17	17	0
BINDER, FLIGHT CREW CHECKLIST		EACH	17	17	0
BUS, 20 PASSENGER		EACH	1	1	0

Memo: Logistics/movement vehicle for ranges.



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NOMENCLATURE	NSN	UNIT	REQ'D	ON HAND	SHORT
CALCIUM CARBIDE, POWDER		EACH	1	1	0
CALCULATOR, SCIENTIFIC		EACH	17	17	0
CAMERA, DIGITAL		EACH	4	4	0
CART, AUDIOVISUAL		EACH	4	4	0
CART, COMPUTER		EACH	3	3	0
CEMENT, PORTLAND TYPE I		EACH	9	9	0
CHAIRS		EACH	34	34	0
CHEMLIGHT, GREEN		EACH	3	3	0
CHEMLIGHT, RED		EACH	1	1	0
CHEMLIGHT, YELLOW		EACH	1	1	0
CLINOMETER, SLOPE SIGHT		EACH	6	6	0
CLIP, DET CORD		EACH	60	60	0
CLIPBOARD		EACH	14	14	0
CLOTHESLINE, PLASTIC		EACH	4	4	0
COMPASS, DIVIDER		EACH	4	4	0
COMPASS, LENSATIC		EACH	5	5	0
CONCERTAINER (HESCO) 36" x 36"		EACH	4	4	0
CORD, FIBROUS, NYLON		EACH	2	2	0
DEVICE 5-19 (MGB TRAINING MODEL)		EACH	1	1	0
DISC, COMPACT CD-R/RW		EACH	4	4	0
DOOR, EXTERIOR		EACH	3	3	0
DOOR, INTERIOR		EACH	3	3	0
ENTRENCHING TOOL		EACH	4	4	0
EXPLOSIVE HAZARDS/DEVICES KIT (INERT)		EACH	1	1	0
FACE PAINT, CAMOUFLAGE		EACH	5	5	0
FENCE, CHAINLINK GALVO		EACH	10	10	0
FERTILIZER, 33% NITROGEN MIX		EACH	2	2	0
FIRING APPARATUS, BLANK (M16)		EACH	17	17	0
FLUID, PENETRATING LUB		EACH	1	1	0
FOLDER, PRESENTATION COVER		EACH	6	6	0
FORM, DA 1247		EACH	75	75	0
FORM, DA 1248		EACH	75	75	0
FORM, DA 1250		EACH	75	75	0
FORM, DA 1251		EACH	75	75	0
FORM, DA 1252		EACH	75	75	0
FORM, DA 1711-R		EACH	75	75	0
FORM, DA 2203-R DEMO RECON		EACH	75	75	0
FUEL, DIESEL JP-8		EACH	500	500	0
GLOVES, GAUNTLET		EACH	17	17	0
GPS, GARMIN HANDHELD		EACH	6	6	0
GRAVEL, 1.5" MINUS		EACH	1	1	0
GTA 05-010-033 DEMOLITION CARD		EACH	17	17	0



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NOMENCLATURE	NSN	UNIT	REQ'D	ON HAND	SHORT
GTA 05-07-013 RAPID FIELD CLASSIFICATION CARD		EACH	17	17	0
GTA 05-10-036 MINE CARD PART I		EACH	17	17	0
GTA 05-10-037 MINE CARD PART II		EACH	17	17	0
GTA 05-11-015 CRATERING		EACH	17	17	0
GTA 5-2-12, PROTRACTOR		EACH	17	17	0
GTA 5-2-5 ENGINEER RECONNAISSANCE		EACH	17	17	0
GTA 5-8-1 SURVIVABILITY POSITIONS		EACH	17	17	0
GTA 7-6-1 FIGHTING POSITIONS, INFANTRY		EACH	17	17	0
GTA 90-01-004 LOGISTICS CONVOY OPERATION		EACH	17	17	0
HARD HAT, OSHA APPROVED		EACH	17	17	0
HYGIENE/UTILITY EQUIPMENT		EACH	1	1	0
Memo: Water and power production equipment organic to Utilities Instruction Company used in Operating Forces.					
ICE MACHINE		EACH	1	1	0
IED KIT, TRAIL (INERT)		EACH	1	1	0
Memo: Items include those inert materials listed in M03ACS2 POI.					
KIT, FIRST AID, EMERGENCY		EACH	3	3	0
LINK DET AID, MGB MODEL		EACH	1	1	0
LUBRICANT, CLP		EACH	1	1	0
LUMBER, 2" x 4" x 16"		EACH	86	86	0
MAP, CAMP LEJEUNE MILITARY INSTALLATION 1:50K		EACH	10	10	0
MARKER, BLACK INK		EACH	1	1	0
MARKER, DRY ERASE		EACH	2	2	0
MARKER, HIGHLIGHTER YELLOW		EACH	2	2	0
MASONRY BLOCK, CONCRETE		EACH	20	20	0
MCRP 3-17A, ENG FLD DATA		EACH	17	17	0
MEMBRANE, WATERPROOF		EACH	3	3	0
MONITOR, COMPUTER , SVGA		EACH	20	20	0
NAILS, DUPLEX 16D		EACH	2	2	0
NAILS, GALVONIZED 8D		EACH	1	1	0
P-MCBUL-1004 BARBED WIRE ENTANGLEMENTS		EACH	17	17	0
P-MCBUL-1630 TSFC BUNKER CARD		EACH	17	17	0
P-MCBUL-167 BRIDGING CHARTS		EACH	17	17	0
P-MCBUL-1929 SANDBAG REVETMENTS		EACH	17	17	0
PAINT, BLUE		EACH	1	1	0
PAINT, OLIVE DRAB		EACH	1	1	0
PAPER, COPIER		EACH	6	6	0
PAPER, LAMINATION OVERLAY		EACH	1	1	0
PAPER, TRACING		EACH	2	2	0
PEN, ALCOHOL FINE TIP		EACH	15	15	0
PEN, BLACK INK		EACH	2	2	0
PENCIL, #2 LEAD		EACH	6	6	0



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PENCIL, GREASE, BLACK		EACH	2	2	0
PENCIL, GREASE, RED		EACH	2	2	0
PENCILS, COLORED, ASSORTED, SPECTRACOLOR		EACH	5	5	0
PILE, TIMBER, 16 INCH DIAMETER x 16 FT		EACH	3	3	0
PIPE, PVC, 5 INCH DIAMETER		EACH	3	3	0
PIPE, PVC, CAP, 5 INCH DIAMETER		EACH	4	4	0
PLYWOOD, SHEET, 3/4 x 4 x 8		EACH	2	2	0
POST, FENCE, CHAINLINK		EACH	2	2	0
POSTER BOARD		EACH	5	5	0
PRINTER, COMPUTER		EACH	4	4	0
PROJECTOR, SMARTBOARD		EACH	5	5	0
PROPELLANT, COMPRESSED C02 PRESSURE ACTIVATED		EACH	50	50	0
RADIOS, HANDHELD MOTOROLA		EACH	6	6	0
RAG, COTTON		EACH	1	1	0
RANGE FINDER, BINO FT/MT		EACH	6	6	0
REPELLENT, CHIG-AWAY		EACH	3	3	0
REPELLENT, INSECT DEET		EACH	1	1	0
ROUTE CLEARANCE SET, R2C		EACH	1	1	0
Memo: Route Reconnaissance and Clearance equipment set consisting of (2) CAT I MRAPS, (2) CAT II MRAPS, (1) CAT III MRAP, (2) VMMD vehicles, and (2) PacBot/Multi-mission.					
RULER, STEEL 10CM		EACH	17	17	0
SAND, WASHED		EACH	1	1	0
SCALE, ELECTRONIC W/STAINLESS STEEL PAN		EACH	4	4	0
SOIL, LOW ORGANIC GEO SELECT (ASSORTED)		EACH	200	200	0
STENCIL, MILITARY GRAPHIC		EACH	4	4	0
TAB, COLORED ASST		EACH	5	5	0
TABLE		EACH	10	10	0
TAMCN: A9300 COMPUTER, MULTIMEDIA CPU		EACH	20	20	0
TAMCN: B0036 EXPEDIENT REFUELING, GERS MEDIUM		EACH	1	1	0
TAMCN: B0037 EXPEDIENT REFUELING, GERS SMALL		EACH	1	1	0
TAMCN: B0039 ADR KIT, SL-3 COMPLETE		EACH	1	1	0
TAMCN: B0040 MULTI TERRAIN LOADER (MTL)		EACH	3	3	0
TAMCN: B00487G ROBOT, PACKBOT W/FASTAC		EACH	8	8	0
Memo: TAMCN listed is replacement item for TAMCN E0067 PacBot.					
TAMCN: B01022B VALLON VMR2 MINE DETECTOR		EACH	6	6	0
Memo: Nomenclature includes VMR2 Plus variants.					
TAMCN: B0395 COMPRESSOR, 260 CFM		EACH	2	2	0
TAMCN: B0471 DEMOLITION KIT, SQD		EACH	2	2	0
TAMCN: B1298 MK 2 MOD 0 MCLIC TRLR MNTD		EACH	1	1	0



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TAMCN: B1320 MINEFIELD MARKING KIT		EACH	1	1	0
TAMCN: B2150 KIT, SOIL TEST		EACH	2	2	0
TAMCN: B2210 CARPENTER KIT (FECTK)		EACH	1	1	0
TAMCN: B2260 TOOL KIT, PIONEER SQD (FECTK)		EACH	1	1	0
TAMCN: B2370 MASONRY KIT (FECTK)		EACH	1	1	0
TAMCN: B2483 BACKHOE LOADER, 420D		EACH	1	1	0
TAMCN: C2170 GOGGLES, BALLISTIC		EACH	17	17	0
TAMCN: C3215 HELMET, KEVLAR, GROUND TROOPS		EACH	21	21	0
TAMCN: C3494 BODY ARMOR, FRAG		EACH	21	21	0
TAMCN: C41442E KIT, MARINE ASSAULT BREACHER		EACH	2	2	0
Memo: MCES currently has two antiquated C4144 Assault Breacher Kits.					
TAMCN: C45487B MOTOR, 55 HP HYDR BOAT		EACH	4	4	0
TAMCN: C5262 COMBAT RUBBER RECON CRFT		EACH	4	4	0
TAMCN: E09157M LAUNCHER, RKT MK153 SMAW		EACH	5	5	0
TAMCN: E1152 GOGGLES, NIGHT VISION AN/PVS7B		EACH	17	17	0
TAMCN: E1442 M16A4, RIFLE 5.56 MM		EACH	17	17	0
TAMCN: E17107G OPTICAL SIGHT, TA31RCO-A4		EACH	17	17	0
TAMCN: E1762 SHOTGUN, 12 GAGE RIOT MODEL 500-A2		EACH	6	6	0
TAMCN: J0003 CEIA MIL-D METAL DETECTOR		EACH	3	3	0
TAMCN: J0005 VALLON VMC1 METAL DETECTOR		EACH	3	3	0
TAPE, DUCT		EACH	1	1	0
TAPE, ENGINEER CLOTH		EACH	5	5	0
TAPE, MASKING		EACH	1	1	0
TIMBER, 3" x 12" x 16"		EACH	8	8	0
TRANSPARENCY, FILM , 8 1/2 x 11		EACH	1	1	0

The following chart depicts the class V expenditures for one iteration of the course.

TASK	EXPENDED UNITS PER STUDENT	EXPENDED UNITS FOR SUPPORT
DODIC: A011	NOMENCLATURE Ctg, 12 Gauge #00 Buckshot M162	
1302-MOBL-1006	20.000 EA	0.000 EA
	DODIC Total:	0.000
DODIC: A023	NOMENCLATURE Ctg, 12 Gauge 1 Ounce Slug Commercial	
1302-MOBL-1006	4.000 EA	0.000 EA
	DODIC Total:	0.000



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The following chart depicts the class V expenditures for one iteration of the course.

TASK		EXPENDED UNITS PER STUDENT	EXPENDED UNITS FOR SUPPORT
DODIC: A080	NOMENCLATURE	Ctg, 5.56mm Blank M200 Single Round	
1302-MOBL-1005		50.000 EA	0.000 EA
	DODIC Total:	50.000	0.000
DODIC: AA54	NOMENCLATURE	Ctg, 12 Gauge, Breaching, M1030	
1302-MOBL-1006		10.000 EA	0.000 EA
	DODIC Total:	10.000	0.000
DODIC: AX14	NOMENCLATURE	Primer, Percussion 12 Gauge W209	
1302-MOBL-1006		2.000 EA	0.000 EA
	DODIC Total:	2.000	0.000
DODIC: G940	NOMENCLATURE	Gren, Hand Green Smoke M18	
1302-MOBL-1005		0.000 EA	5.000 EA
	DODIC Total:	0.000	5.000
DODIC: G945	NOMENCLATURE	Gren, Hand Yellow Smoke M18	
1302-MOBL-1005		0.000 EA	5.000 EA
	DODIC Total:	0.000	5.000
DODIC: G982	NOMENCLATURE	Gren, Hand Smoke TA M83	
1302-MOBL-1005		0.000 EA	5.000 EA
	DODIC Total:	0.000	5.000
DODIC: J007	NOMENCLATURE	Mine, Antipersonnel M18A1 with NonElec Mini Shock Tube	
1302-CMOB-1001		0.142 EA	0.000 EA
	DODIC Total:	0.142	0.000
DODIC: J143	NOMENCLATURE	Rocket Motor, 5inch MK22 Mod 4	
1302-MOBL-1005		0.000 EA	1.000 EA
	DODIC Total:	0.000	1.000
DODIC: L495	NOMENCLATURE	Flare, Surface Trip M49/A1 Series	
1302-MOBL-1005		0.000 EA	4.000 EA
	DODIC Total:	0.000	4.000
DODIC: L594	NOMENCLATURE	Sim, Proj Ground Burst M115A2	
1302-MOBL-1005		0.000 EA	12.000 EA
	DODIC Total:	0.000	12.000



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The following chart depicts the class V expenditures for one iteration of the course.

TASK		EXPENDED UNITS PER STUDENT	EXPENDED UNITS FOR SUPPORT
DODIC: M023	NOMENCLATURE	Chg, Demo Block M112 11/4 pound C4	
1302-MOBL-1010		1.000 EA	2.000 EA
1302-MOBL-1006		1.850 EA	0.000 EA
	DODIC Total:	2.850	2.000
DODIC: M028	NOMENCLATURE	Demo Kit, Bangalore Torpedo M1A2	
1302-DEMO-1002		0.071 EA	0.000 EA
	DODIC Total:	0.071	0.000
DODIC: M030	NOMENCLATURE	Chg, Demo Block TNT 1/4Pound	
1302-DEMO-1002		2.000 EA	0.000 EA
1302-MOBL-1005		0.000 EA	9.000 EA
	DODIC Total:	2.000	9.000
DODIC: M032	NOMENCLATURE	Chg, Demo Block TNT 1Pound	
1302-DEMO-1003		0.000 EA	9.000 EA
1302-DEMO-1002		1.000 EA	0.000 EA
	DODIC Total:	1.000	9.000
DODIC: M039	NOMENCLATURE	Chg, Demo Cratering 40Pound	
1302-DEMO-1002		0.071 EA	0.000 EA
	DODIC Total:	0.071	0.000
DODIC: M097	NOMENCLATURE	Cap, Blasting Non-Electric Inert	
1302-DEMO-1004		0.000 EA	0.000 EA
	DODIC Total:	0.000	0.000
DODIC: M098	NOMENCLATURE	Cap, Blasting Electric Inert	
1302-DEMO-1004		0.000 EA	0.000 EA
	DODIC Total:	0.000	0.000
DODIC: M130	NOMENCLATURE	Cap, Blasting Electric M6	
1302-DEMO-1002		1.000 EA	0.000 EA
1302-MOBL-1005		0.000 EA	12.000 EA
1302-MOBL-1006		1.000 EA	0.000 EA
	DODIC Total:	2.000	12.000
DODIC: M131	NOMENCLATURE	Cap, Blasting Non-Electric M7	
1302-MOBL-1006		1.000 EA	0.000 EA
1302-DEMO-1003		1.000 EA	8.000 EA
1302-DEMO-1004		1.000 EA	0.000 EA



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SECTION I - COURSE DESCRIPTIVE DATA

The following chart depicts the class V expenditures for one iteration of the course.

TASK		EXPENDED UNITS PER STUDENT	EXPENDED UNITS FOR SUPPORT
1302-DEMO-1002		1.000 EA	17.000 EA
	DODIC Total:	4.000	25.000
DODIC: M420	NOMENCLATURE Chg, Demo Shaped M2 Series 15Pound		
1302-DEMO-1002		0.071 EA	0.000 EA
	DODIC Total:	0.071	0.000
DODIC: M421	NOMENCLATURE Chg, Demo Shaped M3 Series 40Pound		
1302-DEMO-1002		0.071 EA	0.000 EA
	DODIC Total:	0.071	0.000
DODIC: M456	NOMENCLATURE Cord, Detonating PETN Type I Class E		
1302-DEMO-1003		20.000 EA	0.000 EA
1302-DEMO-1004		10.000 EA	0.000 EA
1302-MOBL-1006		54.200 EA	0.000 EA
1302-DEMO-1002		0.000 EA	1,000.000 EA
	DODIC Total:	84.200	1,000.000
DODIC: M468	NOMENCLATURE CORD, DET TYPE-1 (INERT) 2 ROLLS		
1302-DEMO-1004		0.000 EA	0.000 EA
	DODIC Total:	0.000	0.000
DODIC: M591	NOMENCLATURE Dynamite, Military M1		
1302-DEMO-1002		2.000 EA	0.000 EA
	DODIC Total:	2.000	0.000
DODIC: M670	NOMENCLATURE Fuse, Blasting Time M700		
1302-DEMO-1003		10.000 EA	150.000 EA
1302-DEMO-1002		3.000 EA	200.000 EA
1302-MOBL-1006		5.000 EA	0.000 EA
1302-DEMO-1004		15.000 EA	0.000 EA
	DODIC Total:	33.000	350.000
DODIC: M757	NOMENCLATURE Chg, Assembly Demo M183 Comp C4		
1302-DEMO-1004		0.142 EA	0.000 EA
1302-DEMO-1002		0.035 EA	0.000 EA
1302-DEMO-1003		0.085 EA	0.000 EA
	DODIC Total:	0.262	0.000
DODIC: M914	NOMENCLATURE Chg, Demo Inert Linear M68A2		
1302-MOBL-1005		0.000 EA	1.000 EA



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SECTION I - COURSE DESCRIPTIVE DATA

The following chart depicts the class V expenditures for one iteration of the course.

TASK		EXPENDED UNITS PER STUDENT	EXPENDED UNITS FOR SUPPORT
	DODIC Total:	0.000	1.000
DODIC: M982	NOMENCLATURE Chg, Demo Sheet 0.166 Inch Thick		
1302-DEMO-1003		0.710 EA	0.000 EA
	DODIC Total:	0.710	0.000
DODIC: ML03	NOMENCLATURE Firing Device, Demo MultiPurpose M142		
1302-MOBL-1005		0.000 EA	6.000 EA
1302-CMOB-1001		1.000 EA	0.000 EA
	DODIC Total:	1.000	6.000
DODIC: MM30	NOMENCLATURE Chg, Flexible 20 Gram PETN MK140 Mod 0		
1302-DEMO-1003		0.500 EA	0.000 EA
	DODIC Total:	0.500	0.000
DODIC: MM45	NOMENCLATURE Chg, Demo FLSC 125 Gr/Ft		
1302-DEMO-1003		0.142 EA	0.000 EA
	DODIC Total:	0.142	0.000
DODIC: MM46	NOMENCLATURE Chg, Demo FLSC 225 Gr/Ft		
1302-DEMO-1003		0.142 EA	0.000 EA
	DODIC Total:	0.142	0.000
DODIC: MM47	NOMENCLATURE Chg, Demo FLSC 400 Gr/Ft		
1302-DEMO-1003		0.142 EA	0.000 EA
	DODIC Total:	0.142	0.000
DODIC: MM48	NOMENCLATURE Chg, Demo FLSC 600 Gr/Ft		
1302-DEMO-1003		0.142 EA	0.000 EA
	DODIC Total:	0.142	0.000
DODIC: MN08	NOMENCLATURE Igniter, Time Blasting Fuse with Shock Tube Capability M81		
1302-DEMO-1002		1.000 EA	15.000 EA
1302-DEMO-1003		1.420 EA	0.000 EA
1302-DEMO-1004		1.000 EA	0.000 EA
	DODIC Total:	3.420	15.000
DODIC: MN52	NOMENCLATURE Detonator, Percussion, NonElectric MK154 Mod 0		
1302-MOBL-1006		3.000 EA	0.000 EA



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SECTION I - COURSE DESCRIPTIVE DATA

The following chart depicts the class V expenditures for one iteration of the course.

TASK		EXPENDED UNITS PER STUDENT	EXPENDED UNITS FOR SUPPORT
	DODIC Total:	3.000	0.000
DODIC: MN79	NOMENCLATURE Mine, Antipersonnel Obstacle Breaching System MK7 Mod 1		
1302-MOBL-1005		0.000 EA	1.000 EA
	DODIC Total:	0.000	1.000
DODIC: MN88	NOMENCLATURE Cap, Blasting, Non-Electric, M21 w/ 500 ft. Minitube		
1302-MOBL-1010		0.000 EA	1.000 EA
	DODIC Total:	0.000	1.000
DODIC: MN90	NOMENCLATURE Cap, Blasting, Non-Electric, M23 w/ 1000 ft. Minitube		
1302-MOBL-1010		1.000 EA	1.000 EA
	DODIC Total:	1.000	1.000

24. TASK LIST: See Appendix B.

CDD NOTES:

a. The CDD reflects 624 academic hours. MCES will conduct field exercise training throughout POI for 34 hours after academic day. 624- 34 hours equates to 590.0 actual academic hours / 7.5 academic hours per day = 78.66 or 79 training days. Other non-academic (administrative) hours are not used in computing training days since they occur before and after the academic day.

b. MCES convenes a CEO course upon the graduation of TBS. The annual throughput is expected to be 96 officers regardless of course iterations, and class size is adjusted depending if TBS graduates six, or seven, iterations in a given year.



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SECTION I - COURSE DESCRIPTIVE DATA

APPENDIX A - INSTRUCTOR COMPUTATION WORKSHEET (LOCKSTEP)

SECTION I COURSE DATA

COURSE: M03ACC2 COMBAT ENGINEER OFFICER

LOCATION: Marine Corps Engineer School
PSC Box 20069
Camp Lejeune, North Carolina 28542-0069.

Programmed Annual Input FY(15):	119	Length (avg cal days):	111
Programmed Number of Classes/Year:	7	Length (training days):	79
		Syllabus Hours:	624

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
Computer Based Training	17 /	16 =	1.06 x	1.00 =	1.06
Demonstration	17 /	3 =	5.31 x	1.00 =	5.31
Demonstration	17 /	5 =	3.19 x	6.00 =	19.13
Demonstration	17 /	8 =	2.13 x	17.00 =	36.13
Demonstration	17 /	16 =	1.06 x	12.50 =	13.28
Field Exercise	17 /	3 =	5.31 x	12.00 =	63.75
Field Exercise	17 /	5 =	3.19 x	14.00 =	44.63
Field Exercise	17 /	8 =	2.13 x	2.00 =	4.25
Informal Lecture	17 /	8 =	2.13 x	15.00 =	31.88
Informal Lecture	17 /	16 =	1.06 x	229.50 =	243.84
Performance Examination	17 /	3 =	5.31 x	16.00 =	85.00
Performance Examination	17 /	5 =	3.19 x	16.00 =	51.00
Performance Examination	17 /	8 =	2.13 x	16.50 =	35.06
Practical Application	17 /	3 =	5.31 x	38.00 =	201.88
Practical Application	17 /	5 =	3.19 x	64.00 =	204.00
Practical Application	17 /	8 =	2.13 x	87.50 =	185.94
Practical Application	17 /	16 =	1.06 x	24.00 =	25.50
Practical Application (Individual)	17 /	8 =	2.13 x	10.00 =	21.25
Test Review	17 /	16 =	1.06 x	0.50 =	0.53
Written Examination	17 /	8 =	2.13 x	7.00 =	14.88
Written Examination	17 /	16 =	1.06 x	34.50 =	36.66

TOTAL INSTRUCTOR MANHOURS PER CLASS (G): 1324.96



COMBAT ENGINEER OFFICER - PROGRAM OF INSTRUCTION

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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	<u>9274.72</u>
ANNUAL INSTRUCTOR CONTACT HOURS	X	1.26	=	ANNUAL INSTRUCTOR HOURS	<u>11686.15</u>
ANNUAL INSTRUCTOR HOURS	/	12	=	MONTHLY INSTRUCTOR HOURS	<u>973.85</u>
MONTHLY INSTRUCTOR HOURS	/	145	=	INSTRUCTORS REQUIRED	<u>6.716 = 7</u>

ICW NOTES: a. Instructor requirements computed at 7 iterations per year to execute required iterations based on TBS graduation schedule. This will equate to 3-4 officer classes conducting training at given times throughout the year.



COMBAT ENGINEER OFFICER - PROGRAM OF INSTRUCTION

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SECTION I - COURSE DESCRIPTIVE DATA

APPENDIX B - TASKLIST

DUTY: 1302-ADMN Administration

- TASKS: 1302-ADMN-1001 Manage unit training
 1302-ADMN-1002 Deliver a military brief

DUTY: 1302-CMOB Counter Mobility

- TASKS: 1302-CMOB-1001 Plan the emplacement of an obstacle
 1302-CMOB-1002 Plan construction of vehicle checkpoints as a part of an countermobility plan
 1302-CMOB-1003 Prepare an obstacle plan

DUTY: 1302-DEMO Demolitions, Munitions, and Specialized Demolitions

- TASKS: 1302-DEMO-1001 Plan for demolition operations
 1302-DEMO-1002 Detonate demolitions
 1302-DEMO-1003 Engage targets with expedient demolitions
 1302-DEMO-1004 Plan destruction of Captured Enemy Ammunition (CEA)

DUTY: 1302-EOPS Engineer Operations

- TASKS: 1302-EOPS-1001 Design concrete mix
 1302-EOPS-1002 Design concrete structures
 1302-EOPS-1003 Design concrete forms
 1302-EOPS-1004 Plan airfield damage repair (ADR Operations)
 1302-EOPS-1005 Develop mobile electric power distribution/redistribution plan
 1302-EOPS-1006 Develop field water distribution system
 1302-EOPS-1007 Arrange external support for engineer projects/operations
 1302-EOPS-1008 Conduct range operations
 1302-EOPS-1009 Establish project/operation schedules

DUTY: 1302-FUEL Bulk Fuel

- TASKS: 1302-FUEL-1001 Plan fuel operations

DUTY: 1302-HORZ Horizontal Construction

- TASKS: 1302-HORZ-1001 Plan a horizontal construction project
 1302-HORZ-1002 Plan construction of drainage systems
 1302-HORZ-1003 Conduct a field soil analysis

DUTY: 1302-MANT Maintenance

- TASKS: 1302-MANT-1001 Manage a Consolidated Memorandum Receipt (CMR)

DUTY: 1302-MOBL Mobility

- TASKS: 1302-MOBL-1001 Plan a military road
 1302-MOBL-1002 Plan dismounted route sweep operations
 1302-MOBL-1003 Plan Route and Area Clearance (RAAC) operations
 1302-MOBL-1004 Conduct mobility operations in an Improvised Explosive Device (IED) environment
 1302-MOBL-1005 Plan breaching of a complex obstacle
 1302-MOBL-1006 Conduct assault breaching into buildings



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SECTION I - COURSE DESCRIPTIVE DATA

1302-MOBL-1007	Plan the reduction of strongpoints and structures
1302-MOBL-1008	Operate a robot
1302-MOBL-1009	Identify Explosive Hazards (EH)
1302-MOBL-1010	Reduce Explosive Hazards (EH)
1302-MOBL-1011	Design a ribbon bridge/raft
1302-MOBL-1012	Design a Medium Girder Bridge (MGB)
1302-MOBL-1013	Design a non-standard bridge
1302-MOBL-1014	Classify a bridge
1302-MOBL-1015	Plan engineer aspects of a gap crossing operation
1302-MOBL-1016	Plan construction of an expeditionary airfield/landing zone

DUTY: 1302-PLAN Planning

TASKS: 1302-PLAN-1001	Participate in the Marine Corps Planning Process (MCP)
1302-PLAN-1002	Plan a base camp

DUTY: 1302-RECN RECONNAISSANCE

TASKS: 1302-RECN-1001	Conduct engineer reconnaissance operations
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DUTY: 1302-SURV Survivability

TASKS: 1302-SURV-1001	Design survivability positions
1302-SURV-1002	Plan construction of blast mitigation measures
1302-SURV-1003	Prepare a survivability plan
1302-SURV-1004	Plan construction of an entry access control point as a part of a protective barrier plan
1302-SURV-1005	Plan building hardening

DUTY: 1302-VERT Vertical Construction

TASKS: 1302-VERT-1001	Plan a vertical construction project
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TASK LIST NOTES:

- a. 34 hours of training will be accomplished during darkness to simulate limited visibility conditions/realistic training during Engineer Reconnaissance, Standard Bridging, Military Demolitions (Demo Recon), Clearing Assets/Operations, Identification of Explosive Hazards, Reduction of Explosive Hazards and Obstacle Breaching.
- b. Marine Corps Institute Distance Learning, Marine Net and computer based training applications are valid methods of instruction. Maintenance Management is taught during concept card C-01G01 "Organizational Maintenance" class to introduce GCSS-MC. MCEC will utilize self-paced computer applications resident in the GCSS-MC website to fulfill requirements per notes on concept card. The self paced course "Range Safety Officer" is located on Marine Net and will be accomplished during C-01H04CBTEX "Unit Training Management: Range Operations" concept card.
- d. 20 hours depicted on concept card Z005 "PME: Values Based Training and Leadership" are not reflective of actual hours needed. All subjects will be taught as PME, after academic hours by the class advisor (class mentoring).
- f. T&R task 1302-ADMN-1002 "Deliver a Military Brief" will be tested to standards in concept cards C-01A12XP 'Base Camp Planning Performance Exam', C01C01(PEX) 'Survivability Positions and Planning', C01D02(PEX) 'Gap Crossing Operations, C-01E02(PEX) 'Obstacle Const/Planning', and C-01D10(STX) 'Obstacle Breach Planning'.

