

Department of the Army
Pamphlet 621-92

EDUCATION

**THE US ARMY
ARMOR SCHOOL
APPRENTICESHIP
PROGRAM FOR
THE TRADE OF
ORDNANCE
ARTIFICER**

Headquarters
Department of the Army
Washington, DC
15 July 1983

UNCLASSIFIED

SUMMARY of CHANGE

DA PAM 621-92

THE US ARMY ARMOR SCHOOL APPRENTICESHIP PROGRAM FOR THE TRADE OF ORDNANCE
ARTIFICER

Not applicable.

o

o

EDUCATION

THE US ARMY ARMOR SCHOOL APPRENTICESHIP PROGRAM FOR THE TRADE OF ORDNANCE ARTIFICER

By Order of the Secretary of the Army:

JOHN A. WICKHAM, JR.
General, United States Army
Chief of Staff

Official:

ROBERT M. JOYCE
Major General, United States Army
The Adjutant General

Summary. The purpose of this pamphlet is to announce the US Army Armor School Apprenticeship Program for the Trade of Ordnance Artificer (DOT Code 632.261.018).

Applicability. This pamphlet applies to all elements of the Active Army. This pamphlet does not apply to Army National Guard and Army Reserve.

Proponent and exception authority. The proponent agency for this pamphlet is The Adjutant General Center.

Interim changes. Interim changes are not official unless they are authenticated by The Adjutant General. Users will destroy interim changes on their expiration dates unless sooner superseded or rescinded.

Suggested Improvements. Users are invited to send comments and suggested

improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) direct to Commander, US Army Armor Center and Fort Knox, ATTN: ATZK-PA-PS-ED, Fort Knox, KY 40121.

Distribution. To be distributed in accordance with DA Form 12-9A requirements for Education.

Active Army: B (Block 0422)
ARNG: None
USAR: None

History. This publication has been reorganized to make it compatible with the Army electronic publishing database. No content has been changed.

Contents (Listed by paragraph and page number)

- Purpose. • 1, *page 1*
- Applicability. • 2, *page 1*
- General. • 3, *page 1*
- Apprenticeship Program Number and Occupational Skills Area Code. • 4, *page 1*
- Ordnance Artificer Apprenticeship Program. • 56, *page 1*
- Enrollment in the Program. • 7, *page 1*
- Apprentice Log Forms. • 8, *page 1*
- Credit for Previous Experience. • 9, *page 1*
- Related Instruction Credit for Previous Military and Civilian Schooling. • 10, *page 2*
- Completion of the Program. • 11, *page 2*
- Partial Completers. • 12, *page 2*

Appendixes

- A. References, *page 3*
- B. WORK PROCESS SCHEDULE ORDNANCE ARTIFICER (DOT CODE 632.261.018), *page 4*
- C. SCHEDULE OF RELATED INSTRUCTION FOR TRADE OF ORDNANCE ARTIFICER (DOT CODE 632.261.018), *page 6*
- D. EXAMPLE OF A PARTIAL COMPLETION LETTER, *page 7*

Contents—Continued

Table List

Table C-1: Schedule Of Related Instruction For Trade Of Ordnance Artificer, *page 6*

Figure List

Figure D-1: Example Of A Partial Completion Letter, *page 7*

1. Purpose.

The purpose of this pamphlet is to announce the US Army Armor School Apprenticeship Program for the Trade of Ordnance Artificer (DOT Code 632.261.018).

2. Applicability.

This pamphlet applies to all elements of the Active Army. This pamphlet does not apply to Army National Guard and Army Reserve.

3. General.

Policies and procedures for participation in the program are contained in AR 621-5. This pamphlet is designed to be used in conjunction with that regulation.

4. Apprenticeship Program Number and Occupational Skills Area Code.

a. The apprenticeship program number and occupational skill area code are used to identify the US Army Armor School Apprenticeship Program for the Trade of Ordnance Artificer.

(1) Apprenticeship Program Number 99907

(2) Occupational Skill Area Code: 01

b. The apprenticeship program number and occupational skill area code must be entered on DA Form 4409-R (Apprenticeship Application Form) to identify the program for which the soldier is making application.

5.

Eligibility for Participation in the Program. Soldiers holding as primary or secondary one of the MOS's indicated below and serving in that MOS may participate in the program.

a. MOS 45N: Tank Turret Mechanic (M-60 Series).

b. MOS 45E: Tank Turret Mechanic (M-1).

c. MOS 45TL: Turret Mechanic (ITV/IFV/CFV).

6. Ordnance Artificer Apprenticeship Program.

This is a 6,000-hour program which leads to certification of journeyman in the trade of Ordnance Artificer. Participation in the program is voluntary, and no membership in labor unions or professional associations is required. The work process schedule and schedule of related instruction for the trade are in appendixes B and C. The purpose of the work process schedule and the schedule of related instruction are as indicated below:

a. The work process schedule reflects categories of work experience required by soldier-apprentices to qualify as journeyman Ordnance Artificers.

b. The schedule of related instruction identifies courses which may be taken by soldier-apprentices to satisfy the 432 hours of related instruction required for completion of the program.

7. Enrollment in the Program.

Soldiers may enroll in the program by contacting their installation Education Services Officers (ESO) who will explain requirements of the program and assist in the preparation of the Apprenticeship Application Form (DA Form 4409-R).

8. Apprentice Log Forms.

Apprentice log forms and instructions on use of forms will be issued to soldiers by the installation ESO at the time of registration in the program. Log instruction sheets will be maintained by soldiers in a three-ring binder. Soldier-apprentices will be required to annotate their work experiences on log sheets on a daily basis. The standard for the amount of work experience logged will be 132 hours per month. Hours logged above this standard must be justified in the remarks section of the daily work experience record and attested to by the signature and rank of the shop craft supervisor or an individual holding a comparable position. Log entries must be verified by the soldier-apprentice's immediate supervisor on a weekly basis.

9. Credit for Previous Experience.

a. Newly enrolled soldier-apprentices who have partially completed an approved federal or state registered civilian apprenticeship in the trade of Ordnance Artificer or a related trade will, upon presentation of documentation, be awarded credit for all experience related to categories of work contained in the work process schedule in Appendix B.

b. Up to 3,000 hours of credit for previous military work experience may be awarded upon presentation of authenticated documentation of satisfactory performance. Such experience must be directly related to the occupation in which the apprenticeship is being performed. Statements from previous supervisors or other such documentation which certify category of work, number of hours by category, and quality of performance will be submitted by soldier-apprentices to their installation's ESO for consideration. The ESO will forward these documents to the Commander, US Army Armor Center and Fort Knox, ATTN: ATZK-PA-PS-ED, Fort Knox, KY 40121, for final determination.

10. Related Instruction Credit for Previous Military and Civilian Schooling.

Credit for previous military and civilian schooling may be awarded to satisfy related instruction requirements by presenting certificates of course completion or other such documentation from official military records or other sources. The installation ESO will determine the amount of credit to be awarded. The ESO will consult appropriate service schools, as required, in order to determine the appropriate amount of credit for each course.

11. Completion of the Program.

Upon successful completion of the program, a certificate of Completion of Apprenticeship will be awarded by the US Department of Labor. While the award of a Certificate of Completion of Apprenticeship will not guarantee a job, it will certify that journeyman status has been attained, and should enable completers of the program to be more competitive with civilians in the trade.

12. Partial Completers.

Soldiers leaving the service prior to completion of the program will receive documented credit for that portion of the program which they did complete. This documentation may be presented for satisfaction of requirements of civilian apprenticeship programs in the trade of Ordnance Artificer or a related trade. See Appendix D.

Appendix A References

Section I Required Publications

This section contains no entries.

Section II Related Publications

This section contains no entries.

Section III Prescribed Forms

This section contains no entries.

Section IV Referenced Forms

This section contains no entries.

**Appendix B
WORK PROCESS SCHEDULE ORDNANCE ARTIFICER (DOT CODE 632.261.018)**

Hours

A. Admin 300
1. Researches and studies modifications to equipment and revisions to technical manuals.
2. Studies, learns, and applies new techniques of repair through correspondence courses, technical audio/visual courses, and skill qualification test programs.
3. Processes repair parts requests and maintains maintenance forms and records.
4. Operates tracked/wheel vehicles and maintains vehicle logbook.

B. Weapons 300
Inspects, services, troubleshoots, repairs and replaces 25mm, 105mm, 7.62mm, and calibre .50 vehicle-mounted weapons and smoke grenade launchers.

C. Mechanical 450
1. Inspects, services, troubleshoots, repairs, and replaces components of the turret and cupola traverse and elevation systems.
2. Inspects, troubleshoots, and adjusts the ballistics drive; (sighting and gun system interface).
3. Inspects, troubleshoots, repairs and replaces components of the fire control system.
4. Inspects, adjusts, and replaces components of the tanks auxiliary fire control equipment (azimuth and elevation instruments).
5. Inspects, adjusts, and replaces the ammunition storage racks.

D. Hydraulics 500
1. Inspects, services, replaces components of the gun elevating system (seals, lines, fittings and oil reservoir).
2. Inspects, services, troubleshoots, repairs and replaces components of the main gun recoil system (combination gun mount, oil replenisher system, hoses, lines, fittings, and seals).
3. Inspects, services, troubleshoots, and replaces components of the accumulator (nitrogen, oil, lines, seals and fittings).

E. Electrical 1250
1. Inspects, troubleshoots, tests, repairs, and replaces components of the gun and missile control systems (switches, relays, pins, cables, triggers, and wiring harnesses).
2. Inspects, troubleshoots, tests, repairs, and replaces components of the turret traverse system (motors, switches, cables, pins, and relays).
3. Inspects, troubleshoots, tests, repairs and replaces components of gun and missile firing and control systems (cables, pins, switches and relays).
4. Inspects, troubleshoots, tests, repairs and replaces multi circuit wiring systems (splicing, cable connectors, pins and mounts).
5. Inspects, troubleshoots, services, replaces components of the stabilization system.

F. Optics 500
Inspects, services, troubleshoots, repairs, and replaces components of the turret and cupola optical sighting system (range finder, periscopes and telescope (includes power sources, dry nitrogen purging, alignment, and synchronization)).

G. Pneumatic Pressure System 200
1. Inspects, services, repairs, and replaces components of the vehicle's gas particulate filter system (NBC system: filters, hoses, connectors, and switches).
2. Inspects and services components of the turret system requiring nitrogen pressure assistance.

H. Missile Guidance and Control 500
Inspects, services, troubleshoots, aligns, adjusts, replaces, and repairs components of the missile system.

I. Tools and Equipment 2000
1. Uses common hand tools, torque wrench and feeler gages.
2. Uses electrical repair equipment (soldering gun, iron).
3. Uses diagnostic test equipment:
(a) Multi meter (URM 105C-BU352).

- (b) Simplified Test Equipment (STE-M-1 FVS).
- (c) Synchronization Fixture Kit.
- (d) Turret Electrical System Test Set (TESTS).
- (e) Stabilization Test Set.
- (f) Test Fixture Center Angle Sensor.
- (g) Cable Test Set.
- 4. Uses wiring diagrams and schematics.
- 5. Uses hydraulic diagrams.
- 6. Uses Sight Purging kit.
- 7. Uses Accumulator Charging Regulator Kit.
- 8. Uses gunner's quadrant, MI/MIAI.

TOTAL: 6,000

Appendix C

SCHEDULE OF RELATED INSTRUCTION FOR TRADE OF ORDNANCE ARTIFICER (DOT CODE 632.261.018)

C-1. Schedule Of Related Instruction For Trade Of Ordnance Artificer

A total of 432 hours of related instruction is required in order to complete this program. Completion of any one or a combination of the below listed courses which equals 432 hours of related instruction or more may be taken to satisfy this requirement. Credit for courses not listed below may be awarded upon presentation of authenticated documentation of satisfactory completion. A synopsis of the course must be submitted with documentation. Documentation and synopsis for courses not listed below will be forwarded by the ESO to Commander, US Army Armor Center and Fort Knox, ATTN: ATZK-PA-PS-ED, Fort Knox, Kentucky, for final determination.

Table C-1
Schedule Of Related Instruction For Trade Of Ordnance Artificer

Course Number	Course Title	School	Residence	Nonresidence	Hours Credit
643-45N10	Tank Turret Mechanic (M-60 Series)	USAARMS Ft Knox, KY	X		372
643-45E10	Tank Turret Mechanic (M-1)	USAARMS Ft Knox, KY	X		316
643-45T10	ITV/IFV/CFV Turret Mechanic	USAARMS Ft Knox, KY	X		328
AR-0356	Turret Familiarization (M-60A1)	USAARMS Ft Knox, KY		X	6
AR-0450	Small Arms & Machineguns	USAARMS Ft Knox, KY		X	4
AR-0603	Maint Service Records	USAARMS Ft Knox, KY		X	3
AR-0651	Turret Familiarization (M1)	USAARMS Ft Knox, KY		X	4
AR-0654	Turret Inspection (M-60A1)	USAARMS Ft Knox, KY		X	3
OD-0004	Tank Turret Material	APG, MD		X	15
OD-0008	Organizational Maint of Tracked Vehicle Armament	APG, MD		X	17
OD-0098	Fundamentals of Electricity	APG, MD		X	24
OD-0102	Turret Artillery, Tanks (M-60, M-60A1)	APG, MD		X	16
OD-0411	Machineguns	APD, MD		X	19
OD-0606	Armament Principles	APG, MD		X	12
HK-4501	Intro to Tank Turret Maint	APG, MD		X	19
HK-4502	Fundamentals of Tank Turret Components and Systems	APG, MD		X	17
HK-4503	Intro to 105-mm Gun, Tank M-60A1 Turret	APG, MD		X	20
SY-6301	Organizational Maint for Systems Mechanic of the M60A1, M60A3, and M-728 CEV (Armament)	APG, MD		X	32
IS-0268	Organizational Maintenance	APG, MD		X	6

C-2. Title not used.

Paragraph not used.

Appendix D
EXAMPLE OF A PARTIAL COMPLETION LETTER

D-1. Example Of A Partial Completion Letter

Paragraph not used.

(Enter Office Symbol)

(Enter Date)

TO WHOM IT MAY CONCERN:

This is to certify that _____ was enrolled in the Army
(Name)

Apprenticeship Program for _____
(Name of Occupational Skill Area)

_____ During this period _____ to _____.
(Registration Number) (Date) (Date)

he successfully completed the following hours:

<i>Work Process</i>	<i>Hours</i>
A	_____
B	_____
_____	_____
_____	_____

Army Apprentice Programs are registered with the US Department of Labor and the fact that this individual did participate can be verified with the Bureau of Apprenticeship and Training, Patrick Henry Building, Washington, DC 20213, or by contacting Headquarters, TRADOC, ATTN: ATPL-AGE, Fort Monroe, VA, 23651.

Sincerely,

ESO's SIGNATURE BLOCK

Figure D-1. Example Of A Partial Completion Letter

D-2. Title not used.

Paragraph not used.

UNCLASSIFIED

PIN 032636-000

USAPA

ELECTRONIC PUBLISHING SYSTEM

OneCol FORMATTER .WIN32 Version 144

PIN: 032636-000

DATE: 04- 3-01

TIME: 13:47:05

PAGES SET: 11

DATA FILE: C:\wincomp\correx.fil

DOCUMENT: DA PAM 621-92

DOC STATUS: NEW PUBLICATION