



**HRVATSKI CENTAR ZA RAZMINIRANJE**

## **Croatian Mine Action Centre**

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# **KNOWLEDGE LEVEL AND TITLE RECEIVED IN THE FIELD OF MINE ACTION**

## QUALIFICATION LEVELS

The qualifications in humanitarian demining may be classified into three levels:

- level I (basic level of competency)
- level II (senior level of competency)
- level III (specialist level of competency)

Each senior level of competency requires a completed training course and a professional exam passed for the previous level of competency from the same domain.

The professional exam consists of theoretical and practical part.

## **LEVEL I – Basic level of competency**

The basic level of competency implies attendance of a basic training course for the conduct of humanitarian demining operations and relevant upgrade (extension with theoretical and/or practical part). Having completed the basic training course and the professional exam passed, a trainee receives a certificate for:

- deminer
- auxiliary worker
- demining machine operator
- surveyor for mine suspected area (MSA) survey

## Basic Training Course for Deminers - Curriculum

Basic course for deminers lasts for 210 teaching hours at least out of which 100 hours for the theoretical part, 100 for practical part and 10 hours for the professional exam.

Curriculum per subjects		No. of teaching hours
I General part		
II Subject		<b>100</b>
1.	Explosive ordnance	70
2.	Placing mines and mine clearance	6
3.	Method of conducting humanitarian demining operations	4
4.	Humanitarian demining: Mine search and clearance operations	4
5.	Storage, keeping and transport of explosive ordnance	4
6.	Mine and UXO destruction	4
7.	Medical support and first aid	2
8.	S&OH and protective equipment	4
9.	Stress prevention in humanitarian demining	2
III Practical part		<b>100</b>
IV Knowledge check and evaluation – PROFESSIONAL EXAM		<b>10</b>
<b>Total:</b>		<b>210</b>

# Basic Training Course for Auxiliary Workers

Basic training course for auxiliary workers lasts for 50 teaching hours at least out of which 30 hours cover the theoretical part, 10 hours for practical part (field practice) and 10 hours for the professional exam.

Curriculum per subjects		No. of teaching hours
I General part		
II Subject		<b>30</b>
1.	Explosive ordinance	20
2.	Method of conducting humanitarian demining operations	2
3.	Humanitarian demining: Mine search and demining methods and techniques	2
4.	Worksite organization	2
5.	Medical training: Medical support and first aid	2
6.	S&OH and protective equipment	2
III Practical part		<b>10</b>
IV Knowledge check and evaluation – PROFESSIONAL EXAM		<b>10</b>
<b>Total:</b>		<b>50</b>

## Basic Course for Demining Machine Operators

Basic course for demining machine operator lasts for 35 teaching hours out of which 18 hours cover the theoretical part, 14 hours are dedicated to the practical part (test site + worksite inside the MSA) and 3 teaching hours for knowledge assessment and evaluation (professional exam).

Curriculum		No. of teaching hours
I General part		2
II Subject		16
1.	Mechanical clearance – preparation of an area for humanitarian demining	4
2.	Demining machines	4
3.	Machines for waste and vegetation removal	2
4.	Conformity assessment and verification of demining machine characteristics	2
5.	Work with demining machine and maintenance	4
III Practical part		14
IV Knowledge check and evaluation – PROFESSIONAL EXAM		3
<b>Ukupno:</b>		<b>35</b>

Basic course for surveyors lasts for 44 teaching hours, out of which 35 hours are dedicated to the theoretical part, 6 hours for the practical part (field practice) and 3 hours for the knowledge assessment and evaluation. The course is attended by candidates that finished the basic course for deminers.

## Curriculum

No. of  
teaching  
hours

### I General part

### II Subject

**35**

1.	General estimate of mine situation and mine action	2
2.	Basics of topography and Geoinformation System (GIS)	4
3.	Introduction to war events and impacts on mine situation	4
4.	Prikupljanje podataka o minski sumnjivim područjima	4
5.	Mine situation data analysis and processing	4
6.	Standard operating procedures of mine suspected area marking	4
7.	Standard operating procedures of general survey and mine suspected area reduction	4
8.	Standard operating procedures of technical survey	2
9.	Record keeping and reporting	7

### III Practical part

**6**

### IV Knowledge check and evaluation – PROFESSIONAL EXAM

**3**

**Total:**

**44**

# Senior Level of Training

Upon completion of senior level of training and professional exam passed, the candidate is issued a certificate for:

- worksite leader (group leader, team leader)
- dog-handler team leader
- survey team leader
- mine and UXO destruction team leader
- QC Monitor (worksite monitor)
- QA Officer

# The Course for Worksite Leaders

Course for worksite leaders lasts for 48 teaching hours out of which 30 hours for the practical part and 15 hours for the practical part (practice + field practice) and 3 hours for the knowledge assessment and evaluation. The course is attended by candidates that finished the basic course for deminers.

**Table 5 – Curriculum for worksite managers**

Curriculum		No. of teaching hours
<b>I General part</b>		
<b>II Subject</b>		<b>30</b>
1.	Mines and UXO	8
2.	Basics of topography	6
3.	Measures of deminer safety	2
4.	Worksite organization	4
5.	Machines, devices and equipment in humanitarian demining	4
6.	Worksite organization and management	2
7.	Quality assurance	4
<b>III Practical part</b>		<b>15</b>
<b>IV Knowledge check and evaluation – PROFESSIONAL EXAM</b>		<b>3</b>
<b>Total:</b>		<b>48</b>

## Curriculum of the Course for Dog-Handler Team Leader

The course for dog-handler team leader lasts for 336 teaching hours out of which 62 hours cover the theoretical part, 258 hours cover the theoretical part (practice + field practice) and 16 hours for the knowledge assessment and evaluation. The course is attended by candidates that finished the basic course for deminers.

Curriculum		No. of teaching hours
<b>I General part</b>		<b>18</b>
<b>II Theoretical part – thematic chapters</b>		<b>44</b>
1..	Feeding, hygiene, maintenance of dwelling, transport and accomodation	6
2.	Dog illnesses and their identification, injuries and first aid	4
3.	Weekly and daily conditioning of dogs, obedience practice	8
4.	Types of training and work techniques, mine search methods	12
5.	Marking of above-ground and underground scent units, nadzemnih i podzemnih mirisnih jedinica, rewarding	4
6.	Safety measures, protective equipment, restrictions of dog-handler team use, favourable factors and working conditions	8
7.	Record keeping and internal monthly evaluation	2
<b>III Practical part</b>		<b>258</b>
<b>IV Knowledge check and evaluation – PROFESSIONAL EXAM</b>		<b>16</b>
<b>Total:</b>		<b>336</b>

## Curriculum of the Course for the Survey Team Leader

Course for the MSA Survey Team Leader lasts for 49 teaching hours at least out of which 25 hours are dedicated to the theoretical part, 20 for the practical part (practice + field practice) and 4 hours for the knowledge assessment and evaluation. The course is attended by candidates that finished the basic course for deminers, basic course for surveyors and with an adequate experience in humanitarian demining operations.

Curriculum		No. of teaching hours
I General part		
II Subject		<b>25</b>
1.	Basics of MSA definition	2
2.	Basics of topography and GIS	6
3.	Standard operating procedures for surveying (general survey, technical survey and MSA reduction)	4
4.	Introduction to Humanitarian Demining Mine Information System (MIS)	6
5.	Preparation and organization of survey	4
6.	Data collection and processing, record keeping and reporting. Entering data collected to MIS.	3
III Practical part		<b>20</b>
IV Knowledge check and evaluation – PROFESSIONAL EXAM		4

# Curriculum of the Course for the UXO Detection/Removal Team Leader

The course for the UXO Detection/Removal Team Leader lasts for 50 teaching hours at least out of which 30 hours cover the theoretical part and 17 hours cover the practical part (practice + field practice) and 3 hours for the knowledge assessment and evaluation.

The course is attended by candidates that finished the basic course for deminers and have relevant experience in humanitarian demining operations.

Curriculum		No. of teaching hours
<b>I General part</b>		
<b>II Subject</b>		<b>30</b>
1.	Description and intended use of all types of ammunition, avio bombs, air projectiles, maritime and fluvial explosive ordinances	12
2.	Construction basics and functional elements of each UXO type	4
3.	Basics of detection and removal of explosive ordinances	2
4.	Organization of UXO removal/destruction	3
5.	Estimate of a situation with UXO	2
6.	Methods and procedures of UXO removal/destruction	3
7.	Equipment for destruction and calculation of safety distances during UXO destruction	2
8.	Measures of deminer safety	2
<b>III Practical part</b>		<b>17</b>
<b>IV Knowledge check and evaluation – PROFESSIONAL EXAM</b>		<b>3</b>
<b>Total:</b>		<b>50</b>

## Curriculum of the Course for QA Officer

The course for QA Officer lasts for 47 teaching hours out of which 32 hours are dedicated to the theoretical part, 10 hours to the practical part (practice + field practice) and 5 hours to the knowledge assessment and evaluation.

Curriculum		No. of teaching hours
<b>I General part</b>		
<b>II Subject</b>		<b>32</b>
1.	Basics of topography and geoinformation system - surveying	6
2.	Mines and unexploded ordinances	6
3.	Worksite organization	4
4.	Use of demining machines, devices and equipment - efficiency	4
5.	Book of Rules and Regulations on the Method of Conducting Humanitarian Demining and record keeping	3
6.	Quality assurance- standard operating procedures	3
7.	Mine and UXO Destruction and Removal	2
	Record keeping and reporting	2
7.	First aid and measures of deminer safety	2
<b>III Practical part</b>		<b>10</b>
<b>IV Knowledge check and evaluation – PROFESSIONAL EXAM</b>		<b>5</b>
<b>Total:</b>		<b>47</b>

# Curriculum of the Course for QC Monitor

The course for the QC Monitor lasts for 65 teaching hours. 40 hours over the theoretical part, 20 hours cover the practical part (practice + field training) and 5 hours for the knowledge assessment and evaluation.

Curriculum		No. of teaching hours
<b>I General part</b>		
<b>II Subject</b>		<b>40</b>
1.	Basics of topography and geoinformation system - surveying	6
2.	Basics of planning, management and guidance	4
3.	Worksite organization	4
4.	Quality assurance and the quality control over demining operations - SOP	4
5.	Control methods and sampling for the inspection and control of demined area	2
5.	Book of Rules and Regulations on the Method of Conducting Humanitarian Demining and record keeping	4
6.	Mine and UXO destruction and removal	4
7.	Investigation of a mine accident and reporting	2
8.	Record keeping and reporting	2
9.	Use of machines, devices and equipment to be used in humanitarian demining operations	4
10	First aid and measures of deminer safety	4
<b>III Practical part</b>		<b>20</b>
<b>IV Knowledge check and evaluation – PROFESSIONAL EXAM</b>		<b>5</b>

## Higher level: Specialist training

- requires specialist training
- adequate education and experience
- candidate obtains the certificate for:
  - Instructor of education in mine action
  - Project designer in humanitarian demining

# Curriculum of the Course for the Instructor of Education in Mine Action

The course for the Instructor of Education in Mine Action lasts for 35 teaching hours out of which 30 hours cover the theoretical part, 5 hours cover the practical part (practice) and 3 hours cover the knowledge assessment and evaluation.

Curriculum		No. of teaching hours
I General part		
II Subject		<b>30</b>
1.	Mine action basics	<b>2</b>
2.	Basics of mine danger and national strategy of informing about mine danger	<b>2</b>
3.	Andragogy	<b>4</b>
4.	Knowledge of mines and UXO (types and intended use, basic characteristics and most frequent placement methods)	<b>18</b>
5.	Training programmes – Informing about mine and UXO danger	<b>2</b>
6.	Procedures in case of mine and UXO detection	<b>2</b>
III Knowledge assessment and evaluation – PROFESSIONAL EXAM		<b>5</b>
<b>Total:</b>		<b>35</b>

## Curriculum of the Course for Project Designer in Humanitarian Demining

The course for project designer in humanitarian demining lasts for 45 teaching hours out of which 30 hours are dedicated to the theoretical part, 15 hours for the practical part (practice + field training) and 5 hours for the knowledge assessment and evaluation.

Curriculum		No. of teaching hours
I General part		
II Subject		<b>30</b>
1.	Basics of topography and geoinformation system - surveying and moving inside mine suspected areas	8
2.	Basics of planning, management and guidance	2
3.	Mine Information System	4
4.	Interpretation of Military Maps and Minefield Records	4
5.	Use of GIS in drafting pilot projects and execution demining projects	4
6.	Drafting of pilot projects and execution demining projects	8
III Practical part		<b>10</b>
IV Knowledge assessment and evaluation – PROFESSIONAL EXAM		<b>5</b>
<b>Total:</b>		<b>45</b>

## Additional training

Additional training for deminers lasts for 82 teaching hours at least out of which 50 hours for the theoretical part, 30 hours for the practical part (practice + field training).

Curriculum		No. of teaching hours
I General part		
II Subject		<b>50</b>
1.	Explosive ordinance	20
2.	Methods of conducting humanitarian demining – Rules and Regulations and Standard Operating Procedures	4
3.	Humanitarian demining: demining methods and techniques	2
4.	Worksite organization	4
5.	Quality assurance and quality control	4
6.	Maintenance and storage of explosive ordinances	4
7.	Basics of mine and UXO destruction	4
8.	Medical training: Medical support and first aid	4
9.	S&OH and professional equipment	4
III Practical part		<b>30</b>
IV Knowledge assessment and evaluation – PROFESSIONAL EXAM		2
<b>Total:</b>		<b>82</b>



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