International Federation of Mountain Guides Associations (IFMGA)

Training and Testing standards for work using rope-assisted access and positioning procedures.

Personal Fall Protection Equipment (PFPE)

IFMGA RAS

IFMGA ROPE ACCESS STANDARD

The IFMGA was founded in 1965 by four national mountain guide associations from Austria, France, Switzerland, and Italy. Today 23 Member countries belong to the IFMGA, of which 15 are in Europe. The IFMGA is the only organization representing the mountain guide profession all over the world. There are currently 6,000 mountain guides in the IFMGA, of which more than 85% are in Europe.

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1. Legal Basis

The legal bases vary according to the country and must be respected.

The IFGMA training in the field of work using 'Rope-assisted Access and Positioning Techniques' (SZP) is based on current International Standards and is continually updated accordingly.

Legal bases sourced are as follows:
(Regulation Abbreviations listed mainly in German for authenticity)

Regulation (EU) 2016/425
The European Parliament and the Council Directive relating to **Personal Protective Equipment**

Council Directive 2001/45/EG
The European Parliament and Councils (see next page)

TRBS 2121 part 3	(Technical rules for operational safety - BAuA - www.baua.de) Risks to persons due to falling – Provision and use of Rope-assisted Access and Positioning Techniques
DGUV 201-057	(German Social Accident Insurance) Measures for protection against falling during construction work
DGUV 112-198	Use of Personal Fall Protection Equipment
DGUV 212-001	Work using Rope-assisted Access and Positioning Techniques
DGUV 112-199	Rescue from above or below with Personal Protection Equipment
AUVA.at and Works-Inspectorate	(General Accident Insurance Institution, Austria - www.auva.at) Personal fall Protection Equipment and Rescue equipment, Rope-assisted working at height, and Workplace positioning
BauV	(Building Regulations, Switzerland) BGBL. II Nr. 77/2014 § 6 Abs. 7 u. 8 Rope access and Positioning Techniques
PSA-V	BGLB. II Nr. 77/2014 § 4, § 7 u. §14 Personal Protection Equipment Regulation
ASchG	(Employee Protection Act) §4 Identification of hazards and determination of measures, §5 Documentation
ISO 22846-1	Rope access systems - fundamental
ISO 22846-2	Rope access systems - code of practice
Swiss BauAV 832.311.141	(Swiss Building Work Ordinance) Health & Safety Regulations for construction workers
SBV	(Swiss Mountain Guide Association) Working with Rope Access & Positioning Techniques (SZP)
TRBS	Technical Regulations for Industrial Safety / BAuA - www.baua.de -
DGUV	German Social Accident Insurance
AUVA	General Accident Insurance Institution - www.auva.at
BauAV	Building Work Ordinance Switzerland

2. Course admission requirements

Course participants
Rope access specialists and workers at height must be physically fit and in good health as well as being both mentally capable and professionally suitable for this type of work.

Minimum age requirement
Minimum age for participants in PFPE, levels 1 + 2 is 18 years.
Minimum age for level 3 is 21 years.

Personal fall Protection Equipment (PFPE) course
Any person who is in good health and fitness can apply to this basic course. A good knowledge of the respective course language (German, English, French, Italian or Spanish) is also required.

Rope access specialist / Working at height Level 1
Any person who is healthy and fit can take this basic course. A good knowledge of the respective course language (German, English, French, Italian or Spanish) is also a requirement.

Rope access specialist / Working at height Level 2
This course can be attended by people who have passed the final examinations of course Level 1 at least 6 months previously, have extensive experience with rope work and have a valid Level 1 Certification.
Good language skills in the respective course language are required (German, English, French Italian or Spanish)

Direct entry to Working at height Level 2
Direct entry to the Level 2 course is possible where:
The candidate passes the Level 1 examination, has wide ranging experience in Rope access and is recommended by a Level 3 Rope Access Specialist.
NOTE: Failure to first pass the Level 1 exam will result in the candidate having to attend and complete the whole Level 1 course and exam before proceeding to Level 2.

Rope access specialist / Working at height Level 3
This course can be attended by people who have successfully completed the final examination of course Level 2 within the previous 12 months, have extensive experience with rope work and a valid Level 2 certificate. Applicants are also recommended to have at least 250 workdays of rope access and work positioning experience.

A very good knowledge of the respective course language (German, English, French, Italian or Spanish) is also a requirement.

3. Rights & Responsibilities - Rope Access Specialists / Working at height

PFPE
Working at height or below ground is a challenging task. Even with the correct use of personal safety equipment, the work is never completely risk-free. Often very demanding, it requires a professional education and attitude in addition to the minimum physical and mental requirements as outlined below.

Level 1
Ability to work on a rope, on a construction site, supervised by a level 2 specialist (always at least two persons present who can monitor each other, secured by two independent rope systems).

Level 2
In addition to abilities acquired at Level 1, further skills such as monitoring, installing, anchoring ropes and rescue.
At least one Level 2 specialist is present on each construction site.

Level 3
In addition to Levels 1 + 2; ability to analyse, plan, lead.
Establish safety models, define, and implement safety objectives.
Establish safety regulations; identify potential hazards, risk-assessment, plan safety measures and checks. Organise in an emergency, implement a rescue concept, be aware of health & safety guards.
A level 3 qualified person must be jointly responsible for each project

3.1 Further training

PFPE Qualified persons are recommended to take a revision course every 2-3 years
Rope access specialists/ Working at height Levels 1, 2 and 3 must retrain at least every 2 years.

Duration: 1 day

4. Training course description

4.1 Personal Fall Protection Equipment (PFPE)

Target group
Persons working at height or below ground

Training objective
Basic training with practical applications for working with PFPE

Course admission
Any person who is in good health and in good physical condition can apply to this basic course. A good knowledge of the respective course language (German, English, French, Italian or Spanish) is also required.

Completion
Upon successful completion of the course a final test will be given.

Duration
1 day

4.2 Rope access specialist / Working at height Level 1

Target group
Persons working at height on ropes

Training objective
Safe and efficient work at height

Course admission
Participants with no prior knowledge or professional experience can take part in this training course. This course can be attended by any healthy and fit person. A minimum understanding in the respective course language is required (German, English, French, Italian or Spanish).

Note
The employer may only delegate especially hazardous work to employees who are professionally trained

Final Exam Level 1
Theory Examination
Simple rope manoeuvres
Easy rescue, lowering an injured person on a rope
Knot and device knowledge

Duration
5 days including examination

4.3 Rope Access Specialist / Working at height Level 2

Target group
Persons working at height on a rope

Training objective
Working safely at height

Course admission
This course can be attended by people who have passed the Level 1 examination at least 6 months previously, have extensive experience with rope work and have a valid Level 1 certification. Good language skills in the respective course language are required (German, English, French, Italian or Spanish)

Note:
The employer may only delegate especially hazardous work to professionally trained employees

Final Exam Level 2
Theory exam
Complex rope manoeuvres
Rescue by lowering or hoisting
Comprehensive knot and equipment knowledge

Duration
5 days including examination

4.4 Rope Access Specialist / Working at height Level 3

Target group
Persons in a managerial role who work at height on ropes i.e., a site Foreman, Building Manager, Safety Supervisor.

Training objective
Working safely at height, to create and implement a safety concept.

Course admission
This course can be attended by persons who have successfully completed the final Level 2 examination at least 12 months previously, have a valid Level 2 certificate and have extensive experience with rope work. Applicants are also recommended to have at least 250 workdays of rope access and work positioning experience.
Applicants are expected to have a comprehensive knowledge and proficiency in the theory and practical content of Level 1 + Level 2 training courses.
Very good linguistic knowledge of the respective course language is required (German, English, French, Italian or Spanish)

Submodules
The course is conducted in two parts:

Submodule 1
Manoeuvres Levels 1 + 2
Fault-finding course
Theory examination
Practical examination (manoeuvres from Levels 1 + 2)
Comprehensive theory and legal basics
Safety concept / safety system
Hazard identification / risk assessment
Planning safety measures

Submodule 2
At least 3 months after successfully completing Submodule 1
Discuss and determine subject of project work
Rope manoeuvres, difficult combinations and tasks
Ergonomics in rope access work
Dealing with the media
Rescue systems / rescue kit
Managing and checking Personal protective equipment (PPE)

Project work
Safety and rescue concept; to be completed between the submodules.

Note:
In exceptional cases, the level 3 course can also be carried out in one piece.
The project work must also still be submitted.

Final exam Level 3
Theory exam Submodule 1
Fault-finding course Submodule 1
Practical exam Submodule 1 (candidates failing to pass the practical exam will not be admitted to Submodule 2)
Project work (counts twice)
Daily assessment grades (Submodules 1 + 2)
Final theory exam after Submodule 2

Duration
2 courses, 3 days each, incl. exam, plus submission of project work **or** at least 5 days with project work also submitted.

5. Information and Registration:

5.1 National Associations

Deutschland
Verband Deutscher Berg- und Skiführer e.V.
Ausbildung Seilzugangstechnik
Geschäftsstelle
Gewerbepark 13
DE-83670 Bad Heilbrunn
+49 8046 1886110
info@vdbs.de
www.vdbs.de

Österreich
Verband Österreichischer Berg- und Schiführer
Ausbildung Seilzugangstechnik
Olympiastrasse 39
A-6020 Innsbruck
office@bergfuehrer.at
www.IVBVseilzugang.at

Schweiz
Schweizer Bergführerverband SBV
Sekretariat Abt. Arbeitssicherheit
Eyeltiweg 3
CH-3860 Meiringen
+41 33 952 15 15
as@4000plus.ch
www.4000arbeitssicherheit.ch

Georgia
Georgia Mountain Guide Association GMGA
14 Makashvili str.
0179 Tbilisi
info@mountainguide.ge
www.mountainguide.ge

Argentina www.aagm.com.ar

Bolivia www.agmtb.org

Ecuador www.aseguim.org

Peru www.perumountainguides.com

5.2 General Terms & Conditions

See respective course providers (National Associations)

6. Training course content

6.1 Personal Fall Protection Equipment (PFPE) Level 0

National legal requirements
Fall prevention standards

Description - Working with PFPE

Collective protection
Impact force / slack rope
Fall zone / pendulum fall risk

Equipment
Equipment checks
Equipment care
Safety checks
Anchoring techniques

Suspension trauma / Rescue (hanging intoxication)
Rescue systems
Restrictions: Working with PFPE and working on a hanging rope

6.2 Training content Level 1

National legal requirements
EU fall prevention standards

Description - Working with Personal fall protective equipment
Description - Rope access and positioning procedures

Equipment
Equipment checks
Equipment care

Knots

Anchoring techniques
• On terrain
• On a building

Rope manoeuvres
Moving on the rope
Safety checks

Descending on the rope (basic manoeuvre)
Ascending on the rope (basic manoeuvre)
Descending device and mobile fall-arrest device

Descending over obstacles

Descending over knots or obstacle /edges/ledges

Rope changes

Ascending on the rope
Ascending on inclined terrain
Ascending on a hanging rope

Ascending over obstacles, rope change, rescue (basic manoeuvre)
Ascending over knots or ledges
Rope changing on the ascent

Rope physics
Rope dynamics and fall factors / fall arrest force

Moving on artificial constructions
Lattice masts and other structures
Cable nets
Cable structures
Buildings
Wind energy
Workspaces with narrow access, shafts, silos, containers
Working on mobile constructions, work platforms
Working on loose bulk material or over water

Rescue procedures
Evaluate situation / first measures
Suspension trauma
Alerting others / emergency services
Rescue organisation

Simple rescue techniques
General
Hoist and rescue devices
Releasing an injured person / evacuee and descending together
Rescue with rescue rope
Descending with a patient and with rope change

Working with motor tools

Appendix
Equipment lists for PPE
Works log
Insurance information
IFMGA Logbook

6.3 Training content Level 2

National legal requirements
EU standards against a fall

Description of working with PPE
Description Rope access and work positioning procedures

Equipment
Equipment checks
Equipment care
Strength of PPE

Fall arrest system, or 'back-up' system

Knots

Anchoring techniques
• On terrain
• On a building
• Cables

Anchoring ropes

Rope manoeuvres - moving on the rope
Safety checks
Descending on the rope (basic manoeuvre)
Descending device and mobile fall-arrest device
Descending over obstacles
Descending over knots or edges
Rope change during descent

Ascending on the rope
-on inclined terrain
-on a hanging rope
Ascending with a Croll and a rope clamp
Ascending with I'D device or other suitable descending device and rope clamp

Ascending over obstacles
Ascending over knots and edges

Rope change on the ascent
-with a rescue from below

Traversing (horizontal mobility)
Horizontal mobility on structures, on a fixed rope (horizontal or diagonal)

Active descending and additional securing from above
Fixed-cable access way for construction site access (i.e. via ferrata)

Rope physics
Rope dynamic fall arrest force
Tensioning and loading
Semi-static ropes

Moving on artificial constructions
Lattice masts and other structures
Cable nets
Cable structures
Buildings
Wind energy
Workspaces with narrow access, shafts, silos, containers
Working on mobile constructions, work platforms
Working on loose bulk material or over water

Natural hazards
Rock fall
Flood
Thunderstorm
Permafrost
Foehn wind

Rescue basics
Situation assessment / first measures

Bringing unconscious persons to safety
Stop bleeding
Suspension trauma
Raising the alarm
Rescue organisation

Complex rescue techniques vertical and horizontal

General
Pulley systems

Releasing and descending together with an evacuee
Rescue with rescue rope
Releasing and joint descending in inclined terrain
Releasing and joint descending over an anchor point/stand
When both the evacuee's work rope and safety rope are bearing the load
Releasing a person and lowering him/her from above (with rescue rope)
Releasing and lowering from above (person cannot attach himself)
Rescuer and evacuee moving from rope-to-rope, traversing
Rescuing persons from/off a structure

Rescue with a guide rope
Pulling Rescuer and patient away from obstacles

Upward Rescue
Using a counterweight pulley
With a winch or motor equipment

Working with motor tools

Appendix
Equipment lists for PPE
Equipment list for the rescue kit bag (suggestion)
Works log
Building site preparation / risk assessment / risk reduction

Checklist for incoming contracts
Insurance Information
Anchor systems (bolts)
Closing-off construction sites
Wind speeds
IFMGA Logbook

6.4 Training content Level 3

Submodule 1
All elements of level 1 and 2 training must be mastered and will be tested
Complete and assess the fault detection course
Theoretical basis for the creation of a safety concept
Regulating health & safety of workers in construction work

Planning construction work e.g.
- Organisation of work health & safety protection
- Compulsory wearing of protective helmet
- High-Viz clothing
- Rescue of injured persons
- General requirements
- Protection against falling objects
- Throwing or dropping objects from structures and equipment
- Ladders
- Scaffolding
- Other fall arresters
- Danger of drowning
- Exceptional hazards
- Measures for roof edges
- Fragile roof surfaces
- Access to workplaces
- Working on at hanging rope
- working in pipelines

Legal basics
Safety concept for external construction sites
Hazard assessment
Planning measures
Create and explain safety concept
Checklist for mountain construction sites
Checklist for accident/emergency planning

Introduction to systematic equipment testing (by qualified inspectors)
Preparing the project work

Project work level 3 / project presentation
Define the construction site
Visualize the construction site

Safety concept
- Safety model
- General construction site info
- Installation plan / safety provisions

- Risk analysis
  - Identifying hazards
  - Risk assessment
  - Risk evaluation
  - Determine boundaries

- Planning measures
  - Employees
  - Environment, transport, third parties
  - Environmental hazards
  - External influences

- Residual risks

Emergency and rescue concept
- Overall concept
  - Serious accident involving personal injury
  - Severe accident endangering the environment

Format
Digital or on paper

Deadline
2 weeks before course Submodule 2

Project presentation
In Submodule 2, each candidate must present his/her project in a presentation lasting max. 15mins.

Submodule 2
Introduce and discuss project work

Rescue systems currently on the market
Packing rescue kit bag

Working in confined spaces
- Silos
- Tanks
- Shafts

Equipment inspection expert training
Working in groups

Risk analysis, planning measures, create rescue concept for a prepared object.
Prepare and present a presentation and rescue

Dealing with the media
Communication in case of accidents
Ergonomics on the rope

Human factors
New employees at work, instruction of own employees
Cooperation with third parties

7. Training course experts

All training experts belong to an IFMGA 'Rope access and positioning techniques' expert team and are certified as level 3 trainers. Appropriate trained and certified experts from recognized associations e.g., SHRV, SBV, VÖBS, VDBS, and FISAT may also be consulted
The training experts are constantly in training and attend a further training course offered by an IFMGA Rope access and positioning techniques association at least once a year.

7.1 Daily assessment grades

The training experts assess and grade participants' performance each day according to the following criteria:
- Personal behaviour and handling
- Rope technique
- Recognising and assessing hazards
- Equipment application
- Equipment handling

After the 4 training days, the grades are calculated and passed on to the Chief Examiner.

The daily assessment grading is an integral part of the final examination.

8. Facility requirements of a training centre

Theory lessons
A closed room with adequate space, furbished with tables and chairs must be available for the theory lessons. Each participant must have enough space to work independently.

Practical lessons
The practical lessons must be carried out in a clearly defined, open space. The anchor points available must hold a force of at least 10kN and should be regularly checked.

Special exercises can also be carried out on secure terrain or on secured objects.

A safety and rescue concept must be available and all participants aware of its contents.

The noise emission level must allow for concentrated work.
The room temperature should provide a comfortable climate.

9. Examination regulations

9.1 Admission requirements

Level 1
Candidates for the Level 1 examination must:
- be at least 18 years of age
- have completed the Level 1 training course

Level 2
Candidates for the Level 2 examination must:
- be at least 18 years of age
- have completed and passed the Level 1 exam at least 6 months previously
- hold a valid Level 1 certificate
- have completed the Level 2 training course

Level 3
Candidates for the Level 3 exam must:
- be at least 21 years of age
- have completed and passed the Level 2 exam at least 12 months previously
- hold a valid Level 2 certificate
- have completed the Level 3 training course

9.2. Examination experts:

The examining experts are members of the official 'IFMGA Rope access and positioning' exam team and are active as Level 3 trained and certified experts. Appropriately trained and certified experts from recognized associations such as SHRV, VÖBS, VDBS and FISAT may also be consulted.
The Chief examining expert in charge should not have been active as a training expert for the course duration
The training experts may be requested by the Chief Examiner to assist in certain parts of the examinations.
The exam organisation and format are the task of the Chief examining expert.

9.3 Examination conditions:

The exam must be meticulously organized and held under fair conditions. All candidates must be treated and evaluated the same.

9.4 Examination procedure:

The examination procedure is determined by the Chief examining expert and clearly communicated to the candidates. The usual order is the theory examination first, followed by the practical tasks.

9.5 Examination location

The examinations are carried out at the training centres of the national training associations. In exceptional cases, examinations may be carried out elsewhere, however these locations must comply with the usual general requirements of a training centre:

The examination must be carried out in an open and clearly marked property.
A safety and rescue concept must be available and all participants aware of its contents.
The noise emission level must allow for concentrated work.
The room temperature should provide a pleasant climate.

9.5.1 Theory examination

A closed room with adequate space, furbished with tables and chairs must be available for the theory lessons. Each participant must have enough space to work independently.
The examination supervisor must always be able to survey the room.

9.5.2 Practical examination

Various examination stations which meet the safety requirements must be available for use.
The examiner must be able to monitor all candidates at all times.

9.6 Examination grading

Theory exam
The Theory exam consists of 20 - 50 questions on the topics of fall protection and rope access and positioning.

Practical exam
The tasks set by the Chief Examining expert must be completed by each individual candidate and will be assessed by the examination experts.

Experience and daily grading
The training experts assess and grade the performance of the course participants daily. In particular, the following is judged:
Personal behaviour and task handling, rope technique, recognising and assessing hazards, knowledge in equipment application and handling

9.7 Theory examination

The answers to the theory exam are evaluated according to a points system.
The maximum points score or grade available must be visible on the exam form.
The examiner assigns points based on the answers.
The examiner is allowed a margin of discretion in the awarding of points and may also award half points.

A candidate will fail the theory exam if they do not achieve at least 60% of the maximum points score.
Failed candidates may re-sit the theory exam after a 7-day period has elapsed.

9.8 Practical examination

Level 1-3
The examination is set out by the Chief Examiner. It consists of at least four practical test items. At one test area, equipment knowledge and knowledge of knots are tested. The other three will test the candidate's knowledge of various rope manoeuvres, and PFPE techniques by different means including a rope obstacle course. The Chief Examiner may also link some exam tasks together and/or distribute exam tasks.

Grading criteria:

Marginal errors
Errors that do not place the candidate directly in a hazardous situation
i.e., a careless mistake

Critical errors (Graded EU +1 / CH -1)
Errors that place the candidate in a critical situation, but without directly endangering him/herself

Safety relevant errors (Graded insufficient)
Errors that endanger the candidate and/or others.

9.8.1 Grading criteria: Slight errors

- Helmet chin strap not closed at beginning of manoeuvre, candidate is aware of error
- Candidate presents as not sufficiently equipped for the manoeuvre
- ID handle not in braking position
- Rope is twisted (disordered rope)

9.8.2 What is a critical error? (Graded EU +1 / CH -1)

- Mobile fall arrest device too low to the ground ⇨ High risk of injury
- Rope clamp low ⇨ For falls of factor 0.3 or higher, danger of cracking
- Rescuer hangs the injured person on the central harness attachment point (instead of chest)
- No safety check before starting on the rope
- No safety check of anchor points
- Devices incorrectly connected
- Where the candidate becomes blocked, and cannot free himself without the help of others
- Wrong or faulty knots
- Over-complicated manoeuvres
- Descending device (e.g., ID) casing not completely closed
- In a rescue situation, failure to load the injured person onto the carabiner of the descending device
- Opening the carabiner whilst under load
- Failure to use backup over large traverses
- Failure to use a recognised system
- Very time-consuming manoeuvre
- Very awkward manoeuvre

What is a safety-relevant error?

- Only hanging on one rope
- Failing to be secured in the fall zone
- Ropes incorrectly fixed
- Incompetence in tying essential knots (attaching ropes)
- Too much slack rope in a critical area
- Incorrect or falsely tied knots
- Failure to select the necessary manoeuvres, task not tackled or not executed
- The examiner must intervene for safety reasons
- The candidate or others are in danger

Candidates who score error points due to lack of knowledge of knots and devices (for example, when securing the ropes at the anchor point) will fail the exam. A person incapable of mastering the knot techniques cannot be considered certifiable for working at height!

Grading table EU and CH

EU			CH	
Ok	1	Very good	6	Ok
Ok	2	Good	5	Ok
Ok	3	Satisfactory	4	Ok
2 x 4 failed	4	Unsatisfactory	3	2 x 3 failed
1 x 5 failed	5	Insufficient	2	1 x 2 failed

9.9 Examination grading Levels 1 and 2

The candidate is deemed to have passed the examination if he avoids receiving an 'Insufficient' grade or more than one 'Unsatisfactory' grade.

9.10 Examination grading Level 3

Practical exams
Analog Level 2
The exam tasks are usually more challenging than in Level 2
The candidate must have passed the practical exam in TM 1; otherwise they will not be admitted to the TM 2

Fault-finding course assessment
Counts as a sub-grade

Theoretical exams
60% of answers in each exam must be correct

Training lesson
Each participant must hold a training lesson, which is graded, e.g. explain / demonstrate an ascent to an employee over an obstacle

Project work
The grade received for project work is doubled in the final grade

Project presentation
Will be graded by an expert

Final grade
The candidate is deemed to have passed the examination provided the overall grade is not 'Unsatisfactory' or 'Insufficient'

9.11 Examination content

Level 1

Knowledge of current terms of working at height
Basic knowledge of the legal requirements
Knowledge of EU fall protection standards

Equipment
Equipment checks
Equipment care

Knots / Devices

Anchoring techniques
• On terrain
• On a building

Rope manoeuvres - Moving on the rope

Safety check

Descending on the rope
- with descending device (I'D) and Mobile fall-arrest devices
- Descending over obstacles
- Descending over knots or edges
- Rope exchange during descent

Ascending on the rope
- With descending device (I'D) and a rope clamp
- Ascending with 2 rope clamps
- Rope change during ascent
- Ascending over knots
- Ascending over intermediate anchor point (rabbit ear knot)

Rope physics
Rope dynamics and fall factors / fall arrest force

Rescue procedures
Evaluate situation / first measures
Positioning unconscious persons
Suspension trauma
Alerting others/services
Rescue organisation

Rescue manoeuvres
Rescue with rescue rope
Releasing and descending together with an evacuee

Level 2

Knowledge of current terms of working at height
Basic knowledge of the legal requirements
Legal requirements
EU fall protection standards

Description - working with Personal fall protective equipment
Description - Rope access and work positioning procedures

Equipment
Equipment checks
Equipment care
Strength of PFPE

Fall arrest system, back-up system

Knots

Anchoring techniques
• On terrain
• On a building
• Cables

Rope manoeuvres - Moving on the rope
Safety check
Descending on the rope (basic manoeuvre)
Descending device and mobile fall-arrest device

Descending over obstacles
Descending over knots and edges
Rope change

Ascending on the rope
Ascending in sloped terrain
Ascending on a hanging rope
Ascending with descending device (and rope clamp)
Ascending with a rope clamp and integrated chest clamp (e.g. Croll)

Ascending over obstacles, rope change, rescue (basic manoeuvre)
Ascending over knots and edges
Rope change on ascent, in rescue from below
Rope change on ascent

Traversing (horizontal mobility on a structure)

Traversing on pretensioned ropes (horizontal or diagonal)
Fixed hand-cable for construction site access (via ferrata)

Rope physics
Rope dynamic and factors / fall arrest force

Moving on artificial constructions
Lattice masts and other structures
Cable nets
Cable structures
Buildings
Wind energy
Workspaces with narrow access, shafts, silos, containers
Working on mobile constructions, work platforms
Working on loose bulk material (e.g., slurry) or over water

Rescue procedures
Evaluate situation / first measures
Positioning unconscious persons
Suspension trauma
Alerting others/services
Rescue organisation
Rescue kit bag

Rescue from difficult terrain
General
Pulley systems

Rescue manoeuvre
Releasing and descending together (basic manoeuvre)

Rescue with rescue rope

Unblocking from a long rope clamp (cow tail)

Unbocking from a mobile fall-arrest device

Unblocking from an integrated chest-clamp device (e.g. Croll)

Unblocking all problems with a counterweight pulley system

Rescuing from structures (e.g. from masts)

Rope change whilst descending with a patient

Descending with a patient over knots

What to do when a Patient's work and safety rope are loaded

Rescue with loaded lead rope

Pulling a Rescuer and patient away from obstacles

Upward rescue
-with counterweight system
-with winch or motor equipment

Working with power tools on the rope

Level 3

Submodule 1
Practical exam
Manoeuvres Level 1 and 2
Knots and equipment

Practical instruction rope manoeuvres
Grading on fault detection test

Theory exam Submodule 1
A candidate who does not pass the examination or parts of the examination will not be admitted to submodule 2.
Individual parts of the exam parts can be repeated. If the candidate does not pass the exam, submodule 1 must be repeated.

Submodule 2
Project work on safety concept
Construction site project presentation

Theory exam Submodule 2

10. Appeals/Resitting exams:

Candidates wishing to re-sit must submit a written appeal citing their reasons, within 30 days. Appeal fee (2017) is 300.00 CHF / 250.00 EURO and must be paid on receipt of the invoice. After the fee has been received, the appeal documents are forwarded to the Appeals Committee of the respective training course organisers.

11. Validity of course certification:

The certification is valid for 2 years. A further revision course must be taken to extend the validity for a further 2 years. If an applicant fails to extend the certificate within 4 years, the course and exam must be retaken.

Later, the course and the examination (according to the last level) must be repeated.

The training centre can recognize training and further education courses from third party training centres.

IVBV SC RA / Meiringen Schweiz / MB/GB/UW 31.10.2017
Überarbeitet IFMGA SC AS Buchs Schweiz MB/GB/UW 07.06.2018
Überarbeitet IFMGA SC AS Buchs Schweiz 17.09.2019