

RESCUE DIVER

(Speciality Rescue Diving)

Intention of this course

The Intention of this course is to offer sufficient knowledge to the diver to fulfill all requirements for a rescue diver.

Instruction by ProTec scuba instructor with speciality Rescue.

Training environment

Any open water, safe for scuba diving.

Prerequisites

- Good diving skills (theory and sufficient practice) that should be proved to the instructor.
- Scuba Diver 1* certification.
- Minimum age 16 years.
- First aid course, DAN - or appropriate courses (DAN Diving First Responder DFR or as a minimum DAN First Aid for Hazardous Marine Life Injuries and DAN Oxygen First Aid for Scuba Diving Injuries)
- Speciality Search & Recovery.

Accomplishment

The rescue diver course mainly aims at all situations and treatments for diver while diving, under water as on surface. To avoid any dangers, situations and accidents is the most important goal, but also to recognize it ahead and to be prepared to help, to know exactly what to do.

Good "First Aid" skills are prerequisites of this course. This means any non-diving first aid situations and actions like immediate life saving actions, artificial respiration, Oxygen First Aid, cardiopulmonary resuscitation, injuries treatment. All this topics will be handled just as an overview or overlap in the rescue diver course.

Furthermore, all treatments to be done on land or on board, after successful rescue, are also part of the DAN combination course "DAN Diving First Responder DFR" which is very recommended as a pre-stage to this rescue diver course.

ProTec recommends DAN for Diver First Aid Skills and offers also all DAN instructor courses. But DAN courses are no substitution for a ProTec Rescue Diver course.

Other kind of equipment or diving skills are not part of the rescue diver speciality - they belong to the other scuba diving courses.

So, the Rescue Diver course contents prevention of (medical) diving accidents, (pre-) recognition, first aid to the diver, starting from the under water environment to the surface and transport to land or on board, as well as first aid treatment of all dive specific causes like deco illness, hypothermia, near- drowning and so on.

Search and recovery (of a diver) is not part of this course. As a separate speciality course, this is a prerequisite.

Theoretical lessons

Reasons of dive accidents (Explain, appraise chance of the points below)

- Overestimation of one's own capabilities, overstraining
- Misinterpretation of situations
- Stress, peer pressure
- Bad physical state (no fitness, healthiness, drugs, alcohol,..)
- Wrong, less or no education / training
- Panic (may arise from the other points here)
- Technical breakdown of equipment
- Mistake(s) by the buddy
- Marine life

Well timed cognition of case of need / distress and prevention

Mistakes UW - cognition and judgement

- For lack of skills / knowledge
- For lack of equipment
- For lack of fitness or medical problems

Stress & Panic

- First signs
- Analyse the reason(s)
- Effect and after-effect

Rapture of the deep

- Control & communication
- At 35-40 msw danger raises rapidly
- Recognition on yourself and on your buddy is important.
- Counteractive measures (5 - 10 msw already helps)

Equipment

- Wrong size or unsuitable
- Too much causes stress
- Malfunction, bad service
- Dependability - own contra rented equipment
- How good does a Buddy know the other diver's equipment?

Help & assistance under water and on the surface

Stress

- Establish contact and calm down
- Solve problem
- Rest, take a break

Panic

- Active & passive Panic
- Establish contact – approach carefully
- The possibilities for intervention a limited UW

Diver unconscious: Controlled ascent

- Upright position
- Take care of exhalation
- Regulator in mouth or not - go surface!

Effective actions on the surface - rescue a diver to land / on board

- Secure position and buoyancy (fill up BCD, drop weight belt)
- Transport on the surface, tow from behind with underarm grip or on tank – take care for turn- around and brace reaction of the diver - use safety margin
- Difficult decision: Transport or supply first?
 - If the land / ship could be reached within 1 minute, transport will be first choice, because possibility for supply will be much better on land.
 - Else: Supply until help arrives.
 - Supply and transport at same time is far not easy or effective, specially for only one helper. > make a decision!
 - Artificial respiration on the surface - exercise methods.
 - Transport and method of carrying an unconscious out of the water (at rough sea) to beach / on board (approach, preparing, carrying methods (shoulder, back, hips, up on a ladder)

Effective actions on land or on board

- Supply with pure Oxygen or at least Nitrox
- To bed (lying or sitting), check temperature (should feel comfortable), give water/liquids
- Reactivation (this is part of first aid - see prerequisites)
- ABC- rule: (this is part of first aid - see prerequisites)
- Clear airway (this is part of first aid - see prerequisites)
- Artificial respiration (this is part of first aid - see prerequisites)
- Circuit –cardiopulmonary resuscitation
 - Manuel methods &CPR
 - Automated External Defibrillator (DAN Course)

Emergency management

- To be prepared is important!
- Rescue equipment
 - First aid equipment
 - Oxygen
 - Tools for communication
 - Tools for search and rescue
- Information &communication
 - Emergency phone numbers
 - Where are professional (help) services available?
- Define and delegate the tasks, leadership and control
- Transport – who, how, where

Practical Training

Exercises on land - first aid

- Oxygen (explain and show different possibilities – there are many systems but less basic methods)
 1. Open system
 2. Circuit
- Reactivation on hand of a dummy (doll) would be best
 1. Artificial respiration
 2. Cardiopulmonary resuscitation
 3. Attend to injury

Exercises on the surface

- Secure position and buoyancy
- Transport of a beated diver to land/ship
- Transport of a unconscious diver to land/ship
- Artificial respiration methods
 1. Without any tools
 2. With snorkel
 3. With breathing mask
- Gear off / drop off parts of equipment
- Diver on surface in panic or stress
 1. Approaching method
 2. Establish contact
 3. Solve Problem

Exercises under water

- Diver still conscious
 1. Help for buoyancy (to much / to less)
 2. Help against stress
 3. Help against panic
- Diver unconscious
 1. Search und Find is part of the ProTec speciality course "Search & Recovery"
 2. Start-up: Get the diver in upright position, ready for ascent
 3. Ascending: Get the diver to the surface
 1. Take care of position and hold
 2. Take care of exhalation



INSTRUCTOR MANUAL DIVING PROGRAM

3. Take care of buoyancy and ascending speed

Actions in case of problems for the rescuer

Courseware

Visit ProTec members area for any material / price list.

- Checklist