

PROTEC 1* DIVER

PROTEC SCUBA DIVER 1

(Autonomous Diver, Bronze Degree, CMAS*, Open Water Diver)

Intention of this course

The Intention of this course is to offer a good diving skills for the beginner as an scuba diver (**SCUBA = Self Containing Underwater Breathing Apparatus**). At the end of this course, the diver should be able to dive safely to 20 msw (after sufficient training to max. 30 msw), to master the typical situations during a standard recreational dive, to control the usage and the maintenance of the important equipment's articles (buoyancy control device, regulator, instruments, etc.), and to know the substantial self-rescue procedures.

Instruction by ProTec 1* Instructor.

Training environment

Any open water, safe for scuba diving.

Prerequisites

- A very good physical condition proved by a medical statement as well as
- A finished snorkel diver (ABC) course or an appropriate knowledge which should be proved certainly before the beginning of the practical exercises as not all the ABC practices are contents of this course.
- Min. age 15 years.

Accomplishment

- During the theory training starting with pool training with "equipment drill", then basis exercises at uw diver's platform (if available) in 5,8 and 12m.
- To estimate the emergency ascend (exercise) always according to deco/N2 at the begin of the diving exercises.
- Diving training with navigation and buddy breathing exercises to max. 20 min.
- Use the primary regulator's alternately for buddy breathing exercises.

- To lay the dives afterwards in steps of 5 m depth for each dive to max. (!) 20 m (cold water, lake) 25 msw (warm water / tropical sea) and to check constantly the anesthesia effect (N2) and the diving behavior.
- Report any sign of N2-narcosis to the students and to escort the concerned diver by assistant to less depth.
- Repeat all the dives that are not correctly ended until the result fit all the requirements or to take the student out of the course.
- Not to tolerate the excessively air consumption (in relation to the body size and situation) – make UW behavior better.
- No obligatory “course –enforce”
 - There is a checklist for every ProTec course, where all important skills and exercises are listed. The ProTec Instructor has to use this list absolute. When finished, the duly signed original has to be handed to the student, while a copy have to remain over 5 years at the instructors records for quality assurance.

Theoretical lessons

- Check the ABC knowledge. Some diving history.
- Diving physic: Pressure laws, partial pressure, temperatures, ...
- Diving medicine: Overpressure in body, decompression, under cooling, dehydration, stress, panic, injuries, etc. - Effects and right behavior, counter measures.
- Diving techniques: Scuba-equipments, swimming and submerging techniques, buoyancy control, ascending, behavior on the surface.
- Security: Danger through over estimation of on's abilities, buoyancy mistake, air consumption & calculation, problem solving UW, poor visibility, to be hanged (linen, nets, fishing lines), grottos and overhangs, see animals, ships.
- Diving's tables: Standard profile, repetitive dives, diving computer.
- Specialities: Boat dives, simple navigation, (Where is the boat/coast?), current diving, surge (here emergency ascent)

Practical training

Surface:

- Gear off, assembling, dismantling, supplying, getting in and out.

Pool:

- Check ABC abilities (45 sec diving time, 25 m advanced swimming, fins swimming techniques)
- Correct buoyancy - weight belt & diving suit.

- Behavior on the surface, for example: The use of snorkel & BCD (not the fins), gear on and off, dive sign language.
- Regulator exercises, 3 ways – blowing out (1. breath out simply, 2. just shower button, 3. without air and shower button = supersede H₂O with tongue).
- Ascending correctly (buoyancy control, breathing behavior, danger on the surface)
- UW swimming and buoyancy
- Clearing mask, to breath stationary without mask then diving
- UW gear off, make a small and free diving round, then gear on
- Buddy breathing, UW help
- Rescue measures
- Take minimum 2 pool days.

Lake/See:

- 1.) 5 msw: Buoyancy, emergency ascend, buddy breathing, UW gear off, free diving ascending and descending and then gear on, clear the mask.
- 2.) 8 msw: Buoyancy, emergency ascent, breathing control, ascending while buddy breathing.
- 3.) 12 msw: Buoyancy, breathing control, ascending while buddy breathing.
- 4.) Ascend under control to about 18 m with stops at 6 and 3 m and likewise to descend under control to 15 m.
- 5.) Diving practice, (about 12-15 msw level), to control the air consumption and to watch out the optimal swimming movement and buoyancy, check N₂.
- 6.) Repeat point 4 either in of cold water/lake - this means by poor visibility - or in clear water (sea) as dawn dive.
- 7.) Repeat point 5 according to the environment in cold water to max. 18 m, and with good visibility in warm waters to max. 21 m. deep.

About 5 TG altogether in open waters.

Exercise distance snorkeling with equipment over about 100 meter (ev. to and from diving place).

Remark:

Gear on and off UW exercises are less to be needed later in the practice, however they represent an good UW exercise in which tasks of stress managing can be trained.



INSTRUCTOR MANUAL DIVING PROGRAM

Courseware

Visit ProTec members area for any material / price list.

- Checklist Pool
- Checklist Open Water