

Crossover “Certified AAUS/CAUS¹” scientific diver to “Certified German Research Diver (Geprüfter Forschungstaucher) / European Scientific Diver”

Rationale

The crossover course is designed as a one week competence test to prove that the applicant is fully competent with the national (German) and European standards in scientific diving and fulfils both, the theoretical and the practical skills required to safely conduct scientific dive missions in accordance with the safety standard of the German Occupational Safety and Health Act and the German rules for scientific diving DGUV 101-023 (“Operation of Scientific Divers / Einsatz von Forschungstauchern”). The course is organized jointly by two certified German Education Centres for Scientific Diving in close coordination with the German Commission for Scientific Diving (KFT) and the German Examination Committee for Scientific Diving (BG-BAU Prävention) within the German Social Accident Insurance Association (DGUV). Applicants must hold a valid American or Canadian scientific diver certificate (AAUS/CAUS).

The crossover competence course includes:

- Theoretical teaching in German and European Law and Regulations in scientific diving.
- Theoretical teaching in the compilation of a “risk assessment” according to DGUV 010-023 for a scientific dive mission.
- A practical test of scientific diving competences incl. the demonstration of conducting a complex scientific task under water within the safety standards of DGUV 010-023.
- Written competence test with 50 questions (diving medicine, diving physics, diving technique, diving operations, German and European law and regulations in scientific diving; each 10 questions).
- Final oral discussion.

Documented competences expected of the applicants when joining the crossover course:

- Thorough theoretical knowledge in diving medicine, diving physics, diving technology and scientific diving operation.
- Thorough diving experience with at least 50h of scientific work under water (Written proof required e.g. dive log).
- A minimum of 10 dives deeper than 15m with a scientific task (Written proof required e.g. dive log).
- A minimum of 5 dives deeper than 25m with a scientific task (Written proof required e.g. dive log).
- Valid German rescue swimmer certificate Silver (Deutsches Rettungsschwimmabzeichen Silber)“ or international equivalent (Written proof required).
- First-Aid certificate (Written proof required not older than 1 year)

¹ American / Canadian Association Underwater Science (AAUS/CAUS)

Course realisation

The course must be jointly applied for by two certified education centres submitting the course plan, the written theoretical test and the names of the certified instructors which are responsible for the course to the German examination commission for scientific divers (PK) and to the KFT. The two bodies jointly approve the course. After the course, the two certified education centres send a written report to the PK recommending or refusing the certification of each course applicant. The final decision if an applicant has the required competence level to be certified as “Certified research diver / European Scientific Diver” is made by the German Statutory Accident Insurance based on the results of the competence test.

Course contents

Apnoea competence test in pool and / or lake/sea:

1. 1000 m snorkelling in 18 min with apnoea equipment.
2. 40 m apnoea distance diving
3. 60 sec. apnoea diving while doing 3 knots (bowline knot, eight knot and clove hitch)
4. Gear rigging exercise under water.
 - Removing SCUBA gear under water,
 - diving a distance of 10 m and surfacing.
 - 1 min surface pause,
 - approaching the SCUBA gear from a distance of 10 m under water,
 - rigging the gear completely.
5. Emergency exercise.
 - One diver provides air with its second regulator to a diver with a major failure of his SCUBA.
 - Diving a circle of about 15 m in a depth of 5-10 m deploying buddy breathing.

Depending on local conditions, the exercises may be modified. The competence test must include at least 4 of the above exercises.

Diving competence test outdoors (not swimming pool) with scientific task:

6. Recovering a metal tube from 5m water depth. The diver has to attach a rope to a metal tube with a clove hitch. The group must be able to safely recover the tube.
7. Conducting a complex scientific task under water as a group.
8. Demonstrating a successful rescue scenario during a simulated severe dive accident.