



Course **Scientific Diving**

TU Bergakademie Freiberg 2025

The Scientific Diving course consists of modules I and II. The content of the course meets the requirements of ISO 8804-1:2024 (Requirements for the training of scientific divers - Scientific divers) and ISO 8804-2:2024 (Requirements for the training of scientific divers - Advanced scientific divers).



Module I: Lecture and dive training

When:

June/July 2025 (theory and practical training including 2 dive camps)

Where:

Scientific Diving Center (SDC)
Technical University - Bergakademie Freiberg
Gustav-Zeuner-Str. 7
09599 Freiberg
Germany

What:

The course is divided into lectures in the morning and practical pool training in the afternoon. The topics of the lectures correspond to the contents of ISO 8804-1:2024 and ISO 8804-2:2024 and include, among others: Dive planning, safety precautions, equipment, oceanology, geoscience, sampling methods (water, gas, sediment, rock and biota), measuring equipment (e.g., temperature, pH, ORP, EC) or photo documentation. A two-day diving camp with practical training in freshwater lakes takes place at the beginning and end of the course. In the diving camps, the methods taught in the swimming pool are deepened in practice under real and difficult conditions. In addition, there is training in the use of emergency oxygen and first aid. Furthermore, the distribution of tasks and leadership of diving groups, as well as the preparation and follow-up of dives and detailed documentation, are intensively analyzed. During the camps, the safety mechanisms and allocation of tasks and procedures necessary for scientific diving are continuously established.

The following key areas are also taught:

- Laying transects / surveying
- Measuring in situ
- Sampling
- First aid instruction
- Photo documentation / photogrammetry
- Oxygen administration instruction
- Permanent attention to diving safety
- Improvement of diving skills

The dives take place in 2 different freshwater lakes or flooded quarries.

Module I is completed when all requirements have been met, e.g: Successful participation in both camps, preparation of all necessary protocols and supporting documents, successful completion of the written exam and the minimum number of 10 scientific dives.



Course fee:

Modul I: Including training, printouts, entrance fee to the public pool and dive spots, fee for guest student enrolling, accommodation during the 2 dive camps (4 nights in multi bedded rooms), air for diving, dive weights in pool and lakes.

Not included: accommodation in Freiberg (except during the dive camps), food and drinks, travel costs to Freiberg and the 2 dive camps, diving equipment

Module II: Excursion

When:

September 2025 (practical training)

Where:

Sveta Marina, Croatia

What:

The excursion consists of a two-week research project in the Croatian marine environment. During the excursion, the participants work on a scientific topic. Various working groups offer topics such as geology, hydrogeology, water chemistry, marine biology, heat and mass transport or photo and video documentation. Participants are invited to contribute their own ideas and topics.

The aim of the excursion is to deepen and extend the practical application of the content of Module I. During the individual dives, various scientific methods are trained and put into practice under water.

During the excursion, 12-16 dives are carried out, including at least 2 boat dives. The diving days are usually organized as follows:

- Briefing about the planned daily programme
- Individual breakfast
- Briefing on the 1st dive including definition of the scientific objectives and planned methods as well as the required equipment
- Carrying out the dive and the investigations accompanied by a supervisor or independently in a team
- Debriefing of the dive and initial evaluation of the results
- Preparation of the dive log according to the specifications
- Rest period
- Briefing for the 2nd dive including definition of the scientific objectives and the planned methods as well as the required equipment
- Carrying out the dive and the investigations accompanied by a supervisor or independently in a team
- Debriefing of the dive and initial evaluation of the results
- Preparation of the 2nd dive protocol according to the specifications
- Continuous incorporation of the results into the final report
- Rest period



Depending on weather conditions and personal fitness, 2 - 3 non-diving days are planned during the excursion. During this time, the results and preliminary work will be discussed and analyzed with the participants in the form of a presentation.

Module II is completed when all requirements have been met, e.g: Successful participation in at least 12 scientific dives, preparation of all necessary protocols and supporting documents, presentation of the results in a scientific lecture and preparation of the final scientific report.

Course fee:

Modul II: Including training, accommodation in Croatia (12 nights, 2 bed rooms), entrance fee diving, air for 12-16 dives, dive weights and computer, fee for 2-4 boat dives.

Not included: food and drinks, travel costs to Croatia, diving equipment

The 'Scientific Diving' course is completed after successful completion of the course consisting of modules I and II. Participants receive the 'Advanced Scientific Diver' certificate in accordance with ISO 8804-2:2024.



Additional information's

- Requirements for participation
- The minimum age for participation is 18 years.
- Diving license according to ISO 24801-2 and 24801-3 9.3.,9.4,9.5 (If deficits are found, a follow-up training is necessary). Copy of certificates and logbook.
- Document with proof of diving suitability (medical certificate)
- Information about diving history and scientific background
- Experience with decompression dives
- Scientific degree like Bachelor, Master, PhD **or** enrolled as student
- Enrolment as a student at the TU Bergakademie Freiberg, organized by SDC
- Complete payment of course fees



- Refund of the course fee

- More than 6 months before the start of the course: 100% in case of written cancellation
- More than 3 months before the start of the course: 50% in the event of written cancellation
- More than 1 month before the start of the course: 25% in the event of written cancellation
- Less than 1 month before the start of the course: no refund

If the course is cancelled by the Scientific Diving Center, 100% of the course fees already paid will be refunded.

- Accommodation

Accommodation for the dive camps is included in the course fee. During the block course participants are responsible for their own accommodation. Information on accommodation in Freiberg is provided here, among other places:

- <http://www.freiberg-service.de/en/accommodation-offers/accommodation.html>

- <http://www.elly-hostel.com/>

- <https://www.booking.com>

- <https://www.airbnb.de/s/FreibergSachs--Freiberg>

- Diving equipment

As part of the training, dives are carried out in local waters (lakes, flooded quarries) as well as in the Mediterranean. Water temperatures (between 4°C and 26°C) can vary greatly depending on depth and weather conditions. The diving equipment used must be appropriately maintained and suitable for cold water.

The complete equipment consists of a cold water first stage, 2 cold water regulators, cold water suit, gloves, hood, boots, jacket, buoy, torch, mask, fins, weights, snorkel, dive computer, 12 or 15 litre tank.

In Freiberg you can hire equipment from the “SDC TU Bergakademie Freiberg” or the dive shop “GeoDive”. If you use your own equipment, you need to have a valid certification about maintenance of your tank and regulator.

- Payment

Please send us the registration form to info@sdc.tu-freiberg.de

You will get a bill from the SDC for the fees, please use the exact reference number shown on the bill! Participation in the course is only possible after full payment of the course fee.

- Insurance

You should have adequate private insurance cover (e.g., foreign health insurance, liability insurance). During the training and the dives within the course participants have an accident



insurance covered by the “Unfallkasse Sachsen” when they are enrolled as guest student at TU Bergakademie Freiberg.

- Food

During the course there is the possibility to use the dining hall of the university (reduced prices lunch for guest students). Food is not included at the course fee.

- Website

You can find our website here: <https://tu-freiberg.de/en/sdc>

The website was completely redone and we are working on the translation. Some parts are already translated and more will follow. If you have questions, please get in touch with the SDC.

- Privacy policy

Personal data is requested from participants as part of the training programme and the examination of admission requirements. This data is only processed within the TU Bergakademie Freiberg and is not passed on to third parties.

All examination-relevant data such as examinations, course lists, evaluation sheets and grades are stored for 10 years.

Contact:

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