



ACUC ADVANCED DIVER - Curriculum and Standards Ref: acuc-st-adv. Last revised: June 2007

Foreword

The ACUC Advanced Diver course is the **second** mandatory diver level within the ACUC training ladder. This course can be taught, evaluated and certified by any ACUC Open Water Instructor or higher level. The main characteristics of this course is that it reviews and expands on matters already learnt in previous courses and also, introduces the students to different types of diving conditions. This course is also an introduction to different diving specialties, however, candidates do not get certified on those specialties, therefore, it is not a course intended to replace the specialty courses, but rather is a course designed to **introduce** the student to the different specialty courses.

This is an ACUC International standard and therefore is always subject to the different national or local legislation. In cases where legislation exist that differ from this standard, the ACUC country or area delegation if it exist, must request in writing to the ACUC main office (Canada or Spain) a “**Deviation**” from this standard to satisfy the legislation of the area, supporting their request with the appropriate documentation. Deviations, if requested, to be considered valid, must appear at the end of each specific standard document (Point 12)

In cases where the local or national legislation are more restrictive than the ACUC Standard, then the local legislation will prevail, but if the ACUC Standard is more restrictive, then the ACUC Standard will prevail, because by complying with the more restrictive ACUC Standard, logically the local legislation will be also complied with.

Regarding required training hours, none are specified because these could vary depending on many factors (number of students, diving environment, etc), therefore the training hours needed are dependant on the fulfilment of learning objectives. In the ACUC manuals and documents where hours are specified, these are only to be considered recommendations.

1. Scope

This Standard specifies safety related minimum competencies to be achieved in recreational scuba training at the ACUC Advanced diver level. This Standard applies only to contractual training and certification in recreational scuba diving.

2. Definitions

For the purposes of this standard and any other standard referenced as acuc-st-xxx, the following definitions apply. Please note that not all terms shown next might appear in this specific standard.

- 2.1 **ACUC:** Entity providing recreational scuba diving training systems and certification.
- 2.2 **basic equipment:** Equipment consisting of the following items:
 - ▶ mask
 - ▶ fins
 - ▶ snorkel
- 2.3 **breathing gas:** Appropriate mixture of oxygen and nitrogen.
- 2.4 **certification:** Confirmation that a student has completed all requirements of a course according to this Standard, as issued by ACUC.
- 2.5 **cold water:** Water less than 10°C from its highest average temperature or water of 10°C or less
- 2.6 **competencies:** What a diver can do once certified
- 2.7 **confined spaces:** condition that applies when there is no direct access to the surface, such inside a wreck, cave, etc.

- 2.8 confined water:** Swimming pool with a depth appropriate to the activity, or body of water that offers similar conditions (maximum depth 6 meters)
- 2.9 diving equipment:** Equipment consisting of the following items¹:
- ▶ mask,
 - ▶ fins,
 - ▶ snorkel,
 - ▶ cylinder,
 - ▶ regulator,
 - ▶ alternative breathing gas system, which could range from a simple octopus system to a duplicate breathing system with a separate breathing gas supply,
 - ▶ cylinder-support-system and buoyancy control device including (if appropriate) a quick release weight system,
 - ▶ submersible pressure gauge (breathing gas pressure monitor),
 - ▶ means to measure depth and time and to safely limit exposure to inert gas,
 - ▶ diving suit (if appropriate).
- 2.10 dry specialty:** Specialty course where no water training takes place, such as for example, First Aid, Oxygen Administration, etc
- 2.11 knowledge levels:**
- ▶ Basic: knows how...
 - ▶ Intermediate: knows how and why...
 - ▶ Advanced: knows how, why and also, knows how to teach it...
- 2.12 non certification scuba course:** Scuba course where the participants do not receive an ACUC certification at the end of the course, such as for example, scuba introduction, scuba refreshment, scuba buoyancy, etc
- 2.13 open water:** Body of water significantly larger than a swimming pool offering conditions typical of a natural body of water encountered in the region where training takes place.
- 2.14 prerequisites for training:** What a diver needs or conditions to be met prior to start training
- 2.15 reduced visibility:** condition that applies when diving at night or when visibility is less than an arm's length, for whatever the reason
- 2.16 scuba:** Self-contained under-water breathing apparatus.
- 2.17 scuba instructor:** A qualified individual, sanctioned by ACUC to teach, evaluate and certify divers.
- 2.18 theoretical knowledge:** knowledge imparted in a dry environment (classroom, pool deck, etc)
- 2.19 training open water dive:** open water training experience under direct supervision of a qualified instructor, comprising at least the following activities:
- ▶ briefing
 - ▶ preparation to dive
 - ▶ pre-dive checks
 - ▶ entry into water
 - ▶ descent procedures
 - ▶ under-water activity
 - ▶ ascent and surfacing procedures
 - ▶ exit from water
 - ▶ debriefing
 - ▶ post dive procedures
 - ▶ recording the dive.
- 2.20 water skills:** knowledge imparted inside a wet environment (pool water, sea water, etc)

3 Competencies of a certified, recreational ACUC Advanced Diver

In addition to the competencies of an ACUC Open Water Diver, an ACUC Advanced diver shall be trained to have sufficient competencies by knowledge, skill and experience to dive in open water with other scuba divers of any level. ACUC Advanced Divers shall dive within the following parameters

¹ Note: Specific environments may require appropriate additional equipment (e.g. an underwater navigational aid, knife/cutting device).

- ▶ dive to a maximum depth of 40 metres / 130 feet
- ▶ dive only when appropriate support is available at the surface,
- ▶ dive under conditions that are equal or better than the conditions where they were trained.
- ▶ practice specialised diving according to the subject matter learnt during the course, but only when accompanied by a Divemaster or higher level

If accompanied by an ACUC instructor, certified ACUC Advanced divers may gain progressive experience beyond these parameters (except depth) and develop competency in managing more challenging diving conditions designed to lead to higher qualifications. Where further instruction is required this can only be provided by a suitably qualified ACUC instructor. Where only further experience is required, this may be supervised by an ACUC Divemaster or similar.

4 Prerequisites for training

In order to qualify for enrolment in a course according to this Standard the student shall meet the following prerequisites:

- 4.1 Minimum age:** 12 years old. Parental or legal guardian consent is required when the applicant is a minor. ("minor" definition will be according to each country's legislation).
- 4.2 Health requirements:** Students shall be medically screened as suitable for recreational diving by means of an appropriate medical examination, or if the country's legislation where the course is taken allows it, an appropriate questionnaire. In any case of doubt, students shall be referred to proper medical resources. If the student is not examined by a physician, the student should be obliged to confirm by signature a written information given by the instructor on diseases or physical conditions which may be a diving related risk. Students shall be advised of the importance of appropriate regular medical examinations.
- 4.3 Previous certification:** ACUC Open Water Diver or similar with at least 2 hours bottom time experience (see also certifications requirements)

5 Training Ratios

- ▶ **Theory (classroom or pool):** No limit
- ▶ **Confined Water:** 10 students per Instructor, with an additional 4 students per Assistant Instructor or Divemaster, with an absolute maximum of 18 students.
- ▶ **Open Water:** 4 students per Instructor, with an additional 2 students per Assistant Instructor or Divemaster, with an absolute maximum of 8 students.

6 Introductory information

The following information shall be made available to the students prior to, or during the first class meeting.

- ▶ prerequisites according to 4,
- ▶ limitations of eventual qualification,
- ▶ scope of course,
- ▶ course procedures,
- ▶ costs, insurance and contractual issues according to national regulations,
- ▶ equipment requirements,
- ▶ certification requirements according to 10,
- ▶ diving related legislation and legal requirements.

7 Course content relating to theoretical knowledge

Candidates must already have the knowledge of an Open Water Diver, plus:

- 7.1 **Equipment Maintenance:** Students shall have a basic knowledge concerning the maintenance of diving equipment items.
- 7.2 **Surface Air Consumption:** Students shall have an intermediate knowledge of Surface Air Consumption calculations
- 7.3 **Physiology review:** Students shall have an intermediate knowledge of:
 - ▶ The Circulatory System
 - The Heart
 - The Blood Vessels
 - The Blood
 - ▶ The Respiratory System
 - The Air Ways
 - The Lungs
 - The Respiratory Cycle Phases
 - The Respiratory Rate
- 7.4 **Reduced Visibility Diving:** Students shall have a basic knowledge of:
 - ▶ Lack of light in open spaces
 - ▶ Muddy conditions in open spaces
 - ▶ Muddy conditions or lack of light in closed spaces
- 7.5 **Confined Spaces Diving:** Students shall have a basic knowledge of:
 - ▶ Differences with Decompression dives
 - ▶ Risks of this type of dives
 - ▶ Rules to take into account in this type of dives
- 7.6 **Underwater Navigation:** Students shall have a basic to intermediate knowledge of:
 - ▶ Procedures to obtain the correct direction
 - ▶ Compass use
- 7.7 **Underwater Biology and Ecology Notions:** Students shall have a basic to intermediate knowledge of:
 - ▶ The Marine Environment
 - ▶ Underwater Life
- 7.8 **Boatmanship Notions:** Students shall have a basic knowledge of Including:
 - ▶ Small Boats
 - ▶ Basic Navigation Notions

Besides the above subject matters, instructors can offer also, within the scope of this course, additional training regarding diving conditions related to their specific areas, such for example, Drift Diving, Dry Suit Diving, etc

8 Course content relating to scuba skills

- 8.1 **Confined water scuba skills:** Besides the already acquired skills of an Open Water Diver, students shall be able to perform the following skills. Each skill shall be mastered in confined water before that skill is performed in open water.
 - ▶ diving equipment assembly and disassembly with eyes closed
 - ▶ putting the equipment on and taking it off with eyes closed
 - ▶ act as donor and receiver of an alternative breathing gas source with eyes closed
 - ▶ proper use of a flashlight underwater
 - ▶ basic hand signals using a flashlight
 - ▶ recognisement of dive area during daylight
 - ▶ shore and underwater signalling
 - ▶ underwater buoyancy equipment and tank removal and replacement
 - ▶ special confined spaces finning techniques
 - ▶ compass use
 - ▶ compass reading
 - ▶ distance estimation methods

Besides the above practical skills, instructors can offer also, within the scope of this course, additional training regarding diving conditions related to their specific areas, such for example, Drift Diving, Dry Suit Diving, etc

8.2 Open water scuba skills: Besides the already acquired skills of an Open Water Diver, students shall be able to perform the following skills in conditions typical of the local environment.

- ▶ putting the equipment on and taking it off with eyes closed
- ▶ proper use of a flashlight underwater
- ▶ basic hand signals using a flashlight
- ▶ recognisement of dive area during daylight
- ▶ shore and underwater signalling
- ▶ special confined spaces finning techniques
- ▶ compass use
- ▶ compass reading
- ▶ distance estimation methods

Besides the above practical skills, instructors can offer also, within the scope of this course, additional training regarding diving conditions related to their specific areas, such for example, Drift Diving, Dry Suit Diving, etc

9 Practical training parameters

9.1 All under-water skills in confined water shall be introduced, directly supervised and evaluated by an ACUC instructor, who shall be in the water during each session. The scuba instructor shall be in direct control of students throughout all sessions.

9.2 Before participating in open water dives a student shall have demonstrated sufficient theoretical knowledge and scuba skills in confined water to be able to perform the open water dives in the prevailing conditions.

9.3 The maximum depth during training dives shall not exceed 25 metres / 80 feet. Except in the case of a Deep Dive, where the absolute maximum depth can be 40 metres / 130 feet.

9.4 During open water dives the student shall at least be equipped with diving equipment according to 2.9.

9.5 All under-water skills in open water shall be introduced, directly supervised and evaluated by an ACUC instructor. The scuba instructor shall be in the water and in charge of each open water dive.

9.6 As per clause 5, the absolute maximum number of students per scuba instructor in ideal conditions for supervision and escorting under water is four. The maximum number of students per qualified assistant for supervision and escorting under water is two. At no time shall a student in or under water be left without supervision.

9.7 Prior to open water dives the scuba instructor shall prepare an “emergency plan”. In the immediate vicinity of the dive site there shall be:

- ▶ a suitable first aid kit
- ▶ an emergency oxygen unit with a capacity of delivering at least 15 l/min. for at least 20 min.
- ▶ communication system suitable for alerting emergency services.

9.8 The scuba instructor shall cancel or abort the open water dive if environmental conditions or a student’s physical or mental condition make this necessary.

9.9 A maximum of 3 daily training dives will be allowed

10 Assessment and certification requirements

10.1 Knowledge: The student shall demonstrate, by means of the written test² supplied by ACUC, knowledge of scuba diving theory according to 7 and knowledge of skills according to 8.

10.2 Scuba Skills: The student shall satisfactorily demonstrate to an ACUC instructor, the scuba skills according to 8.

² If for some reason, the student can not do a written test, then the Instructor can do an oral examination to the student based on the written test provided by ACUC and if this is the case, the Instructor will transfer the student's oral answers to the written test. Whatever the case, the written test must be completed, either directly by the student or indirectly by the Instructor, using the student's oral answers.

10.3 Minimum Dives: The student must have at least 10 hours of bottom time or 20 open water dives³ before obtaining the certification

Instructors can, if they wish, offer additional tests to the student, however, the **ACUC provided test must be done.**

11 Training Dives

To be certified students shall complete at least **four** qualifying training open water dives under the direct supervision of an ACUC instructor. Of the four dives, one must be a night dive⁴, another a simple wreck penetration dive (easy access exit) or easy cave dive (exit point always within view) and another an underwater navigation dive. Instructors may add additional dives to fit their environment. The underwater duration of each of these qualifying open water dives shall be at least 20 min (except in cases of extreme cold water - below 10°C - where 15 minutes will suffice, or in cases of deep dives, where the maximum time will be that which does not require mandatory decompression stops, depending on the depth reached). In no case training dives can be mandatory stop decompression dives, unless a decompression dive is planned as part of the training experience of the course.

12 Deviations

None requested

³ Considering a non training open water dive to be at least:

- Briefing
- Putting equipment on
- Buddy and own equipment check
- 20 minutes minimum bottom time at a minimum depth of 10 feet (3 meters)
- Taking equipment off
- Debriefing and dive logging

⁴ Night training dives must be in a place with direct access to the surface. No night training dives in wrecks, caves or under ice are therefore allowed. See also point 9.3. regarding depth.