



# ACUC RESCUE DIVER - Curriculum and Standards

## Ref: acuc-st-rsd Dec 2003

### Foreword

The ACUC Rescue Diver course is the **third** 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 the students that successfully complete the course, will be able to recognise and react to diving emergencies. Also, it covers diving related First Aid. To improve diving safety in general, this course is the minimum level that ACUC recommends all its divers to get.

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 Rescue 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 metres)

- 2.9 diving equipment:** Equipment consisting of the following items<sup>1</sup>:
- < 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 Rescue Diver

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

- < dive to a maximum depth of 40 metres / 130 feet
- < dive only when appropriate support is available at the surface,

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

< dive under conditions that are equal or better than the conditions where they were trained.

If accompanied by an ACUC instructor, certified ACUC Rescue 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:** 16 years old. Age of Majority according to national legislation where the course is taken. There are no “Junior” qualifications for this level available for minors
- 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:** To start the course: ACUC Advanced Diver or similar with at least 12 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 20 students.
- < **Open Water:** 6 students per Instructor, with an additional 2 students per Assistant Instructor or Divemaster, with an absolute maximum of 12 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 Advanced Diver, plus:

- 7.1 **Rescuer Readiness:** Students shall have an intermediate knowledge of:
  - < Organisation prior to the dive

- < Underwater Communications
- < Boat to Diver Communications
- 7.2 Aggressions produced by Marine Life:** Students shall have an intermediate knowledge of:
  - < Wounds by Contact
  - < Wounds by Stings
  - < Wounds by Bite
  - < Shock
- 7.3 Lung Overexpansion and Decompression Accident:** Students shall have an intermediate knowledge of:
  - < Lung Overexpansion
  - < Decompression Accident
  - < How to differentiate the symptoms
- 7.4 Drowning and Reanimation Techniques:** Students shall have an intermediate knowledge of
  - < The Blue Drowned
  - < The White Drowned
  - < Cardio Pulmonary Reanimation
  - < Complications of the Cardio Pulmonary Reanimation
  - < Pulmonary Reanimation Methods
  - < Clearing the Airways
  - < Heart Reanimation: The External Heart Massage
- 7.5 Stress and Panic:** Students shall have an intermediate knowledge of:
  - < Incident or Accident
  - < The Stress
  - < Types of Stress
  - < Physiology of the Stress
  - < Recognition of Stress Symptoms
  - < How to act
  - < The Panic
  - < Signs of Panic
  - < Self-Rescue
  - < Rescuing Others
  - < What can be done to diminish panic episodes
- 7.6 Sea Sickness and Vertigo**
- 7.7 Equipment Problems**
- 7.8 Rescue Performance Theory:** Students shall have an intermediate knowledge of:
  - < "Dry" Rescue
  - < Swimming Rescue
  - < Victim approaches
  - < Holds and Releases
  - < Water Tows Techniques
  - < Surface Tows and Artificial Breathing
  - < Placement of Unconscious Victim
  - < Rescue at Depth: Ascent Techniques
  - < Use of the victim's vest
    - Ⓒ Advantages
    - Ⓒ Disadvantages
  - < Use of the rescuer's vest
    - Ⓒ Advantages
    - Ⓒ Disadvantages
  - < Taking a Victim out of the water
- 7.9 Basic Searching Techniques:** Students shall have a basic knowledge of:
  - < Lost in Open Sea
  - < Lost under Ice
  - < Lost in a Wreck
  - < Lost in a Cave
  - < Diver entrapped in nets or underwater vegetation
- 7.10 Currents, Surf and Tides**

## 8 Course content relating to scuba skills

**8.1 Confined water scuba skills:** Besides the already acquired skills of an Advanced 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.

- < "Dry" Rescue
- < Swimming Rescue
- < Victim approaches
- < Holds and Releases
  - C Neck hold
  - C Waist hold
  - C Wrist hold
  - C Back hold
- < Water Tows Techniques
  - C Without Equipment
    - , Facilitated
    - , Shoulders
    - , Shoulder and Chin
    - , Head
    - , Arm
  - C With Basic Equipment
    - , Unconscious wounded, conscious and restless, or sea with waves
    - , Conscious and calmed wounded
    - , Conscious and restless wounded
  - C With Scuba Equipment
    - , Unconscious wounded, conscious and restless, or sea with waves
    - , Conscious and calmed wounded
    - , Conscious and restless wounded
- < Surface Tows and Artificial Breathing
- < Placement of Unconscious Victim
- < Rescue at Depth: Ascent Techniques
  - C Lack of Air
    - , Conscious and calmed victim
    - , Conscious and restless or disoriented victim
  - C With Air
    - , Conscious victim that can not ascend
    - , Unconscious victim
  - C Use of the rescuer's vest
  - C Intervention Methods
    - , Lack of Air
    - , With Air
  - C Hoistings
    - , Frontal
    - , Lateral
    - , Back
    - , Back by Horse Mount
- < Taking a Victim out of the water
  - C Rescuer with access to people
  - C Rescuer alone with conscious victim
  - C Rescuer alone with unconscious victim
- < Search in Circles
- < Search by Online Haulage
- 8.2 Open water scuba skills:** Besides the already acquired skills of an Advanced Diver, students shall be able to perform the following skills in conditions typical of the local environment.
- < "Dry" Rescue
- < Swimming Rescue
- < Victim approaches
- < Water Tows Techniques

- C With Basic Equipment
  - , Facilitated
  - , Shoulders
  - , Shoulder and Chin
  - , Head
  - , Arm
  - , Unconscious wounded, conscious and restless, or sea with waves
  - , Conscious and calmed wounded
  - , Conscious and restless wounded
- C With Scuba Equipment
  - , Unconscious wounded, conscious and restless, or sea with waves
  - , Conscious and calmed wounded
  - , Conscious and restless wounded
- < Placement of Unconscious Victim
- < Rescue at Depth: Ascent Techniques
  - C Lack of Air
    - , Conscious and calmed victim
    - , Conscious and restless or disoriented victim
  - C With Air
    - , Conscious victim that can not ascend
    - , Unconscious victim
  - C Use of the rescuer's vest
  - C Intervention Methods
    - , Lack of Air
    - , With Air
  - C Hoistings
    - , Frontal
    - , Lateral
    - , Back
    - , Back by Horse Mount
- < Taking a Victim out of the water
  - C Rescuer with access to people
  - C Rescuer alone with conscious victim
  - C Rescuer alone with unconscious victim
- < Search in Circles
- < Search by Online Haulage

## 9 Practical training parameters

- 9.1 All underwater 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 Prior to the first open water dive the student shall effectively show proof of, or demonstrate, to a scuba instructor the following watermanship skills, without the use of mask, fins, snorkel, or other swimming aids:
  - < 100 m distance swimming,
  - < 10 minutes survival swim/float.
- 9.3 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.
- 9.4 The maximum depth during training dives shall not exceed 15 metres / 50 feet
- 9.5 All open water dives shall be conducted during daylight hours in water that allows direct vertical access to the surface. Open water dives therefore shall not be conducted in under-water caves or below ice.
- 9.6 During open water dives the student shall at least be equipped with diving equipment according to 2.9.

- 9.7 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.
- 9.8 As per clause 5, the absolute maximum number of students per scuba instructor in ideal conditions for supervision and escorting under water is six. 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.
- 9.9 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.
- 9.10 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.
- 9.11 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 test<sup>2</sup> 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.
- 10.3 **Minimum Dives:** The student must have at least 15 hours of bottom time 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 **two** qualifying training open water dives under the direct supervision of an ACUC instructor. The underwater duration of each of these qualifying open water dives shall be at least 30 min, except in cases of cold water where 20 minutes will suffice.

## 12 Deviations

Deviations only apply to the country or area mentioned.

Country or Area	Deviation relating to	Reason	Deviation Approval
Catalonia (Spain)	Minimum number of dives to obtain official certificate of “Buceador 1 <sup>a</sup> ”	DOGC 3326; Page 1915 of 13/02/2001, where it is said that the minimum number of dives for the equivalent official certificate to ACUC Rescue Diver must be 40	In Catalonia (Spain), to obtain the certification of ACUC Rescue Diver, candidates must have 20 hours bottom time rather than 15 hours.

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<sup>2</sup> 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.