



ACUC DIVEMASTER - Currículum and Standards Ref: acuc-st-div May 2002

Foreword

The ACUC Divemaster course is the **first** mandatory professional level within the ACUC training ladder. This course can be taught 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 act as a Dive Controller, lead certified divers in open water dives as a Dive Guide, assist in the training of new divers, teach some non certification ACUC Scuba courses and also, teach, evaluate and certify some “dry” specialties (specialties where no water training is involved) as long as the Divemaster holds the corresponding Specialty Instructor rating.

This is an ACUC International standard and therefore is always subject to the different national or local legislations. In cases where legislations 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 legislations 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 fulfillment 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 Divemaster 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 items:
- < 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).

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

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 Divemaster

An ACUC Divemaster shall be trained to have sufficient competencies by knowledge, skill and experience to dive an act as a dive guide in open water of certified divers, to assist in the training of new divers and to give some scuba non certification courses and dry specialty courses. ACUC Divemasters shall dive within the following parameters

- < dive and lead divers to a maximum depth of 40 meters / 130 feet

- < dive and ensure that others dive only when appropriate support is available at the surface,
- < dive and ensure that others dive under conditions that are equal or better than the conditions where they were trained.
- < assist certified divers in new environments which the Divemaster is familiar with.

If accompanied by an ACUC instructor, certified ACUC Divemasters 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 or experience is required this can only be provided by a suitably qualified ACUC instructor.

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:** 18 years.
- 4.2 Health requirements:** Students shall be medically screened as suitable for recreational diving by means of an appropriate medical examination. Students shall be advised of the importance of appropriate regular medical examinations.
- 4.3 Previous Certification:** ACUC Rescue Diver or Advanced Diver with the Rescue Specialty or similar, with at least 21 hours bottom time experience (see also clause 10: Assessment and Certifications Requirements). Also, must have, or alternatively, do during the Divemaster course, the specialties of ACUC First Aid Provider and Oxygen Administration Provider. For the purpose of this standard, it is assumed that the candidates already have these specialties.

5 Instructor:Student Ratios during training

- < **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:** 8 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 a Rescue Diver, plus:

- 7.1 The Divemaster and the Law:** Students shall have a basic knowledge of:
 - < Legal Implications
 - < Negligence and duty of care

- < Standard of care
- < Liability Insurance
- < Waivers, Releases and Indemnity Agreements
- < Minors
- < Boat Charters
- < Wrecks
- 7.2 Decompression Tables:** Students shall have an intermediate knowledge of:
 - < US Navy Tables
 - < Bülkman Tables
 - < DCIEM Tables
- 7.3 The Divemaster Mission:** Students shall have an intermediate knowledge of:
 - < Dive planning and Organisation
 - < Considerations regarding the dive area
 - ⊆ Ocean
 - ⊆ Lake
 - ⊆ Quarry
 - ⊆ River
 - ⊆ Night
 - ⊆ Ice
 - ⊆ Cave
 - ⊆ Boat
 - ⊆ Deep (decompression situations)
 - < Group Briefing
 - < Pre Dive Organisation
 - < Control at Dive Site
 - < Pre Dive Briefing
 - < Pre Dive Check
 - < Surface Support Organisation
 - < Water Entries
 - < Dive Control
 - < Water Exits
 - < Debriefing
 - < Divemaster Kit
- 7.4 Decompression and the Divemaster:** Students shall have an intermediate knowledge of:
 - < The Divemaster and Repetitive Dives
 - < The USN Tables and the Divemaster
 - < Peculiarities of the USN Tables
 - < Cold Water and High Altitude Problems
 - < Dive Table Terminology
 - < The Doppler Ultrasonic Bubble Detector
 - < Planning Decompression Dives
- 7.5 Handling Diving Emergencies:** Students shall have an intermediate knowledge of:
 - < Prevention
 - < Drugs
 - < Contraindications to Diving
 - ⊆ Absolute
 - ⊆ Relative
 - ⊆ Temporary
 - < Emergency Situations and Procedures
 - < First Aid Response
- 7.6 First Aid for Divemasters:** Students shall have an intermediate knowledge of:
 - < Elements of First Aid
 - ⊆ Case Management
 - ⊆ Golden Rules
 - ⊆ Problems
 - ⊆ Potential Dive Injuries
 - ⊆ Other Possible Problems
 - < The Circulatory System

- C The Blood in the Organism
- C Some important notions
- C Influence of the dive in the Circulatory System
- < The Respiratory System
 - C Hematosys
 - C Breathing Mechanical Processes
 - C The diferent respiratory capacities
- < The First Aid Kit
- 7.7 Searches:** Students shall have an intermediate knowledge of:
 - < The Search
 - < Diver Search Patterns
 - < Towing Methods
 - < Body Recovering
- 7.8 Basic Seamanship related to Diving:** Students shall have an intermediate knowledge of:
 - < Weather
 - < Safety Equipment
 - < Dive Flags
 - < Dives involving several boats
 - < Leaving the dive site
 - < Rules for ropes
- 7.9 Dive Signals:** Students shall have a basic knowledge of:
 - < Recall Signals
 - < Surface Signals
 - < Rope Signals
 - < Lights
 - < Emergency Signals
- 7.10 Divemaster Log Book**
- 7.11 Physical Laws and their Effect** Students shall have an intermediate knowledge of:
 - < Buoyancy and Archimedes Principle
 - < Thermodynamics: Basic Principles
 - < Dalton's Law: Its effect on diving
 - < Henry's Law: Its effect on diving
- 7.12 Dive Compressors** Students shall have a basic knowledge of:
 - < Basic Description
 - < How a high pressure Compressor works
 - < Four Cylinder Compressor description
 - < How to use a Compressor to fill tanks
 - < Terminology
- 7.13 Teaching Techniques** Students shall have an intermediate knowledge of:
 - < Factors that affect the Learning Process
 - < Developing a Lesson Plan
 - < Relaxation Techniques
 - < Learning Laws
 - < Building Confidence
 - < Satisfying students needs
 - < Visualization Techniques
 - < Stress Recognisement
 - < Theory Training Procedures
 - < Skill Practical Training Procedures
 - < Open Water Training Procedures
 - < Teaching the ACUC Snorkel course
 - < Teaching the ACUC Introduction to Dive course
- 7.14 ACUC Standards and procedures**

8 Course content relating to scuba skills

8.1 Confined water scuba skills: Besides the already acquired skills of a Rescue 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.

- < Dive planning and Organisation
- < Group Briefing
- < Pre Dive Organisation
- < Control at Dive Site
- < Pre Dive Briefing
- < Pre Dive Check
- < Surface Support Organisation
- < Water Entries
- < Dive Control
- < Water Exits
- < Debriefing
- < Emergency Situations and Procedures
- < Diver Search Patterns
- < Towing Methods
- < Teaching the ACUC Snorkel course
- < Teaching the ACUC Introduction to Dive course

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

- < Group Briefing
- < Pre Dive Organisation
- < Control at Dive Site
- < Pre Dive Briefing
- < Pre Dive Check
- < Surface Support Organisation
- < Water Entries
- < Dive Control
- < Water Exits
- < Debriefing
- < Diver Search Patterns
- < Towing Methods
- < Teaching the ACUC Snorkel course
- < Teaching the ACUC Introduction to Dive course

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:

- < 150 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 20 meters / 65 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 underwater 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 eight. 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 (**) 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 40 hours of bottom time before obtaining the certification

(**) 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.

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

None requested