

Syllabus Number: 3.B.29 / BOD no 181 (04-18-2013)

CMAS Advanced Skills Diver Training Programme Minimum Training Programme Content

1. Required theoretical knowledge

1.1 Subject Area 1: Introduction

- 1.1.1 The participant shall be provided with all such information, as provided for in Clause 4.2 of Chapter 1 in order to enable him to take an informed decision about his participation in the CMAS Advanced Skills Diver Training Programme.
- 1.1.2 The participant shall be provided with the information about the CMAS as provided for in Clause 4.3 of Chapter 1.

1.2 Subject Area 2: Equipment

- 1.2.1 The participant shall have an appropriate knowledge concerning the physical characteristics operating principles, maintenance and use of the following items of specific diving equipment.
 - 1.2.1.1 Specific Equipment
 - 1.2.1.1.1 Single tank/cylinder with valve for installing two DIN regulators.
 - 1.2.1.1.2 Two sets of regulators, one of the second-stage regulators must be on a 1.5 -2.1 meter hose and the other must be fitted with a necklace. One of the first stages must supply a pressure gauge fitted with a bolt clip and provide inflation for a dry suit (where applicable).
 - 1.2.1.1.3 A rigid back plate of metal construction with minimal padding, held to the diver with nylon webbing. This webbing must support five D-rings.
 - 1.2.1.1.4 An inflatable buoyancy device adaptable to the back plate. Wing size and shape should be appropriate to tank/cylinder size.
 - 1.2.1.1.5 At least one time/depth measuring device.
 - 1.2.1.1.6 Mask and fins: Mask should be low-volume; fins should be rigid, non-split.
 - 1.2.1.1.7 At least one cutting device.
 - 1.2.1.1.8 Wet notes.
 - 1.2.1.1.9 Spool with at least 30m of line.
 - 1.2.1.1.10 An SMB.
 - 1.2.1.1.11 A compass.

Note: Prior to the commencement of class, students should consult with a CMAS representative to verify equipment requirements

1.3 Subject Area 3: Physics and theory of Advanced skills diving

- 1.3.1 The participant shall have an appropriate knowledge concerning the physical principles and their application to Advanced diving skills equipment and hazards relating to:

- 1.3.1.1 Buoyancy and trim
- 1.3.1.2 Streamlining and equipment configuration
- 1.3.1.3 Propulsion techniques
- 1.3.1.4 Situational awareness
- 1.3.1.5 Communication

1.4 **Subject Area 3: Land Drills and topics**

- 1.4.1 Dive team protocols
- 1.4.2 S-drill and valve-drill
- 1.4.3 Equipment fit and function
- 1.4.4 Propulsion techniques
- 1.4.5 Pre-dive drills
- 1.4.6 Surface marker deployment

2 Required SCUBA skills

- 2.1 Demonstrate proficiency in safe diving techniques; this would include pre-dive preparations, in water activity, and post-dive assessment.
- 2.2 Demonstrate awareness of team-member location and a concern for safety, responding quickly to visual cues and dive-partner needs.
- 2.3 Efficiently and comfortably demonstrate how to donate gas to an out-of-gas diver.
- 2.4 Comfortably demonstrate at least three propulsion techniques that would be appropriate in delicate and/or silty environments; students should demonstrate comprehension of the components necessary for a successful backward kick.
- 2.5 Demonstrate a safe and responsible demeanour throughout all training.
- 2.6 Demonstrate proficiency in the ability to deploy a surface marker buoy without making contact with the bottom, while using a spool
- 2.7 Demonstrate proficiency in underwater communication.
- 2.8 Demonstrate basic equipment proficiency and an understanding of the CMAS equipment configuration.
- 2.9 Demonstrate a comfortable demeanor while swimming without a mask
- 2.10 Demonstrate good buoyancy and trim, especially during the open water skills/exercises.
- 2.11 Demonstrate aptitude in the following open-water skills: mask clearing, mask removal and replacement, regulator removal and exchange, long-hose deployment.
- 2.12 Demonstrate safe ascent and descent procedures.
- 2.13 Demonstrate proficiency in executing a valve drill.