

CMAS Scientific & Sustainability Committee

Advanced Underwater Geology Course (AUGC)

2018

The non-professional CMAS Scientific Specialty Courses (SSC) combines the expertise of marine and freshwater scientists, underwater geologists and archaeologists, diving officers, administrators, legislators, individual divers, from different parts of the world scientific diving community. Therefore we revised the last version with the colleagues in the CMAS Scientific & Sustainability Committee (SC) mentioned below, who helped to produce this new standards, and acknowledges the help and advice given by many other people through letters or oral comments.

CMAS Scientific & Sustainability Committee, 2018

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- Director for Underwater Cultural Heritage Member for Underwater Cultural Heritage
- Director for Scientific Diving

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Advanced Underwater Geology Course

Minimum 5 days 15 theoretical teaching units (TTU) 15 practical teaching units (PTU) 4-8 dives

1.1. Aim of course

- to provide the diver a deep personal experience of underwater geology
- to give a advanced comprehensive information on underwater geology
- to teach methods of geo-sciences which can be used by sports divers
- to enable the diver to investigate and evaluate the underwater geology

1.2. Student performance objectives

By the end of the course the diver should

- be familiar to basic geological methods
- be able to identify important mineral groups
- dive sustainably due to his/her more comprehensive understanding of environment

1.3. Prerequisites for participants (minimum requirements)

- age of 16 years
- CMAS** or equivalent
- valid medical certificate

1.4. Instructor/student ratios in open water

- depending on the visibility and diving level

1.5. Instructor requirement (see SC administrative text)

- CMAS** diving licence and 100 dives
- academic background in the respective field, or
- several years professional experience in geology
- teaching abilities
- a high sensibility for sustainable diving

1.6. Speciality Course requirements:

- adequate lecture place
- adequate dive site
- identification books for minerals
- geology presentation
- geology scripts or text books
- teaching material (rock hammers, spades, sedi-compass, GPS, grabs, simple microscopes...).

1.7. Theoretical teaching units (the instructor sets thematic emphases)

- advanced knowledge of aspects taught in the Geology Course
- navigation and orientation
- bathymetry
- acoustic and optical methods
- equipped working boats and swimming platforms

- tools for geologic sampling
- handling of samples
- physical and geochemical properties

1.8. Practical teaching units

- observations and sampling depending on the dive site
- water sampling and water analysis
- micropaleontology work
- sedimentological sampling
- conservation, transporting, storage methods

1.9. Certification

- control of success by the instructor
- all divers having successfully completed all components of the course will be issued with the appropriate CMAS Advanced Underwater Geology Course Card
- the brevet is valid permanently

All questions should be addressed to the President of the CMAS Scientific Committee CMAS H.Q. Viale Tiziano, 74 00196 Rome, Italy Tel. +39-06-32 11 05 93 Fax +39-06-32 11 05 95 Email: <u>sci@cmas.org</u> <u>www.cmas.org</u>