

This section outlines the Ocean Diver course and provides guidance and definitions specific to the Ocean Diver grade. Much of this information is common to many of the lessons and hence is consolidated here, rather than repeated in each lesson.

## Definition of an Ocean Diver

An Ocean Diver is defined as a diver who is competent to conduct dives:

- with another Ocean Diver or with a Sports Diver, within the restrictions of the conditions already encountered during their training
- with a Dive Leader or higher grade, to expand their experience beyond the conditions encountered during their training, under the supervision of a Dive Manager.
- to a depth which is initially limited to the maximum experienced during training, but which can subsequently be extended progressively, under the supervision of a Nationally Qualified Instructor (NQI), to a maximum of 20m
- using breathing gas mixes of 21%, 32% or 36% O<sub>2</sub>.
- not requiring mandatory decompression stops
- under the on-site supervision of a Dive Manager with respect to site selection, conditions and dive plan
- where other divers, capable of providing assistance and rescue, are available at the surface
- within BSAC safe diving recommendations

## Ocean Diver Course Outline

The Ocean Diver Course consists of the following elements:

- seven classroom lessons
- a theory assessment
- a basic swimming assessment
- five Sheltered Water lessons
- five Open Water lessons. Subject to the conditions detailed later in this section, the five lessons may be condensed into four

All practical training in both Sheltered and Open Water includes the achievement of specific performance standards at appropriate points throughout the lessons.

## Instructor Requirements

Ocean Diver Training is required to be carried out by, or supervised by, a suitably qualified BSAC Instructor detailed as follows:

- **Assistant Diving Instructors** qualified to **Sports Diver** - can teach classroom,

sheltered water lessons under on-site supervision and open water lessons under the direct supervision of an Instructor who holds the minimum qualification of BSAC Open Water Instructor.

- **Assistant Diving Instructors** qualified to **Dive Leader** - can teach classroom, sheltered water lessons, and open water lessons under the on-site supervision of an Instructor who holds the minimum qualification of BSAC Open Water Instructor.
- **Assistant Open Water Instructors** - can teach Classroom and Sheltered Water lessons under on-site supervision and Open Water lessons under on-site supervision of an Instructor who holds the minimum qualification of BSAC Open Water Instructor.
- **Theory Instructor** - can teach Classroom lessons unsupervised.
- **Practical Instructor** - can teach Sheltered Water and Open Water lessons unsupervised.
- **Open Water Instructor** - can teach all elements of the Ocean Diver Course.

## Student/Instructor ratios

For practical lessons, student/instructor ratios should comply with the following guidelines:

**Sheltered Water lessons** – The Sheltered Water lesson notes assume the most likely scenario of lessons being carried out in a swimming pool, where time constraints impose a one hour limit. In order that all students can receive effective tuition during this time, a ratio of four students per instructor is assumed.

In other circumstances this ratio may need to be reduced appropriate to the water conditions and time available.

**Open Water lessons** – Time constraints in Open Water are generally imposed by the students' breathing gas consumption or cold. The lesson contents assume a ratio of a maximum of two students per instructor, to ensure that each student receives effective tuition before breathing gas supplies are exhausted, or cold becomes too great a distraction. Where students are using protective clothing for the first time, it may be prudent to reduce this ratio to one-to-one.

Where conditions permit longer lessons, this ratio may be increased to a maximum of four students per instructor provided that:

- all students can receive **effective** tuition within the time available
- underwater visibility permits adequate monitoring of **all** students at **all** times
- the number of ascents/descents required is within safe decompression limits

For both **Sheltered and Open Water lessons**, the above ratios may be further increased to a ratio of a maximum of six students per instructor provided that:

- all students can receive **effective** tuition within the time available
- underwater visibility is a minimum of 5 metres
- the instructor is a Nationally Qualified Instructor of a minimum grade of Open Water Instructor
- the instructor has the assistance of another diver, minimum qualification Dive Leader, to monitor the safety and control of students
- the lesson briefing includes clear directions as to the role of the assisting diver during skills instruction
- for any exploratory dive elements of Open Water lessons, clear allocation is made as to which students, for buddy monitoring purposes, are to be led by the instructor and which by the assisting diver

### Equipment Configuration

For this initial diver training in Sheltered Water, student equipment should be kept to a simple configuration, ie.

- a single cylinder
- Buoyancy Compensator (BC)
- regulator equipped with main demand valve, Alternative Supply (AS) demand valve and cylinder contents gauge
- mask, fins and snorkel
- weightbelt or integrated weights where necessary

When progressing to Open Water lessons the equipment should also include

- depth gauge and watch/timer
- protective clothing where appropriate

Instructors should wear a similar configuration of equipment to the students although, for Open Water lessons, an AS supplied from an independent gas supply ('pony' cylinder) is recommended.

Rebreathers are not to be used by anyone participating in in-water lessons or experience dives involving trainee Ocean Divers.

### Definitions

Certain terms are used throughout this section of the Handbook which are defined as follows:

**Sheltered Water** – a well maintained swimming pool or water which provides similar conditions, eg. is generally less than 4m deep, with a stepped or gently shelving open bottom of firm composition, has adequate visibility (minimum 5m), and is free from significant water movement from either waves

or currents. Within Sheltered Water, depths are defined as follows:

- **standing depth** – water that is between waist and chest deep allowing students to either stand comfortably, or to kneel and be fully submerged
- **deeper water** – water that is from approximately 2m to 4m in depth

**Open Water** - water encompassing conditions beyond those defined for Sheltered Water to a maximum of 20m deep, encompassing a variety of topography and underwater life, and which may have some water movement due to waves or current (max 0.5kn). Visibility will generally be in excess of 4m but may, on appropriate occasions, be less.

### Lesson Sequencing

Classroom Lessons are structured to provide pre-requisite knowledge appropriate to different elements of the Sheltered and Open Water lessons. To ensure that pre-requisite knowledge is covered prior to the corresponding practical elements, Classroom, Sheltered Water and Open Water lessons should be run in an integrated sequence as follows:

Classroom Lesson	OT1	Ocean Diver Training
Sheltered Water Lesson	OS1	Being Underwater
Classroom Lesson	OT2	Diving Equipment and Diving Signals
Sheltered Water Lesson	OS2	Basic Skills
Classroom Lesson	OT3	The Body and Effects of Diving
Sheltered Water Lesson	OS3	Developing Skills
Classroom Lesson	OT4	Planning to go Diving
Sheltered Water Lesson	OS4	Beyond the Basics
Classroom Lesson	OT5	Going Diving
Sheltered Water Lesson	OS5	Safety Skills
Classroom Lesson	OT6	What Happens If?
Open Water Lesson	001	The First Open Water Dive
Classroom Lesson	OT7	Enjoying Your Diving
Open Water Lesson	002	The Second Open Water Dive
Open Water Lesson	003	The Third Open Water Dive
Open Water Lesson	004	The Fourth Open Water Dive
Open Water Lesson	005	The Fifth Open Water Dive

## Classroom Lessons

The first classroom lesson (OT 1) introduces the students to the BSAC in general and to the particular branch/centre. The visual aids for this lesson cover the BSAC in general, but because of the variation involved, will need to be adapted to include any relevant branch/centre information.

## Sheltered Water Lessons

Being the initial training that divers receive, the Ocean Diver lessons are structured very much on the 'less haste more speed' principle. Instructors should take care to view all aspects from the student's point of view, as their perceptions will be very different to those of divers who are more comfortable under water.

The lessons concentrate on the students acquiring basic skills, such as buoyancy control, finning etc, to a level where they become second nature, and students become relaxed underwater and develop confidence in their own abilities. This builds a firm foundation on which other skills, such as navigation or the use of Surface Marker Buoys, can be overlaid in future Sports Diver training. Failing to achieve this firm foundation at this stage will only make the acquisition of these later skills more difficult and protracted.

A further important aspect of this foundation is developing the 'buddy' concept from the outset. Instructors should underline this role by teaching the benefits of buddy assistance while kitting up/de-kitting, the importance of the buddy check prior to **every** dive, and regular monitoring of breathing gas status (both own and buddy's) while underwater. This emphasis should take place right from the earliest Sheltered Water lesson.

The structure of the lessons is based on the demo/mimic/assess principle. Given the very inexperienced nature of the students at this stage, instructors should not rely on the students remembering what every exercise is that they are going to do from the briefing. Demonstrating every exercise will ensure that the students understand what is expected of them at each point in the lesson.

A number of repeat exercises are included for consolidation of certain skills. It is important that these are carried out so that the skills become second nature to the students and require less mental effort.

Where Sheltered Water lessons are conducted in a swimming pool, the transition to Open Water conditions can be eased by including an additional lesson where protective clothing is worn in order to give students some familiarity with it, and to enable an initial assessment of the weight required to be made. In warm pool water however, students should be carefully monitored to avoid them overheating.

The encumbrance of hoods and gloves on skills such as mask clearing, mouthpiece clearing, and

buoyancy control can also be introduced. For these thermal considerations are less of an issue as they can be experienced in isolation from the rest of the suit.

## Open Water Lessons

The emphasis on the Open Water dives is to take the skills already taught during the Sheltered Water lessons into the Open Water environment. At the same time instructors should remember that this needs to be an enjoyable experience by spending as much time as possible underwater, teaching students to enjoy just being there, as well as developing their skills. Whilst drills and exercises will form a very important part of the divers training, instructors should remember their feelings when they first venture into Open Water.

As dives progress, students should not just be briefed on the lesson content, but should also have the dive planning considerations (depths, time, route, breathing gas consumption etc.) explained to them. The buddy system should continue to receive emphasis and instructors should also remain conscious that they are seen as a role model at **all** times and ensure that their personal diving skills reflect this.

Some Open Water lessons involve multiple ascents. Where these occur, decompression considerations dictate that they be performed at the start of diving activities and before diving to any greater depth. Instructors should ensure that the impact on decompression considerations for the remainder of the particular lesson, and on any subsequent diving activities, are taken into account.

To ensure that students receive experience in a range of conditions, the Open Water dives must include four conditions from the following, appropriate to the local conditions in which they will subsequently be diving:

- **shore dive** – dive commencing and ending on either a gently shelving shore or a deep water entry/exit
- **dive using a breathing gas mix** – 32% or 36% O<sub>2</sub>
- **low visibility dive** – dive in visibility in the range between 2 and 4 metres
- **drift dive** – dive in moving water in the speed range between 0.25 and 0.5kn
- **small boat dive** – dive from a boat of less than 8m overall length, where water entry is via a backward roll, and egress from the water requires removal of equipment in the water
- **large boat dive** – dive from a boat of greater than 8m overall length, where the water entered is via a stride entry, and egress from the water is accomplished via ladder without removal of any equipment except, possibly, fins
- **wall dive** – dive along a vertical or near

vertical wall with no solid bottom closer than 4m below the divers

- **dive in protective clothing** – dive wearing either a wet suit or dry suit

Only one of the above conditions may be logged per dive.

The Ocean Diver syllabus includes five Open Water lessons which should total a minimum of 120 mins. underwater time. Where conditions are suitable, the lessons may be condensed into four dives provided that no training elements are omitted and the total underwater time of 120 minutes is not reduced.

The maximum depth to be attained during the above dives will be in the range 15 - 20m. The actual depth achieved is to be annotated in the Students' Qualification Record Books.

## Experience Dives

When qualifying as an Ocean Diver, students only experience depths of less than 20m. Further post-qualification extension of their depth experience should be carried out when accompanied by a diver holding a minimum qualification of Dive Leader and all such dives should be performed under the supervision of a NQI.

## Adapting Lessons for Differing Conditions

### Sheltered Water

The Sheltered Water lesson contents have been based on the most common conditions of a swimming pool containing warm water. Divers do, however, learn to dive under a variety of Sheltered Water conditions which require different standards of protective clothing. Although the wearing of gloves will affect students' dexterity, and hoods impact the ease with which masks can be sealed and cleared, the impact of these will generally be one of increased time required.

How buoyancy control is achieved is however more variable and may require the techniques to be adapted. In general, the objective should be to keep the task of buoyancy control as simple as possible by using the minimum number of volumes of diving gas. In practical terms this means that where students wear no protective clothing or wear wet suits, buoyancy control is effected using the BC. Where dry suits are worn, buoyancy control is effected using the diving gas in the suit.

The objective of using the minimum number of volumes of gas is equally important for the Controlled Buoyant Lift (CBL), where there will be a need to control both the casualty's and the rescuer's own buoyancy. Dependent upon the type and location of the respective controls, buoyancy can be provided either by suit or BC inflation. Incident statistics show that failure to start a lift is the most common cause of unsuccessful rescue attempts. Emptying one volume of gas, in order to

lift using another, should not be encouraged.

Surface support in all cases should be by BC inflation.

A further impact for dry suited students is that the forward roll exercise in the lesson 'OS4, Beyond the Basics' becomes more than a just mobility exercise, as it is also the basis of the technique for recovering from an inversion.

## Open Water Lessons

The lesson notes assume the scenario of a student, having undergone Sheltered Water training in a swimming pool, progressing to Open Water diving where a dry suit is required. Where appropriate, guidance is included at the end of individual lesson notes on how to adapt the content of the lesson to account for other standards of protective clothing and water conditions.

## Performance Assessments and Standards

Ocean Diver training includes a number of assessments covering basic swimming competency, practical diving skills and underpinning knowledge.

### Swimming Assessment

A basic level of comfort in the water is essential for all divers. This is evaluated during a swimming assessment which comprises a 200m freestyle swim in basic swimwear only. Students should complete this assessment comfortably and with ease, speed is not one of the relevant criteria.

It should be recognised that some students will benefit from a period of swimming practice to build up their stamina, which may be undertaken in parallel with their Sheltered Water lessons. The swimming assessment must however, be satisfactorily completed before they progress to Open Water lessons and dives.

### Practical Assessments

By the end of the Ocean Diver course, students should be able to perform the key skills reliably and repeatedly. Sufficient repetition is therefore built into the syllabus to enable this to be achieved. This is an important element in developing the student's confidence in their own abilities to dive with another diver, independent of an instructor.

Different skills are however learned at different points during the training, some of which are pre-requisites for further skills to be learned later. For instance, competency at clearing a demand valve of water is a pre-requisite for progressing to AS use. For this reason the practical assessments are spread individually throughout both Sheltered and Open Water training, rather than grouped together at the end.

Because these assessments of key skills require that students are not only able to perform the skill satisfactorily, but also demonstrate an appropriate

level of confidence in doing so, they are identified in the relevant lesson objectives and notes by the use of the definition **competent and confident**. Where these words appear, students should have progressed sufficiently to be able to achieve the relevant performance standards without supervision. These performance standards are incorporated at the end of the relevant lesson's notes.

### **Theory Assessment**

The theory assessment can be undertaken any time after the completion of the classroom lessons but must be successfully completed before the final Open Water lesson. A pass mark of 80% must be achieved.

