

Combined Nitrox Diver / Advanced Nitrox Diver

AIM

- To Introduce BSAC Sports Divers to the meticulous dive planning and practical skills required when diving and decompressing using enriched Nitrox mixtures.
- To monitor time spent at different depths tracking different partial pressures of oxygen in order to avoid oxygen toxicity.
- To teach the safe use of up to EANx 50 as both a diving and decompression gas.
- To teach the safe use BSAC Nitrox Decompression Tables.
- To teach the safe use of Nitrox and Air Computers.

DURATION

Two days: Day 1 - Classroom studies, Day 2 - Two Open Water Dives

ENTRY GRADE

- BSAC Sports Diver or similar (see BSAC SALT table) + 20 additional dives
- Current evidence of Fitness to Dive

FACILITIES

- A suitable classroom for theory lessons, with enough space to spread Nitrox cylinders for practical analysing lessons.
- A suitable open water site for practical diving on Day Two.
- The following equipment will be required for the practical dives:
- 1 Nitrox cylinder per student (minimum 10 litre)
- 1 Pony cylinder (or doubles) per student
- 1 Delayed SMB per student
- Oxygen analysers.

Nitrox cylinders must conform to the BSAC recommendations: in test, in Oxygen Service and correctly labelled.

QUALIFICATION

Each part of the course concludes with an assessment, and only those who pass these assessments will receive the Advanced Nitrox Diver Certificate and qualification record book certificate.

SYLLABUS

Instructor briefing

Assemble, Introductions, Administration.

1. Classroom Lesson - **Introduction** - 20 mins Course aims
What is Nitrox?
History of Nitrox
Advantages and disadvantages of Nitrox as a diving and a decompression gas.
2. Classroom Lesson - **Pressure and Nitrox mixes** - 20 mins
Atmospheric and Absolute Pressure
Dalton's Law

- Calculating ppO₂
Maximum Operating Depth and Nitrox mix.
3. Classroom Lesson - **Nitrogen and Nitrox Diving** - 90 mins
BSAC Nitrox Decompression Tables
Nitrogen Narcosis
Decompression - good practice, equipment
Carbon Dioxide Toxicity.
Nitrox and Air Dive Computers
 4. Classroom Lesson - **Oxygen and Human Physiology** - 60 mins
Effects of Oxygen
CNS and Whole Body Toxicity
Monitoring Oxygen uptake
 5. Classroom Lesson - **Equipment for Nitrox diving** - 60 mins
Decompression equipment and configuration
Dive Cylinders
Regulators
Other diving equipment
Oxygen Service
 6. Classroom Lesson - **Nitrox Mixing and Analysing** - 45 mins
Ways to Mix / Blend Nitrox
Advantages, disadvantages
Practical Gas Analysing
 7. Classroom Lesson - **Dive Organisation & Management** - 60 mins
Dive Marshalling
Pairing divers
Decompression planning
Accident Management
Dive planning
 8. Classroom - **Theory Assessments** - 60 mins
 9. Classroom - **Open Forum** - 15 mins

Course debriefing - Disperse

Instructor De-brief