

ITDA NITROX DIVER COURSE

INTRODUCTION

This is the entry level certification course for recreational divers wishing to utilize Enriched Air Nitrox (EAN) as a breathing gas between the depths of 10 metres and 30 metres on no decompression stop dives.

COURSE OBJECTIVES

The objective of this course is to train divers in the benefits, hazards and proper procedures for using Nitrox mixes from 22% to 40% oxygen content.

QUALIFICATIONS OF GRADUATES

Upon successful completion of this course, graduates may engage in diving activities utilizing EAN₂₂ to EAN₄₀ without direct supervision. Upon successful completion of this course, graduates are qualified to enrol in:

1. ITDA Decompression Nitrox Course
2. ITDA Semi-Closed Circuit Rebreather Course

WHO MAY TEACH

This course may be taught by any active ITDA Nitrox Instructor or above.

STUDENT / INSTRUCTOR RATIO

1. CLASSROOM
Unlimited, so long as adequate facility, supplies and additional time are provided to ensure comprehensive and complete training.
2. OPEN WATER
A maximum of 4 students – Instructor on all open-water dives, a minimum of 2 open-water dives must be conducted to efficiently demonstrate the advantages of EAN in field use. These dives must be conducted in line with the HSE ACOPS

STUDENT PRE-REQUISITES

1. Minimum age 15
2. Minimum certification of open-water diver or equivalent
3. Minimum of 10 (ten) logged dives or the equivalent at the discretion of the instructor, or the ITDA Nitrox programme may be taught in conjunction with advanced diver certification i.e PADI, NAUI, SSI etc....

REQUIRED SUBJECT AREAS

The following topics must be covered during this course. The ITDA Nitrox Manual is mandatory during this course but instructors may use any additional text or materials that they feel help present these topics:

1. HISTORY OF EAN
2. PHYSIOLOGY
3. OXYGEN
4. NITROGEN
5. PHYSICS
6. PRESSURE REVIEW
7. PARTIAL PRESSURES
8. EQUIPMENT CONSIDERATIONS
9. 40% OXYGEN CONTENT AND LESS, INCORPORATING S.I.T.A GUIDELINES
10. DIVE TABLES
11. EQUIVALENT AIR DEPTH (introduction of concept only for demonstration)
12. EAN TABLES
13. SWITCHING MIXES ON REPETITIVE DIVES
14. DIVE COMPUTERS
15. MIX ADJUSTABLE
16. O₂ INTEGRATED
17. ADVANTAGES AND DISADVANTAGES OF EAN
18. USE AS AIR FOR PHYSIOLOGICAL ADVANTAGE WITH AIR TABLES OR COMPUTERS
19. USE TO EXTEND NO-DECOMPRESSION BOTTOM TIMES OR SHORTEN SURFACE INTERVALS
20. OXYGEN TOXICITY HAZARDS AND DEPTH LIMITS
21. DISCUSSION OF MYTHS AND FACTS REGARDING EAN MIXTURES
22. PROCEDURES
23. USE AND THEORY OF OXYGEN ANALYSER
24. GAS ANALYSIS AND LOGGING
25. COMMON MIXING PROCEDURES
26. PARTIAL PRESSURE BLENDING
27. CONTINUOUS BLENDING
28. MEMBRANE SEPARATION SYSTEM

GRADUATION REQUIREMENTS

In order to complete this course students must:

1. Satisfactorily complete the ITDA Nitrox Course written examination with a minimum mark of 80%
2. Demonstrate understanding of oxygen analysis for Nitrox mixtures
3. Carry out 2 EAN dives including gas analysis, dive planning and conduct the dives according to the dive plan

SUPPORT MATERIALS

1. ITDA Student Registration
2. ITDA Nitrox Student Manual
3. ITDA Nitrox Slides/Overheads/Power Point Presentation
4. ITDA EAD/PO₂ Table
5. ITDA EAN Tables