OCEAN ZONE DIVERS
Performance Under Pressure

TDI/SDI
NITROX

2 days

Costs include: **Gas, Boat Trip, Manual, Equipment**
Extra coasts: **Certification**

Introduction

This is the entry-level certification course for recreational divers wishing to utilize enriched air Nitrox (EAN) as a breathing gas. The objective of this course is to train divers in the benefits, hazards, and proper procedures for using Nitrox mixes from twenty two (22) to forty (40) percent oxygen content.

Qualifications of Graduates

Upon successful completion of this course:

1. Graduates may engage in diving activities utilizing EAN 22 to EAN 40 without direct supervision.

Graduates would be qualified to enroll in:

1. TDI Advanced Nitrox Course.
2. TDI Decompression Procedures Course.
3. TDI Semi-closed Rebreather Course.

Who May Teach

Who may teach this course:

1. Any active TDI Nitrox Instructor.

Student – Instructor Ratio

Academic:

1. Unlimited, so long as adequate facility, supplies and time are provided to insure comprehensive and complete training.

Confined Water (Swimming pool-like conditions):

1. N/A.

Open Water (Ocean, lake, quarry, spring, river or estuary):

1. Since entry level Nitrox is essentially an information and academic based course, no dives are specifically required as there are no skills to evaluate.
2. However, optional dives are desirable to effectively demonstrate the advantages of EAN use in practical field use. If scheduled, no direct instructor supervision is required but dives should not be conducted in environments that may exceed the existing skill or depth levels of the student.

Student Pre-Requisites

The student must:

1. Be a minimum age of fifteen (15).
2. Have a Minimum certification of Open Water Diver or current enrollment in an Open Water Diver course.

Course Structure and Duration

Open Water Execution:

1. Two (2) Nitrox dives are recommended but are not required.

Course Structure:

1. TDI allows instructors to structure courses according to the number of students participating and their skill level.

Duration:

1. The suggested number of classroom hours is three (3).

Administrative Requirements

The following is the administrative tasks:

1. Collect the course fees from all the students.
2. Ensure that the students have the required equipment.
3. Communicate the training schedule to the students.
4. Have the students complete the Liability Release and Medical history forms.
5. The Instructor should review the Liability Release and Medical Forms before starting on the course.

Upon successful completion of the course the Instructor must:

1. Complete the Student Registration Form and send the Registration Form to TDI HQ.
2. Award card and certificate.

Required Equipment

The following are required for this course:

1. TDI Nitrox Student Manual.
2. TDI Nitrox Slides / Overheads / Power Point Presentation.
3. TDI EAD / $P0_2$ Tables.

Required Subject Areas

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

1. History of Enriched Air Nitrox (EAN)
2. Physiology
   - A. Oxygen.
   - B. Nitrogen.
3. Physics
   - A. Pressure review.
   - B. Partial pressures.
4. Equipment Considerations
   - A. Forty (40) percent oxygen content and less.
   - B. Above forty (40) percent oxygen content.
5. Dive Tables
   - A. Equivalent Air Depth (introduction of concept only for demonstration).
   - B. EAN Tables.
   - C. Switching mixes on repetitive dives.
6. Dive Computers
   - A. Mix adjustable.
   - B. 0_2 integrated.
7. Advantages and Disadvantages of EAN
   - A. Use as air for physiological advantage with air tables or computers.
   - B. Use to extend no-decompression bottom times or shorten surface intervals.
   - C. Oxygen toxicity hazards and depth limits.
   - D. Discussion of myths and facts regarding EAN mixtures.
8. Procedures
   - A. Use and theory of oxygen analyzer.
   - B. Gas analysis and logging.
9. Common Mixing Procedures
   - A. Partial pressure blending.
   - B. Continuous blending.
   - C. Membrane separation system.

Required Skill Performance And Graduation Requirements

In order to complete this course, students must:

1. Satisfactorily complete the TDI Nitrox Course written examination.
2. Demonstrate understanding of oxygen analysis for Nitrox mixtures.