



## **4. TDI – Nitrox Instructor Course**

### **4.1 Introduction**

This is the entry level certification course for Instructors wishing to teach enriched air Nitrox (EAN) as a breathing gas. If open water dives are included, the maximum depth is not to exceed the skill level of the Instructor. The objectives of this course are to train Instructors in the benefits, hazards, and proper procedures for teaching EAN-22 to EAN-40.

### **4.2 Qualifications of Graduates**

Upon successful completion of this course, graduates may:

1. Engage in teaching activities utilizing EAN-22 to EAN-40.

Upon successful completion of this course, graduates are qualified to enroll in:

1. TDI Advanced Nitrox Instructor Course.
2. Decompression Procedures Instructor Course.

### **4.3 Who May Teach**

Who may teach this course:

1. This course may be taught by any active TDI Nitrox Instructor Trainer.

### **4.4 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. Open water dives are optional (without direct supervision of an Instructor Trainer).



## **4.5 Student Pre-Requisites**

The student must:

1. Be a minimum age of eighteen (18).
2. Have a minimum certification of Open Water Instructor.
3. Be certified as Basic Nitrox Diver (may be combined with instructor program).
4. Show proof of a minimum of ten (10) logged Nitrox dives.

## **4.6 Course Structure and Duration**

Open Water Execution:

1. Two (2) 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 and briefing hours six (6).

## **4.7 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 must 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.

## **4.8 Required Equipment**

The following are required for this course:

1. TDI Nitrox Instructor Manual.
2. TDI Standards and Procedures Instructor Manual.
3. TDI EAD Tables.
4. TDI Evaluation Forms.



## **4.9 Required Subject Areas**

The current TDI Standards and Procedures Instructor Manual and the TDI Nitrox Instructor Guide are mandatory for use during this course. The Instructor Trainers may use any additional text or materials that they feel help present these topics. The following topics must be covered during this course:

The following topic must be covered:

1. History of EAN
2. Physiology
  - A Oxygen.
  - B Nitrogen.
3. Physics
  - A Pressure review.
  - B Partial pressures.
4. Equipment Requirements
  - A Less than forty (40) %.
  - B Forty (40) % and above.
5. Dive Tables
  - A Equivalent Air Depth.
  - B EAN Tables.
  - C Switching mixes on repetitive dives.
6. Dive Computers
  - A Mix adjustable.
  - B O<sub>2</sub> integrated.
7. Advantages and Disadvantages of EAN
  - A Use as air for physiological advantage w/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 Analyzing and Logging.

## **4.10 Required Skill Performance and Graduation Requirements**

The following skills must be completed by the Instructor candidate:

1. Satisfactorily complete the TDI Nitrox written examination and be able to adequately explain each answer to a prospective student.
2. Demonstrate proficiency in analyzing oxygen / nitrogen mixtures.
3. Demonstrate proficiency in teaching the Nitrox Diver course.
4. Demonstrate proficiency in every skill required in the Nitrox Diver course.
5. One graded presentation on a Nitrox topic.