

Technical EANx Diver Course

OVERVIEW

- This course is to provide the EANx certified diver with the skills and knowledge needed to minimize the risks of utilizing optimal breathing gas EANx mixtures* of 28% through 100% (oxygen) for dives to a maximum training depth of 130 fsw (40msw) not requiring mandatory decompression.

QUALIFICATIONS OF GRADUATES

- Upon successful completion of this course, graduates are considered competent to utilize EANx mixtures 28% through 100% (oxygen) without direct supervision provided the diving activities and the areas dived approximate those of training.

PREREQUISITES FOR ENTERING THE COURSE

- Minimum age of 18.
- Minimum certification of NAUI EANx Diver and Deep Diver (or equivalent)
- Proof of 50 logged dives with 10 dives on EANx.

COURSE POLICIES

- Classroom hours- twelve estimated
- Open water dives- four
- Maximum training depths shall not exceed 130 fsw (40 msw) or PO₂ of 1.4 ATA.

EQUIPMENT

- NTEC Gear Configuration
- Oxygen analyzer (may be provided or rented for use during the course.)

SKILL REQUIREMENTS

- At least four dives are to be made using EANx, at least one of which is to be a repetitive dive. The students are to analyze their own breathing gas mixture and plan and correctly execute each dive. Dive planning shall include limits based on gas consumption, oxygen exposures and inert gas loading for each dive and breathing gas mixture. If simulated or actual planned decompression stops are intended because of a combined Technical EANx and Decompression Techniques Course on any dive, student divers must demonstrate use of an up line or lift bag and reel while performing simulated or actual stops. Student divers will participate in an emergency gas supply loss scenario at a depth not to exceed 60 fsw (18 msw), i.e., switch to separate redundant system and ascend to the surface. Students shall participate in a diver rescue simulation to include management of a diver experiencing oxygen toxicity.

ACADEMIC REQUIREMENTS

- **Applied Sciences.** This area is a review and continuation of the material covered in the NAUI Master Diver and EANx Diver Courses. Included are physics, physiology and medical aspects as applied to EANx diving with special emphasis on: advantages and limitations of high fractions of oxygen EANx mixtures, oxygen EANx mixtures, oxygen toxicity (whole body and central nervous system (CNS)otu's/uptd's), hypoxia, nitrogen narcosis, nitrogen perfusion and diffusion rates, tissue inert gas tension, inspired inert gas tension, equivalent narcosis depths (END), carbon dioxide toxicity, with remediation of

- specific subject knowledge as needed. Also to be covered are best mix and maximum operating depth mixture computations, plus common mixing procedures, including partial pressure, continuous blending, denitrogenation/membrane, plus contingency planning, chamber locations, evacuation procedures, communication and emergency breathing gases.
- **Diving Equipment.** This area reviews the NAUI Technical Equipment configuration (NTEC) as the preferred equipment configuration and divers' equipment requirements for gas mixes containing up to 100% oxygen content.
 - **Dive Tables.** This is to cover equivalent air depth calculations for any dive tables, including RGBM tables. Also to be covered are computer software generated RGBM tables or EANx RGBM computer. Also to be covered are dive planning requirements and limitations of gas supply, i.e., gas management planning, oxygen and nitrogen for a variety of dive scenarios.
 - **Decompression.** This is to cover the advantages/disadvantages of utilizing oxygen or EANx as decompression gas i.e., 39% to 100% oxygen for use as a decompression gas of multiple gas switches.