PADI Distinctive Specialty: Tec Basics

Course Overview

The PADI Tec Basics course is a bridge from recreational to technical diving. It exposes recreational divers to tec diving and entry level tec diving skills and equips them with the information they need to decide whether or not to accept the additional risk and commitment that PADI Tec courses demand. The PADI Tec Basics course runs within recreational limits, using segments from PADI Tec 40 Dives 1 and 2. The course allows PADI Tec Deep Instructors to have students practice fundamental tec skills before enrolling in the PADI Tec 40 program. The course also recognizes students who choose not to continue their technical training.

The PADI Tec Basics course clearly informs divers that the PADI TecRec program address technical diving apart from mainstream recreational diving. These two general diving modes are defined:
Recreational scuba diving is no stop diving with air or enriched air nitrox to a maximum depth of 40 metres/130 feet, and during penetration dives, within the natural light zone and no more than a total linear distance of 40 metres/130 feet from the surface. It is primarily open-circuit diving, but includes recreational eCCR and eSCR rebreathers (Type R).
Technical scuba diving is diving other than commercial or research diving that takes divers beyond recreational limits. It is further defined as and includes one or more of the following: diving beyond 40 metres/130 feet, required stage decompression, diving in an overhead environment beyond 40 linear metres/130 linear feet from the surface, accelerated decompression, and the use of variable gas mixtures (other than the automatic variation of a Type R rebreather) during a dive.
Technical diving uses extensive methodologies, technologies and training to manage added risks associated with it. Typically, this means using complex or highly specialized equipment in situations where direct access to the surface is inaccessible due to a ceiling imposed by decompression or by a physical barrier such as found inside cave or wreck diving environments.
Divers usually tec dive for the challenge and fun rather than as a profession, so it is a recreation (hence the name "TecRec" for these programs). However, to avoid confusion regarding the limits and scopes, tec diving is not called "recreational diving." The courses in the PADI TecRec program directly address the more demanding and challenging nature of technical diving, which involves more hazards and inherent risks than recreational diving. All the TecRec CCR courses are built upon mainstream instructional system design principles for which PADI courses are known.

Technical diving is not for everyone. It should not be presented as a goal for all divers to aspire to. Rather, it is for a growing but smaller segment of divers who are looking for challenge, and who are willing to accept the costs, risks, time commitment, training and physical fitness requirements necessary. In the face of these, it may be perfectly appropriate to remind those who may not be suited to TecRec that they can enjoy a lifetime of novel adventures without ever leaving recreational limits.

Minimum Instructor Requirements

PADI Tec Instructor. If the program is conducted in sidemount configuration, the instructor teaching the program must hold a suitable sidemount instructor certification.

Application Procedures

A teaching status PADI Tec Instructor can forward a PADI Specialty Instructor Application to the local area office for processing.

Diver Prerequisites

1. **PADI Advanced Open Water Diver or qualifying certification.** *PADI Rescue Diver is recommended.*

Student Equipment Requirements

1. **Twin cylinders with dual manifold and isolator or independent cylinders in a sidemount configuration**
2. **Primary and secondary regulators – primary regulator must have seven foot/two meter hose for air sharing.**
3. **SPG. In sidemount configuration both regulators must have SPGs.**
4. **Harness with shoulder and hip D-rings** (backmount or sidemount).
5. **BCD – wings**
6. **Stage/deco cylinder with attachment hardware, a single second stage regulator, and SPG.** Note: It is recommended that each diver have and use individual stage/deco cylinders. However, it is acceptable for students to practice required skills with a shared cylinder. **All cylinders must be filled with air only, *simulating* higher oxygen content as needed for skill development.**
7. **Dive computer**
8. **Appropriate exposure suit**
9. Weight System, if required to offset buoyancy created by equipment and exposure protection.
10. **Reel or spool**
11. **Knife/cutting device**
12. **Slate**
13. **Compass**
14. **Lift bag or DSMB**

Required Student Materials

PADI Tec Deep Diver Manual
Tec 40 Knowledge Reviews 1 and 2
Tec 40 Handouts 1 through to 5

Instructor/Course Equipment

1. **Emergency oxygen system**
2. **First aid kit**

Instructor Required Materials

All materials as outlined in the PADI Tec Diver Course Instructor Guide
(Section Two: Tec Diver Course Standards – Instructor Materials)

Student to Instructor Ratio

6:1. Two additional students may be added with one certified assistant. The certified assistant must meet the following requirements:

1. **Be a renewed PADI Divemaster or higher**
2. **Be a PADI Enriched Air Diver**
3. **Be a TecRec Tec 40 Diver or higher**
4. **Have made at least 10 decompression dives to 40 metres/130 feet or deeper not including training dives made for certification in the Tec Diver course.**
5. **A certified assistant is qualified to assist with and count toward supervisory ratios during open water training dives within the assistant's diver level certification limits.**

Minimum Age

15 years of age

Maximum Depth

30 metres/100 feet

Dives

Confined Water – 2 dives
Open Water – 2 dives

Knowledge Development

Student must complete Tec 40 Knowledge Development One and Two as outlined in the PADI Tec Diver Course Instructor Guide including Knowledge Reviews for each section. This may be done as prestudy. It is recommended that instructors hold one classroom session to review missed questions on Knowledge Reviews and answer any other questions students have.

Practical Applications

Instructors conduct Practical Application One as outlined in the PADI Tec Diver Course Instructor Guide. Practical Application Two must be conducted prior to Training Dive Two in confined water.

Confined Water

Conduct the Tec 40 dive skills outlined in the PADI Tec Diver Course Instructor Guide in two dives as shown below. Have students calculate a turn pressure based on thirds and write it on their slate. Have students use the Equipment Check List slate. It is recommended students also list the skills for each dive on their slate.

Training Dive One (without stage/deco cylinder)

1. **Working in a team, assemble and inspect the basic technical diving rig following the previously described rigging philosophy and to meet individual/environmental needs.**
2. **Demonstrate the proper weight required for the dive.**
3. **Demonstrate neutral buoyancy while wearing the basic technical dive rig underwater in water too deep in which to stand by hovering for 1 minute without sculling or kicking.**
4. **Within 30 seconds, independently close the cylinder valve to a regulator that is experiencing a simulated free flow.**
5. **Assist a team mate by closing the correct valve to a regulator that is experiencing a simulated free flow.**
6. **Within 30 seconds, independently close the isolator valve in response to a simulated manifold leak. This skill is not required if using sidemount configuration.**
7. **Respond to a simulated out of gas emergency by signalling a team mate, switching to the teammate's long hose second stage, then swimming 30 metres/100 feet using the long hose regulator and maintaining contact with the team mate.**
8. **Respond to a teammate's simulated out of gas emergency by, on signal, providing the teammate with the long hose second stage, switching to the short hose secondary, then swimming 30 metres/100 feet as the teammate uses the long hose regulator, maintaining contact.**

Training Dive Two (with one stage/deco cylinder)

1. **Working in a team, plan the dive following the A Good Diver's Main Objective Is To Live procedure, and perform predive checks following the Being Wary Reduces All Failures procedure.**
2. **Working in a team, perform a bubble check, descent check and S-drill.**
3. **Independently don, remove and re-don a stage/deco cylinder on the bottom.**
4. **Perform gas switches to stage/deco cylinders correctly following the NO TOX procedure.**
5. **Shut down both manifold valves and the isolator valve, and switch second stages to maintain a breathing supply, beginning with any valve chosen by the instructor, within 60 seconds (or within 40 seconds if there is no isolator valve).**
6. **Deploy a lift bag or DSMB from the bottom in water too deep in which to stand.**
7. **Swim at a steady pace at a constant depth for sufficient time to determine the SAC rate.**
8. **Using only neutral buoyancy, maintain a simulated decompression stop for eight minutes.**
9. **Remove and replace stage/deco cylinder at the surface in water too deep in which to stand.**

Open Water

Repeat the above skills from Tec Basics Training Dive One and Two in open water applying the skills to the open water environment. Conduct the skills as outlined above and as described in the Tec 40 Diver section of the PADI Tec Diver Course Instructor Guide. Have students calculate a turn pressure based on thirds and write it on their slate. It is recommended students also list the skills for each dive on their slate.

Course Credit

Since the PADI Tec Basics Distinctive Specialty is actually a portion of the PADI Tec 40 course, Tec Basics may credit toward this certification. Tec Basics divers should be informed that if they choose to move up to PADI Tec 40, their instructor may request a repeat of some confined water sessions and practical application sessions, depending on the interval between Tec Basics certification and the start of the PADI Tec 40 course. **Tec 40 Training Dive One, Practical Applications One and Two and Knowledge Development One and Two may be credited towards the PADI Tec 40 Diver if all performance requirements have been met. Credit towards Tec 40 Diver is valid for 12 months from the completion of the Tec Basics Distinctive Specialty.**

Paperwork

Students should sign the Liability Release and Express Assumption of Risk for Technical Diving, the Tec Diver Statement of Understanding and Learning Agreement and complete the standard RSTC Medical form. Students may participate in the Tec Basics Distinctive Specialty if they answer "no" to all the medical history questions on a completed Medical Statement. All enrolled Tec 40 students must have a physician's approval and signature on the Medical Statement.