24. Solo Diver

24.1 Introduction

The objective of this course is to train divers in the benefits, hazards, and proper procedures for diving solo. Upon successful completion of this course, graduates may engage in solo diving activities.

24.2 Who May Teach

An active SDI Solo Diver Instructor that has been certified to teach this specialty.

To qualify to teach the Solo Diver Program the instructor must:

1. Be minimum age 21
2. Have minimum 1 year teaching experience
3. Have certified 50 or more students at diver-level
4. Show verification of completing the SDI Solo Diver program within the past 24 months either by completing the eLearning course (if available in their language/region) or the diver course with a qualified instructor using printed materials.
5. This rating may be obtained by administrative upgrade, or by completing a course with an SDI Solo Diver Instructor Trainer but the prerequisites remain the same either way

24.3 Student to Instructor Ratio

Academic

1. Unlimited, so long as adequate facility, supplies and time are provided to ensure comprehensive and complete training of subject matter

Confined Water (swimming pool-like conditions)

1. N/A

Open Water (ocean, lake, quarry, spring, river or estuary)

1. A maximum of 8 students per instructor; it is the instructor's discretion to reduce this number as conditions dictate

24.4 Student Prerequisites

1. Minimum age 21
2. SDI Advanced Diver or equivalent
3. Provide proof of 100 logged dives

24.5 Course Structure and Duration

Open Water Execution

1. Two dives are required with complete briefs and debriefs by the instructor
2. Dive plan must include surface interval, maximum no-decompression time, etc. to be figured out and logged

Course Structure

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

24.6 Administrative Requirements

Administrative Tasks:

1. Collect the course fees from all the students
2. Ensure that the students have the required equipment
3. Communicate the schedule to the students
4. Have the students complete the:
    a. *SDI Solo Diver Liability Release and Express Assumption of Risk Agreement* Form
    b. *SDI Medical Statement Form*

Upon successful completion of this specialty the instructor must:

1. Issue the appropriate SDI certification by submitting the *SDI Diver Registration* Form to SDI Headquarters or registering the students online through member's area of the SDI website

24.7 Training Material

Required material:

1. *SDI Solo Diver* Student Manual and I.Q. Review or eLearning
2. *SDI Solo Diver* Instructor Guide

Optional material:

1. *SDI Solo Diver* planning slate

24.8 Required Equipment

1. Basic open water scuba equipment as described in section three of this manual with exception of a safe second, or octopus, is not allowed as a redundant air source.
2. One of the following must be used to provide an additional independent regulator attached to an air source: pony cylinder, twin cylinders with isolation, H-valve, independent doubles, or SpareAir™

24.9 Approved Outline

Instructors may use any additional text or materials that they feel help present these topics. The following topics must be covered:

1. Why We Must Solo Dive
    a. History of buddy diving
    b. Pros and cons of buddy diving
    c. Pros and cons of solo diving
    d. Legal liability assumed by buddy diving
    e. How to use the solo diving waiver
2. Who Must Solo Dive
    a. Prerequisites and practicalities
3. Solo Diving Mentality
    a. Self-reliance
    b. Self-rescue
4. When Not to Solo Dive
    a. Overhead environments
    b. Decompression and deep diving
5. Equipment for Solo Diving
    a. Redundant air sources: pony cylinder, twin cylinders with isolation, independent doubles, SpareAir™
    b. Regulators
    c. Buoyancy compensator devices (BCD)
    d. Exposure suits
    e. Dive knives and other cutting tools
    f. Surface marker buoys and floatation devices
    g. Safety reels
    h. Underwater navigational tools
    i. Current and ascent lines
    j. Surface audible signaling devices

   k. Dye markers, signal mirrors or flares
   l. Emergency position indicating radio beacons (EPIRBs)
   m. Equipment configuration appropriate for solo diving; stream lining equipment
6. Planning and Conducting a Solo Dive
   a. Dive site selection and pre-dive considerations
   b. Filing notification of planned dive activities
   c. Contingency planning
   d. Equipment configuration appropriate for solo diving
   e. Gas management
   f. Avoiding entanglements
7. Navigation
   a. Why navigation skills are important to the solo diver
   b. Use of a mechanical compass
   c. Electronic compass
   d. Underwater diver tracking systems
8. Management of Solo Diving Emergencies
   a. Free-flowing regulators
   b. BCD inflator malfunctions
   c. Mask problems
   d. Managing currents
   e. Entanglements
   f. Unintended decompression obligations
   g. Panic and stress management techniques
   h. Use of surface marker buoys and location devices
9. Review the *SDI Solo Diver Liability Release and Express Assumption of Risk Agreement* Form
   a. How students use the *SDI Solo Diver Liability Release and Express Assumption of Risk Agreement* Form
      i. During training
      ii. Post training at dive locations

24.10 Required Skill Performance and Graduation Requirements

Skills are to be performed in open water.

The student is required to demonstrate understanding of the techniques to properly execute a solo dive.

Swimming skills

1. 200 metres / 600 feet surface swim in full scuba equipment, configured for local diving conditions; must be non-stop and performed in an open water environment

Scuba skills

1. Demonstrate adequate pre-dive planning
2. Limits based on personal gas consumption
3. Exact dive and/or no-decompression profile
4. Properly execute the planned dive within all predetermined limits
5. Equipment configuration appropriate for solo diving
    a. Streamlining equipment
    b. How to use and carry a redundant air supply
6. Proper descent / ascent rates
7. Proper safety stop procedures
8. Monitoring of decompression status equipment; tables, computers, equipment
9. Navigation skills
10. Demonstrate proficiency of navigation with compass
11. Demonstrate emergency change over to a backup regulator or bailout scuba at a depth not exceeding 30 metres / 100 feet
12. Deploy surface marker and use of surface audible signaling device