

14. Dry Suit Diver

14.1 Introduction

This course allows the student to develop knowledge and skills to properly use a dry suit. It will discuss the types of dry suits, accessories, maintenance and how to make basic repairs.

14.2 Who May Teach

An active SDI Instructor that has been certified to teach this specialty. Proof of certification at the diver level is required to upgrade administratively or to take a specialty instructor course for this specialty.

14.3 Student to Instructor Ratio

Academic:

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

Pool/Confined Water (swimming pool-like conditions):

1. A maximum of 6 students per instructor.

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

2. A maximum of 4 students per instructor; it is the instructor's discretion to reduce this number as conditions dictate.
3. The instructor has the option of adding 2 more students with the assistance of an active Assistant Instructor or Divemaster.
4. The total number of students an instructor may have in the water is 8 with the assistance of 2 active Assistant Instructors or Divemasters.

14.4 Student Prerequisites

1. SDI Open Water Scuba Diver, SDI Junior Open Water Scuba Diver, or equivalent.
2. Minimum age 18, 12 with parental consent.

14.5 Course Structure and Duration

Pool/Confined Water/Shallow Open Water:

1. A single required session in pool, confined water or shallow open water to cover weighting, buoyancy control, ascents/descents, and emergency procedures must be completed prior to open water dives.

Open Water Execution:

1. Two dives are required with complete briefs and debriefs by the instructor.
2. The 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.

14.6 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 Liability Release and Express Assumption of Risk* Form
 - b. *SDI Medical Statement* Form.

Upon successful completion of the course 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.

14.7 Training Material

Required Material:

1. *SDI Dry Suit* Student Manual and Knowledge Quest or eLearning.
2. *SDI Dry Suit* Digital Instructor Resource.

14.8 Required Equipment

1. Basic open water scuba equipment as described in section three of this manual.

2. Dry suit with inflator hose.

14.9 *Approved Outline*

Instructors may use any additional text or materials that they feel help present these topics.

The following topics must be covered.

1. Types of Dry Suits:
 - a. Shell style.
 - b. Crushed neoprene.
 - c. Neoprene.
2. Types of seals:
 - a. Latex.
 - b. Neoprene.
3. Features:
 - a. Self-don.
 - b. Rear entry.
 - c. Boots.
 - d. Zipper guard; protect waterproof zipper from chaffing.
 - e. Warm neck collar.
 - f. Suspenders.
4. Dive Wear Insulation:
 - a. Cut to be close to skin.
 - b. Compression-resistant.
 - c. Dive wear is primarily made of polyester fibers or polypropylene.
5. Dry Suit Valves:
 - a. Inflator:
 - i. Push to inflate.
 - ii. To maintain the air space created by the dry suit.
 - b. Deflator:
 - i. Push to dump an adjustable.
 - ii. Simple open and close system.
6. Buoyancy Control:

- a. Proper weighting:
 - i. Cylinders and weights.
 - ii. Weight integrated buoyancy compensator device (BCD).
 - iii. Harness system.
 - b. Maintaining neutral buoyancy underwater.
 - c. Dry suit is not a substitute for a proper BCD.
7. Maintenance and Care:
- a. Flush with fresh water.
 - b. Dry inside first.
 - c. Avoid heat, chemicals and oils.
 - d. Zipper care:
 - i. Clean inside and out (toothbrush).
 - ii. Use only paraffin wax, never silicon spray.
 - e. Minor Repairs:
 - i. Repair from inside out.
 - ii. 50/50 mix Cotel-240 and Aquaseal.
 - f. The use of water-soluble lubricants inside wrist seals to ease wear and tear on wrist seals while donning the suit.
8. Dry Suit Emergencies:
- a. Excessive air in suit.
 - b. Inflator valve stuck open or leaking air.
 - c. The exhaust valve stuck closed.
 - d. Accidentally dropped weight.
 - e. Excessive air in Feet.
 - f. Dry suit flooded.

14.10 Required Skill Performance and Graduation Requirements

Students are required to successfully complete the following:

- 1. Pool Session 1:
 - a. Plan dive.
 - b. Proper donning of dry suit.

- c. Review functions and features of dry suit.
- d. Enter water.
- e. Buoyancy check.
- f. Get comfortable.
- g. Descend.
- h. Practice dry suit skills.
- i. Inflating and deflating suit.
- j. Roll from inverted position.
- k. Buoyancy skills/hovering.
- l. Ascend and exit.

Students are required to successfully complete the following in open water:

1. Open Water Dive 1:
 - a. SDI recommends that the first dive be no deeper than 6 Metres/20 Feet.
 - b. Plan dive.
 - c. Proper donning of dry suit.
 - d. Review functions and features of dry suit.
 - e. Enter water from a boat or shore.
 - f. Buoyancy check
 - g. Get comfortable.
 - h. Descend.
 - i. Practice dry suit skills.
 - j. Inflating and deflating suit.
 - k. Roll from inverted position.
 - l. Ascent with safety stop.
 - m. Ascend and exit.
 - n. Log dive.
2. Open Water Dive 2:
 - a. Plan dive.
 - b. Enter and descend.
 - c. Practice dry suit skills.

- d. Inflating and deflating suit.
- e. Roll from inverted position.
- f. Emergency procedures for a dry suit malfunction.
- g. Ascend with safety stop.
- h. Exit, log dive.