

## 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 CotoI-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 the back of a boat or shore entry.
- 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.