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## 13. Dry Suit Diver

### 13.1 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.

### 13.2 Who May Teach

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

### 13.3 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. A maximum of 6 students per active instructor

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

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

### 13.4 Student Prerequisites

1. SDI Open Water Scuba Diver or equivalent, or current enrollment in one of those courses
2. Minimum age 18, 12 with parental consent

### 13.5 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



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## 13.6 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 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

## 13.7 Training Material

### Required Material:

1. *SDI Dry Suit* Student Manual
2. *SDI Dry Suit* Knowledge Quest
3. *SDI Dry Suit* Instructor Guide

## 13.8 Required Equipment

1. Basic open water scuba equipment as described in section three of this manual
2. Dry suit with inflator hose

## 13.9 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 Repairing
    - 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. Exhaust valve stuck closed
  - d. Accidentally dropped weights
  - e. Excessive air in feet
  - f. Dry suit flooded



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## 13.10 Required Skill Performance and Graduation Requirements

Confined water training is not required but highly recommended. It would consist of:

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 back of 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