12. Diver Propulsion Vehicle (DPV)

12.1 Introduction

This course is designed to train divers in the use of a diver propulsion vehicle (DPV) and familiarizes them with the skills, knowledge, planning, organization, procedures, techniques, problems, and hazards of using a DPV in a non-overhead environment.

12.2 Who May Teach

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

12.3 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 2 students per instructor; it is the instructor's discretion to reduce this number as conditions dictate

12.4 Student Prerequisites

1. SDI Open Water Scuba Diver or equivalent
2. Minimum age 18, 15 with parental consent

12.5 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

12.6 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

12.7 Required Equipment

1. Basic open water scuba equipment as described in section three of this manual
2. Diver Propulsion Vehicle

12.8 Approved Outline

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

1. Physics
    a. Pressure review
    b. Review of air embolisms and decompression theory
    c. Review of ascents/descents with regards to pressure changes
    d. Review dive tables and computers
    e. Diver propulsion vehicle (DPV) considerations
2. Advantages of Using a Diver Propulsion Vehicle (DPV)
    a. Features to consider when choosing a DPV
    b. Types of DPVs
    c. Accessories
3. Overview of DPVs Used for This Course
    a. Maximizing battery life
    b. Battery safety tips
    c. Maintenance; storing and transporting
    d. Dive planning and safety considerations

   e. Air consumption and decompression
   f. Battery endurance
   g. Determining the turn-around time point
4. Safety Considerations
   a. Vehicle failure
   b. Depth and descent/ascent considerations
   c. Avoiding propeller entanglements and obstructions
5. Using the Buddy System
6. Diver Propulsion Vehicle (DPV) Use
   a. Pre-dive preparation
   b. Water entries
   c. DPV use at the surface
   d. Riding tandem
   e. Orientation and descent procedures
   f. Ascent and exit procedures
   g. Post dive maintenance

12.9 Required Skill Performance and Graduation Requirements

Students are required to successfully complete the following:

1. Open Water Dive 1
   a. Dive plan
   b. Proper entry
   c. Surface use of DPV
   d. Descent with DPV
   e. Monitor DPV and air consumption
   f. Ascent and exit
   g. Log dive
2. Open Water Dive 2
   a. Dive plan
   b. Entry and descent
   c. Underwater tour
   d. Ascent and exit
   e. Log dive