4. Diver Propulsion Vehicle (DPV) Freediver

4.1 Introduction

This course is designed to train freedivers 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. Students under the age of 18 are issued a Junior DPV Freediver and are required to freedive under the supervision of a parent or guardian. DPV Freedivers are not certified to dive deeper than their current freediver level certification.

4.2 Who May Teach

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

4.3 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

4.4 Student Prerequisites

1. PFI Freediver or equivalent
2. Minimum age 18, 16 with parent or guardian present

4.5 Course Structure and Duration

Open Water Execution

1. Two dive sessions are required with complete briefs and debriefs by the instructor
2. Freedive plan must include surface interval calculations, direct supervision, etc. to be figured out and logged

Course Structure

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

4.6 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. *PFI General Liability Release and Express Assumption of Risk* Form
    b. *PFI Medical History* Form

Upon successful completion of this specialty the instructor must:

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

4.7 Required Equipment

1. Basic freediver equipment as described in section three of this manual
2. Diver Propulsion Vehicle
3. Harness for DPV

4.8 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 hypoxia, thoracic squeezes, and decompression theory
    c. Review of ascents/descents with regards to pressure changes
    d. Review surface interval calculations
    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. Freedive planning and safety considerations
    e. Hypoxia 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
    d. Never going farther than you can return without the DPV
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

4.9 Required Skill Performance and Graduation Requirements

Students are required to successfully complete the following:

1. Open Water Freedive Session 1
    a. Freedive plan
    b. Proper entry
    c. Surface use of DPV
    d. Descent with DPV
    e. Monitor DPV and buddy
    f. Ascent and exit
    g. Care of equipment
    h. Log freedives
2. Open Water Freedive Session 2
    a. Freedive plan
    b. Entry and descent
    c. Underwater tour
    d. Ascent and exit
    e. Care of equipment
    f. Log freedives