
Open Water SCUBA Diving

An entry-level course with certification through the National Association of SCUBA Educators, NASE. The student will receive training in the fundamentals of SCUBA diving including proper buoyancy, basic diving physics and physiology, equipment use and maintenance, decompression theory, and basic diving first aid.

Instructor: Capt. Michael Gast, Lt. Joel Talley

Course Length: 1 week, 30 hours

Prerequisites: Students must demonstrate ability to tread water, unaided, for 10 minutes and to swim a distance of 200 yards unassisted and unaided by a flotation device. The swim is not timed, however, standing in shallow water or resting is not permitted. The student must be at least 15 years of age.

Required Texts: *Open Water Diver*, Darwin Rice, et al, Scuba Science and Technology inc., 1999
Gas law supplement, From the PADI Encyclopedia of Recreational Diving, 1993

Required Tools/Materials: Each student will provide his own mask, fins, snorkel, dive boots, gear bag, underwater watch, dive knife, compass, and wetsuit. Each student will be provided with a buoyancy compensator device, and regulator.

Instructional Methods: Lesson material will be imparted via lectures, videos and photographs, demonstrations, and reading assignments. Students will practice skills during supervised confined water and open water dive sessions.

Method of Evaluation: Student progress will be based on homework assignments, practical skills, quizzes, and written exams. The final exam will constitute the course grade.

Pass Requirements: Completion of all assignments, quizzes, and the final exam, and successful demonstration of all required skills.

Course Components:

Hours	Subjects (NASE ref. number)
1.5	SCUBA Equipment (1.3, 2.2) Explanation in usage of mask, fins, snorkel, weighting systems, compressed air cylinders, tank valves, SCUBA regulators, Submersible Pressure Gauges, Depth Gauges, and Buoyancy Compensators, buddy teams, exposure suits, auxiliary equipment
2	Physics and Physiology of Diving (1.1, 1.2) Explanation of buoyancy, effects of pressure on air spaces, effects of water on light, effects of water on sound, air spaces in the body, air density effects, perception of sound in water, thermal effects/heat loss, effects of nitrogen under pressure,
1	The Underwater World (2.1) Water temperature, bottom composition, visibility, currents, aquatic life, ocean diving
2.5	Confined Water Session 1 (OW 135) Equipment assembly, 200 yard swim, 10 minute water tread, mask, fins, and snorkel adjustment, mask defogging, donning gear, underwater communications, BCD inflation/deflation, intro to underwater breathing, regulator recovery, regulator purging, mask clearing, fin use, cramp removal, intro to air space equalization, deep water ascents/descents, skill practice, equipment disassembly
2.5	Confined Water Session 2 (OW 139) Equipment assembly, pre-dive safety check, deep water entry, snorkel clearing, snorkel/regulator exchange, snorkel swim with full gear, tired diver tow, remove and replace mask, no mask breathing, skill practice, deep water exit, equipment disassembly
1.5	Dive Planning (3.1) Advance, equipment, and pre-dive preparation, problem recognition and control, problem management concepts, overexertion, out of air emergencies, first aid for diving, finding your way around underwater

Hours	Subjects
2	Computer Diving, Log books, and Dive Flags (4.1, 4.2, 4.3) Advantages of boat diving, pre-dive preparation, diving procedures, equipment management, Introduction to dive computers, rules for computer diving, dive tables, purpose of log books, logging your dives, two types of dive flags, use of the dive flag and float, laws and regulations, safety considerations
1.5	Boat Diving, Diving and your health (4.4) Physical considerations, women and diving
3	Confined Water Session 3 (OW 143) Equipment assembly, pre-dive safety check, proper weighting, no mask swim, neutral buoyancy, alternate air source, free flowing regulator, controlled emergency swimming ascent, skill practice, equipment disassembly
2	Confined Water Session 4 (OW 147) Equipment assembly, in water gear donning, hovering, doffing and donning gear on bottom, doffing and donning gear on surface, skill practice, deep water exit, equipment disassembly
1	Final Exam Open Water Diver final exam
2	Open Water Dive 1 (OW 155) Equipment preparation, briefing, safety check, water entry, proper weighting, controlled descent with a reference, mask clearing, regulator recovery, buoyancy, discovery tour, water exit, debriefing, log dive
2	Open Water Dive 2 (OW 157) Briefing, safety check, water entry, tired diver tow, controlled descent, mask clear, buoyancy, alternate air source ascent, tired diver tow, discovery tour, water exit, debriefing, log dive
2	Open Water Dive 3 (OW 159) Equipment preparation, briefing, safety check, water entry, compass swim at the surface, snorkel/regulator exchange, descent, mask removal and replacement, buoyancy, controlled ESA, discovery tour, debriefing, log dive
2	Open Water Dive 4 (OW 163) Briefing, safety check, water entry, free descent, mask clear review, buoyancy, discovery tour, water exit, debriefing, log dive
1.5	Graduation Ceremony Presentation of certification cards, graduation meal

Revised 4/21/2008