



Australian Government

Department of Education, Employment and Workplace Relations

SISOSCB303A Complete deep dives to between 18 and 40 metres

Release: 2

SISOSCB303A Complete deep dives to between 18 and 40 metres

Modification History

Not Applicable

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to plan and perform deep dives to between 18 and 40 metres, taking into account hazards and potential deep diving risks.

Application of the Unit

This unit applies to current or aspiring dive guides or instructors working in controlled open water dive environments to a maximum depth of 40 metres.

This may include those working for private dive schools or companies operating at coastal sites or through holiday resorts.

Licensing/Regulatory Information

No licensing, regulatory or certification requirements apply to this unit at the time of endorsement.

Pre-Requisites

SISOSCB301A SCUBA dive in open water to a maximum depth of 18 metres

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the Evidence Guide.

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| 1. Plan for a deep dive. | <p>1.1. Prepare <i>deep diving plans</i> and ensure physiological and psychological well being according to <i>industry technical and safety criteria, relevant legislation and organisational policies and procedures</i>.</p> <p>1.2. Access information on the dive site and identify potential <i>hazards</i> and <i>physics and physiology</i> associated with the deep dive and implement procedures to minimise <i>risks</i>.</p> <p>1.3. Identify symptoms, prevention and treatment for potential deep diving risks, according to industry technical and safety criteria.</p> <p>1.4. Access <i>relevant sources</i> to interpret detailed <i>weather and environmental information</i> to determine dive plan.</p> <p>1.5. Establish a communication system to use with buddy and other participants while deep diving.</p> |
| 2. Select and use deep dive equipment. | <p>2.1. Select <i>deep dive equipment</i> according to <i>diver's needs and characteristics</i>.</p> <p>2.2. Assess equipment for safety and suitability and adjust and fit to ensure personal comfort.</p> <p>2.3. Use and maintain dive equipment according to industry technical and safety criteria, relevant legislation and organisational policies and procedures.</p> <p>2.4. Calculate no-decompression times according to industry technical and safety criteria.</p> |
| 3. Perform deep dives. | <p>3.1. Demonstrate controlled descents and ascents using reference as a tactile and or visual guide.</p> <p>3.2. Participate in exercises at depth to demonstrate impairment effects of nitrogen narcosis, pressure changes and colour absorption.</p> <p>3.3. Negotiate deep dive hazards and risks and perform</p> |

ELEMENT**PERFORMANCE CRITERIA**

- safe dive according to dive plan and industry technical and safety criteria.
- 3.4. Undertake a 3 minute safety stop at 5 metres on ascents and ensure ascent rate does not exceed 18 metres per minute.
4. Evaluate deep dives.
- 4.1. Evaluate *relevant aspects* of the deep dive.
- 4.2. Identify improvements for future deep diving experiences.

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

- communication skills to inform progress and interact with buddy via underwater hand signals
- teamwork skills to:
 - check, assemble and fit buddy's dive equipment
 - negotiate maximum time and depth limits
 - deep dive with and look out for buddy
- problem-solving skills to:
 - determine time, depth and air supply limits
 - navigate underwater
 - adapt to changing weather and sea conditions
- self and buddy rescue, first aid and emergency response skills appropriate to the site to enable initial response to emergencies and personal health care.

Required knowledge

- legislation, organisational policies and procedures and industry technical and safety criteria to enable safe conduct of all deep water SCUBA diving activities
- minimal impact interactions and techniques to minimise negative impact on aquatic animal and plant life
- selection, use and maintenance of SCUBA equipment, characteristics and technology, the advantages and disadvantages of the range of equipment, and factors affecting appropriate selection of equipment
- weather and environmental information to interpret forecast conditions and their effect on the diving activity
- sea features such as currents, waves and tides and how these might impact on the dive
- factors affecting buoyancy and how to control sinking and floating
- no-decompression dive tables to determine air requirements
- physics, physiology, hazards and risks commonly associated with deep diving to a depth of 40 metres and signs, symptoms, prevention and treatment of common deep diving risks, such as decompression illness to enable safe performance
- navigation techniques to avoid getting lost under water
- underwater communication systems such as signs and signals used to communicate with buddy
- emergency, first aid and rescue procedures appropriate to the location to ensure risk minimisation to self and group.

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of the following is essential:

- applies relevant process to select, maintain and fit dive equipment and calculates maximum dive time and depth using a no-decompression table
- demonstrates safe deep diving techniques according to industry technical and safety criteria, relevant legislation and organisational policies and procedures
- identifies symptoms, prevention and treatment for potential deep diving risks, negotiates hazards, and minimises negative impact on aquatic animal and plant life throughout dive
- communicates with and monitors buddy's progress and physiological and psychological well being throughout the deep dive
- evaluates and reflects on deep diving performance to identify strengths, weaknesses and areas that need improvement.

Context of and specific resources for assessment

Assessment must ensure participation in multiple SCUBA deep diving activities to demonstrate competency and consistency of performance.

Assessment must also ensure access to:

- resources and information, to plan and select appropriate equipment for the deep diving activity
- a suitable open water deep diving site
- a suitable buddy to participate in deep dive process
- a suitable diving boat, if required
- SCUBA, navigation, communication and safety equipment.

Method of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:

- oral or written questioning to assess knowledge of deep diving techniques, hazards and risks
- observation of safe participation and communication with buddy throughout deep diving process
- written and or verbal self evaluation

- third-party reports from a supervisor detailing performance.

Assessment with other units relevant to the industry sector, workplace and job role is recommended,

for example:

- SISOSCB309A Complete dives off boats.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

- Deep diving plan*** may include:
- objectives
 - date, time and duration of dive
 - site and equipment
 - suitable buddy
 - time, depth and air supply limits
 - safety and emergency procedures.
- Industry technical and safety criteria*** may include:
- British Sub-Aqua Club (BSAC)
 - Professional Association of Diving Instructors (PADI)
 - SCUBA Schools International (SSI).
- Relevant legislation*** may include:
- occupational health and safety
 - permits or permission for access
 - environmental regulations
 - marine regulations.
- Organisational policies and procedures*** may include:
- occupational health and safety
 - communication protocols
 - code of ethics
 - manufacturer's recommendations.
- Hazards*** may include:
- temperature extremes
 - poor visibility
 - rough conditions
 - rocks and reefs
 - water depth
 - squeezes
 - barotrauma
 - panic
 - aquatic animals and plants.
- Physics and physiology*** may include
- pressure or volume or density relationships
 - temperature
 - buoyancy
 - respiration
 - air consumption
 - ingassing and offgassing
 - decompression sickness

- nitrogen narcosis
- oxygen toxicity
- carbon monoxide toxicity

Risks may include:

- hypothermia
- heat exhaustion
- injuries
- eshaustion
- lost party or party member
- equipment failure
- nitrogen narcosis
- drifting
- hypercapnia
- buoyancy control
- near drowning
- getting lost or separated from group
- barotrauma
- nitrogen narcosis
- contaminated SCUBA air
- cramps
- stings or bites
- Decompression Illness (DCI).

Relevant sources may include:

- Bureau of Meteorology
- media
- land managers or agencies
- coastal patrol or coastguard
- volunteer marine rescue
- local knowledge.

Weather and environmental information may include:

- satellite images
- daily and weekly forecasts
- maximum and minimum temperatures
- weather warnings
- event warnings
- river warnings
- synoptic charts
- high and low tide predictions.

Deep dive equipment may include:

- fins
- mask
- snorkel
- wetsuit or drysuits
- buoyancy control device (BCD) with low

pressure inflator

- compressed air cylinder and valve
- regulator and backpack
- alternate air source
- submersible pressure gauge
- timing device
- depth gauge
- no-decompression tables
- computer
- weight belt and weights
- diver's tool
- communication equipment
- navigation equipment.

Diver's needs and characteristics may include:

- age
- cultural and situational factors
- previous dive experience and knowledge
- physical development
- diver's build, weight and lung capacity.

Relevant aspects may include:

- objectives
- planning process
- activity site
- weather
- equipment selection
- clothing selection
- food selection
- instructional technique
- assessment technique
- group feedback
- directing techniques
- rescue techniques employed.

Unit Sector(s)

Outdoor Recreation

Competency Field

SCUBA