



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **SISONAV201A Demonstrate navigation skills in a controlled environment**

**Release: 2**

## **SISONAV201A Demonstrate navigation skills in a controlled environment**

### **Modification History**

Not Applicable

### **Unit Descriptor**

This unit describes the performance outcomes, skills and knowledge required to navigate in controlled environments where there are significant landmarks.

### **Application of the Unit**

This unit applies to those working as assistant outdoor recreation guides, such as bushwalking or skiing, under supervision, in controlled environments that are reliably marked on maps and are obvious on the ground, snow or in the water.

This unit may also apply to outdoor recreation leaders working for outdoor education or adventure providers; volunteer groups; not-for-profit organisations or government agencies.

### **Licensing/Regulatory Information**

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

### **Pre-Requisites**

Nil

### **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.

- |                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Plan for navigation.                 | 1.1. Obtain and become familiar with <b><i>map or maps</i></b> for the activity.<br>1.2. Identify <b><i>symbols and information</i></b> contained on the map and how these may be used in navigation.<br>1.3. Apply information contained on the map to plan an efficient route or course and consider all <b><i>relevant factors</i></b> .<br>1.4. Obtain and identify features of a compass and how it is used to maintain a designated course.<br>1.5. Calculate grid and magnetic bearings using a map and compass.<br>1.6. Obtain <b><i>additional information</i></b> to assist in navigation from the map.<br>1.7. Identify emergency or contingency escape routes. |
| 2. Navigate in controlled environments. | 2.1. Orientate map to <b><i>surroundings</i></b> with and without the use of a compass.<br>2.2. Follow a route in <b><i>controlled environments</i></b> , demonstrating use of <b><i>navigation aids</i></b> according to <b><i>relevant legislation</i></b> and <b><i>organisational policies and procedures</i></b> .<br>2.3. Apply <b><i>techniques for estimating distance</i></b> travelled.<br>2.4. Maintain, where necessary, a compass course while bypassing an <b><i>obstacle</i></b> .<br>2.5. Identify unknown features in the field using map and compass.<br>2.6. Select a route or course for the surroundings and conditions.                              |
| 3. Evaluate navigations.                | 3.1. Evaluate <b><i>relevant aspects</i></b> .<br>3.2. Identify improvements for future navigations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

## Required Skills and Knowledge

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

### Required skills

- literacy skills to:
  - read and interpret maps
  - follow instructions and procedures
- planning and organising skills to:
  - obtain navigation equipment
  - plan a route or course
- communication skills to interact with group leader and other participants to maintain a positive and safe environment while navigating
- numeracy skills to navigate and calculate grid and magnetic bearings and distances using a map and compass.

### Required knowledge

- legislation and organisational policies and procedures to enable safe conduct of all activities
- different types of maps, and their advantages and disadvantages to enable appropriate map selection
- map features, including symbols, contour lines, scales, grid lines and legends to enable effective map reading
- features of a compass, their use and factors that affect compass accuracy
- route planning and factors that should be considered, such as weather and type of terrain
- navigation techniques in controlled environments to determine distance, location, direction and potential hazards.

## 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 plan a route in controlled environments and demonstrates navigation techniques to orientate and follow directions
- seeks advice and feedback from leader to improve skills and ensure safety of self and group
- evaluates and reflects on own navigation performance to identify strengths, weaknesses and areas that need improvement.

#### Context of and specific resources for assessment

Assessment must ensure participation in navigation activities in controlled environments that are of sufficient breadth and duration to demonstrate competency and consistency of performance.

Assessment must also ensure access to:

- a suitable outdoor location, with tracks that are reliably marked on maps, are obvious on the ground and are inspected on a regular basis that align with Class 4 Tracks within the Australian Standard for Walking Tracks
- navigation equipment such as map or maps, compass and activity specific 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:

- observation of the planning and review process with evidence of reference to resources and aids
- oral or written questioning to assess knowledge of navigation techniques
- observation of safe participation and demonstration of navigation skills, such as maintaining a compass course while bypassing an obstacle
- third-party reports from a supervisor detailing performance.

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:

- SISOBWG201A Bushwalk in controlled environments

or

- SISOSKT201A Demonstrate basic cross country skiing skills

or

- SISORAF201A Demonstrate rafting skills on moving water.

## 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.

***Map or maps*** may include:

- cadastral and topographic maps
- charts
- guide books and diagrams.

***Symbols and information*** may include:

- grid lines and numbers
- contour lines
- scale
- map legend
- topographic features
- markers and beacons
- water depth.

***Relevant factors*** may include:

- type of terrain and gradient
- weather conditions
- experience
- hazards
- access to required resources and facilities.

***Additional information*** may include:

- altitude gain or loss
- distance
- gradient
- travelling time
- magnetic bearings
- water depth.

***Surroundings*** may include:

- ground or terrain
- snow conditions
- bodies of water
- beacons and markers
- natural formations
- landmarks
- man-made features.

***Controlled environments*** may include:

- areas reliably marked on maps
- areas obvious on the ground or snow or water
- tracks align with Class 4 Tracks within the Australian Standard for Walking Tracks.

***Navigation aids*** may include:

- track and creek junctions and crossings
- survey markers

- beacons
- track markers
- cairns
- paths
- lines
- signs
- arrows
- compass
- man-made objects or features
- transits.

**Relevant legislation** may include:

- occupational health and safety
- permits or permission for access
- environmental regulations.

**Organisational policies and procedures** may include:

- occupational health and safety
- use and maintenance of equipment
- communication protocols
- code of ethics.

**Techniques for estimating distance** may include:

- time
- observation of surroundings
- pacing.

**Obstacles** may include:

- rivers
- logs
- rocks
- gullies
- trees
- snow conditions
- exposed areas.

**Relevant aspects** may include:

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

## **Unit Sector(s)**

Outdoor Recreation

## **Competency Field**

Navigation