



Australian Government

Department of Education, Employment and Workplace Relations

SISOCYT303A Apply on-road cycling skills

Release: 2

SISOCYT303A Apply on-road cycling skills

Modification History

Not Applicable

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to participate independently in on-road cycling activities of up to one day duration over moderate to steep terrain in a range of weather, terrain and traffic conditions. Other related competencies such as navigation are defined elsewhere.

Application of the Unit

This unit applies to those working as on-road cycling tour guides under supervision in controlled conditions, including moderate to steep terrain. This unit may also apply to 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

SISOCYT201A Select, set up and maintain a bike
SISOCYT202A Demonstrate basic cycling skills

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 cycle tour. | 1.1. Identify and plan <i>food and water requirements</i> according to <i>principles of nutrition</i> and the duration of the tour.
1.2. Select a route according to route requirements, <i>contextual issues, relevant legislation and organisational policies and procedures.</i>
1.3. Access <i>relevant sources</i> to interpret detailed <i>weather and environmental information</i> and determine tour plans.
1.4. Identify potential <i>hazards</i> and <i>obstacles</i> associated with on-road cycling and procedures to minimise <i>risks.</i>
1.5. Establish a suitable communication system to use when riding in a group. |
| 2. Select equipment and conduct pre tour checks. | 2.1. Select personal and protective clothing and identify design and or construction features that make it appropriate, according to contextual issues.
2.2. Select <i>touring bicycle</i> and <i>equipment</i> according to relevant legislation, organisational policies and procedures and expected cycling conditions.
2.3. Perform routine pre-departure <i>checks</i> on touring bicycle and all equipment.
2.4. Correct any deficiency and check that the touring bicycle is <i>correctly proportioned</i> for personal use.
2.5. Identify and apply <i>comfort items</i> to improve ride.
2.6. <i>Load</i> touring bicycle correctly on to vehicle, where required.
2.7. Ensure the proposed route is realistic in terms of <i>personal requirements.</i> |
| 3. Negotiate a road cycle route. | 3.1. Adopt appropriate posture and maintain control and balance at all times when riding over different terrain types and gradients. |

ELEMENT**PERFORMANCE CRITERIA**

- 3.2. Maintain tyre pressure at recommended minimum pressure for conditions and load.
- 3.3. Maintain position on the **road** to avoid collisions with vehicles.
- 3.4. Communicate with cyclists, motorists and other users, and apply **rider etiquette**.
- 3.5. Negotiate hazards and obstacles in a safe manner and take measures to guard personal and group safety.
- 3.6. Modify technique to account for changes in terrain and gradient, demonstrating **high level riding skills**.
- 3.7. Pace cycling and adopt safe group or bunch riding techniques to maintain group cohesion.
- 3.8. Use lead and or tail vehicles, where appropriate.
- 4. Conduct touring maintenance and repairs in the field.
 - 4.1. Identify and use cycling **tools and spare parts** according to manufacturer's specifications and organisational policies and procedures.
 - 4.2. Assemble and carry an in-field repair kit according to type of bicycle and activity requirements.
 - 4.3. Conduct routine and non-routine touring bicycle **maintenance** checks and repairs.
- 5. Evaluate the cycling activity.
 - 5.1. Evaluate **relevant aspects** of the on-road cycling activity.
 - 5.2. Identify improvements for future on-road cycling activities.

Required Skills and Knowledge

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

Required skills

- problem-solving skills to:
 - negotiate hazards and obstacles while cycling
 - modify cycling technique to account for changes in terrain and gradient
 - conduct pre and post tour checks and maintenance on touring bicycle
- planning and organising skills to source and allocate necessary touring bicycle and equipment to enable safe cycle touring
- communication skills to interact with other cyclists and motorists
- first aid and emergency response skills appropriate to the location to enable initial response to emergencies and personal health care.

Required knowledge

- legislation and organisational policies and procedures to enable safe conduct of all on-road cycling activities
- road rules, cycling codes and rider etiquette to understand cyclist's rights and responsibilities on the road, and maintain safety of other cyclists and motorists
- equipment and bicycle types, construction features, characteristics and technology used for on-road cycling and the advantages and disadvantages of the range of equipment to enable appropriate selection use and maintenance of equipment
- personal and protective cycling gear and the design and or construction features that make it appropriate for on-road cycling activities
- maintenance tools and spare parts to enable routine and non-routine maintenance checks and repairs to be conducted
- communication methods used between cyclists and motorists
- cycling techniques used according to different terrain and gradient
- hazards, obstacles and risks associated with cycle touring and how to negotiate these
- basic weather and environmental information to ascertain possible conditions and their affect on the activity
- emergency and first aid procedures relevant to the location to ensure risk minimisation to self and others.

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 processes to plan equipment and supply requirements according to the conditions
- applies rider etiquette to safely negotiate route and identify and negotiate hazards, obstacles and risks
- uses tools and spare parts to perform routine and non-routine checks, maintenance and repairs on the touring bicycle to ensure it is correctly proportioned and in safe working order
- evaluates and reflects on own on-road cycling performance to identify strengths, weaknesses and areas that need improvement.

Context of and specific resources for assessment

Assessment must ensure participation in on-road cycling activities on moderate to steep terrain types that reflect local conditions and are of sufficient breadth and duration to demonstrate competency and consistency of performance.

Assessment must also ensure access to:

- resources and information, such as meteorological data, to plan for the activity
- a location with suitable roads and moderate to steep terrain
- on-road cycling and navigation equipment, tools and spare parts 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 potential hazards, obstacles and risks associated with on-road cycling
- observation of safe participation and demonstration of on-road cycling techniques over various terrain and gradients
- observation of dealing with hazards, obstacles and contingencies, such as bicycle or equipment failure and change in conditions

- observation of conducting routine and non-routine touring bicycle maintenance checks and repairs
- 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:

- TLIH107D Interpret road maps and navigate pre-determined routes.

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.

Food and water requirements may include:

- menu planning and preparation
- range of foods.

Principles of nutrition may include:

- food groups
- dietary guidelines
- individual food requirements and allergies.

Contextual issues may include:

- weather conditions, including times
- season
- transport
- location
- trip distance and duration
- group objectives
- group size.

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, maintenance and storage of bicycles and equipment
- emergency procedures
- communication protocols
- code of ethics.

Relevant sources may include:

- Bureau of Meteorology
- media
- land managers or agencies
- local knowledge.

Weather and environmental information may include:

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

- Hazards** may include:
- temperature extremes
 - slippery or unstable terrain
 - dangerous animals and insects
 - stinging trees and nettles
 - dense vegetation
 - group management hazards
- Obstacles** may include:
- bridges
 - water on road
 - tree branches
 - bumps
 - depressions and pot holes
 - drainage grates.
- Risks** may include:
- hypothermia
 - heat exhaustion
 - injuries
 - exhaustion
 - lost party or party member
 - equipment failure.
- Touring bicycle** may include:
- road bicycle
 - hybrid bicycle, may include tri and quad bikes
 - mountain bikes.
- Equipment** may include:
- on-road cycling equipment
 - safety equipment
 - navigation equipment
 - first aid equipment
 - spare parts and tools.
- Checks** may include:
- chains
 - brakes
 - gears
 - wheels
 - bearing
 - frame
 - tyres
 - accessories
 - noise.
- Correctly proportioned** may include:
- frame size
 - handlebar height
 - saddle position and height
 - distance from saddle to handlebars.
- Comfort items** may include:
- gloves
 - padded shorts

Load may include:

- glasses or goggles
- hydration system.
- trailer
- roof rack
- bike rack.

Personal requirements may include:

- age
- cultural and situational factors
- previous experience
- cycling knowledge
- physical development.

Road may include:

- moderate to steep gradients
- heavy traffic, built up areas and open roads
- weather affected roads
- narrow and major roads
- sealed and unsealed surfaces.

Rider etiquette may include:

- other riders
- other road users.

High level riding skills may include:

- using gears to maintain a cadence of 70 - 90 pedal revolutions per minute
- applying weight transfer to steer the bike
- ascending steep hills at a steady pace
- braking and pedalling techniques
- maintaining a 1-2m clearance from the left side of the road on steep windy descents
- riding over bumps and potholes.

Tools and spare parts may include:

- allen keys
- spare tube, tyres and tyre lever
- puncture repair kit
- spanner set and or shifter
- pliers
- lubricant
- pump
- spare bolts, cables, chain, links and spokes
- chain whip
- chainbreaker
- cassette remover
- crank puller and crank wrench
- cone spanners
- degreaser or cleaner
- accessories.

Maintenance may include:

- checks

Relevant aspects may include:

- adjustments
- alignments
- lubrication
- replacement
- repairs.
- 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

Cycling Tours