

OPERATE COMPUTERIZED AGRICULTURAL EQUIPMENT

ISCED UNIT CODE: 0716 351 03A

TVETCDACC UNIT CODE: ENG/OS/AME/CR/03/4/MA

UNIT DESCRIPTION

This unit specifies the competencies required by a Farm Machinery and Equipment Operator Level 4 to utilize computerized agricultural equipment. It involves activating, navigating and operating computerized agricultural equipment.

ELEMENTS AND PERFORMANCE CRITERIA

ELEMENT	PERFORMANCE CRITERIA
These describe the key outcomes which make up workplace function.	These are assessable statements which specify the required level of performance for each of the elements. <i>Bold and italicized terms are elaborated in the Range.</i>
1. Operate computer devices	1.1.Procedure for turning/off a computer is performed as per user manual. 1.2.Computer devices types are identified as per work place procedure. 1.3.Computer systems and components are identified as per work place requirements.
2. Activate computerized agricultural equipment	2.1.Personal protective equipment is worn based on OSHA 2.2. Computerized agricultural equipment components are assembled as per operator's manual. 2.3.Computerized agricultural equipment is activated as per operator's manual.
3. Navigate computerized agricultural equipment	3.1.Personal protective equipment is worn based on OSHA 3.2.Computerized agricultural equipment menu is accessed as per operator's manual. 3.4.Computerized agricultural equipment is customized as per work requirement.
4. Operate computerized agricultural equipment	4.1.Personal protective equipment is worn based on OSHA 4.2. <i>Computerized agricultural equipment functions</i> are selected as per work requirement. 4.3.Computerized agricultural equipment is operated as per

	operator's manual.
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RANGE

This section provides work environment and conditions to which the performance criteria apply. It allows for different work environment and situations that will affect performance.

Variable	Range
1. Computerized agricultural equipment components include but not limited to:	<ul style="list-style-type: none"> • OBD • Display interfaces • Control systems • Joystick • Sensors • GPS receivers • Actuators of robotic arms • Communication modules
2. Computerized agricultural equipment functions include but not limited to:	<ul style="list-style-type: none"> • Mowers • Balers • Conditioners • Forage harvesters • Combine

REQUIRED KNOWLEDGE AND SKILLS

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

Required knowledge

The individual needs to demonstrate knowledge of:

- Data analysis and presentation
- Computer application packages
- Field assessment procedures

- Different land condition
- Different farm tools and materials
- Soil and water conservation
- Occupational safety and health procedures

Required skills

The individual needs to demonstrate the following skills:

- Record keeping
- Planning
- Digital literacy
- Measuring
- Decision making
- Communication skills

EVIDENCE GUIDE

This provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills range.

1. Critical aspects of competency	<p>Assessment requires evidence that the candidate:</p> <p>1.1 Determined work, energy and power as per work requirement</p> <p>1.2 Solved problems on simple machines as per work procedure</p> <p>1.3 Solved problems on levers as per work procedures</p> <p>1.4 Determined bending moments based on loading</p> <p>1.5 Applied forces and bending moments in engineering systems</p> <p>1.6 Calculated flow rate in pipes as per required discharge</p> <p>1.7 Determined losses in pipes as per flow rate measurement</p>
2. Resource implications	<p>The following resources should be provided:</p> <p>2.1 Appropriately simulated environment where assessment can take place</p> <p>2.2 Access to relevant workplace</p> <p>2.3 Materials relevant to the proposed activity or tasks</p>

3. Methods of assessment	Competency in this unit may be assessed through: 3.1 Practical 3.2 Project 3.3 Portfolio of evidence 3.4 Third party report 3.5 Written tests 3.6 Oral assessments
4. Context of assessment	Competency in this unit may be assessed in; 4.1 A workplace or simulated workplace.
5. Guidance information for assessment	Holistic assessment with other units relevant to the industry sector and workplace job role is recommended.