



Australian Government

ICTAUT502 Evaluate automated industrial manufacturing processes

Release: 1

ICTAUT502 Evaluate automated industrial manufacturing processes

Modification History

Release	Comments
Release 1	This version first released with the Information and Communications Technology Training Package Version 8.0. Newly created unit of competency to address in-demand skills needs.

Application

This unit describes the skills and knowledge required to analyse automated industrial manufacturing processes to solve operational problems and increase industrial efficiency. It includes identifying automated industrial manufacturing processes, reviewing organisational specifications and delivering recommended solutions to improve procedural processes.

The unit applies to individuals who may work as automation technicians supporting the automation of industrial manufacturing processes.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Automation

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify automated industrial manufacturing process solutions	1.1 Confirm work brief and tasks according to organisational policies and procedures 1.2 Analyse existing industrial manufacturing processes potentially suitable for automation according to work brief 1.3 Document manufacturing processes suitable for automation according to analysis 1.4 Research automated industrial manufacturing

ELEMENT	PERFORMANCE CRITERIA
	processes according to work brief 1.5 Identify and document industrial automation considerations
2. Review organisational specifications	2.1 Evaluate organisational scalability requirements according to work brief 2.2 Research requirements for organisational process volume and variety 2.3 Evaluate organisational facility layout according to work brief 2.4 Analyse and document findings in required format
3. Develop organisational recommendations	3.1 Select automated industrial manufacturing process solution according to documented research findings 3.2 Analyse potential implementation risks according to work brief 3.3 Assess potential solutions to identified risks 3.4 Document implementation recommendations according to work brief 3.5 Confirm that recommendations report contains rationale, research findings and risk analyses
4. Deliver organisational recommendations	4.1 Present recommendations to required personnel 4.2 Seek feedback from required personnel 4.3 Apply feedback and implement required changes 4.4 Obtain approval on recommendations from required personnel 4.5 Distribute approved recommendations to required personnel

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

Skill	Description
Oral communication	Presents recommendations and issues according to organisational requirements and uses required conventions, protocols, and language appropriate to audience
Reading	Interprets a range of technical information and determines solutions according to organisational requirements

Skill	Description
Writing	Documents recommendations using industry-specific and technical language
Problem solving	Applies principles of analytical thinking to identify organisational issues and select appropriate solutions
Self-management	Makes some critical and non-critical decisions to develop recommendations
Technology	- Identifies and confirms purposes, specific functions and key features of common digital systems and tools - Applies principles, concepts, language and practices applicable to automated industrial manufacturing processes

Unit Mapping Information

No equivalent unit. Newly created unit.

Links

Companion Volume Implementation Guide is found on VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>

Assessment Requirements for ICTAUT502 Evaluate automated industrial manufacturing processes

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Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- recommend at least two automated industrial manufacturing process solutions to streamline two different organisational processes.

In the course of the above, the candidate must:

- document research findings and recommendations in required styles, formats and layouts
- select reliable sources of information to synthesise information and suggest recommendations
- apply required organisational policies and procedures.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- functions and features of industry-recognised automated and procedural industrial manufacturing processes
- functions and features of automation tools and techniques in industrial manufacturing processes
- advantages and disadvantages of automated industrial manufacturing process solutions
- key types and characteristics of automated industrial manufacturing processes, including:
 - process scalability
 - process volume and variety
 - organisational facility layouts
- key implementation considerations required when automating manufacturing processes
- functions and features of risk analyses

- methodologies used to identify and mitigate risks when automating manufacturing processes
- features of documentation and recommendation reports
- organisational policies and procedures, and legislative requirements relating to work tasks.

Assessment Conditions

Skills in this unit must be demonstrated in a workplace or simulated environment where the conditions are typical of those in a working environment in this industry.

This includes access to:

- required industrial manufacturing processes and automated solutions as outlined in work brief
- opportunities for interaction with others
- work brief and organisational policies and procedures required to demonstrate the performance evidence.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

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