



Australian Government

FBPOPR4001 Apply principles of statistical process control

Release: 1

FBPOPR4001 Apply principles of statistical process control

Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

Application

This unit of competency describes the skills and knowledge required to collect statistical information and interpret data in order to inform work processes.

This unit applies to individuals who are required to collect, interpret and record data to inform work. This typically includes plotting data on run charts and statistical process control (SPC) charts; and identifying trends and variations according to given limits.

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

Pre-requisite Unit

Nil

Unit Sector

Operational (OPR)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Collect statistical information	1.1 Identify data collection requirements and confirm with supervisor 1.2 Gather data using available collection equipment 1.3 Accurately record data to meet data collection requirements
2. Interpret data	2.1 Analyse data to identify variations and trends 2.2 Carry out calculations to determine unknown values 2.3 Determine corrective action requirements based on data

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	2.4 Document and store data according to workplace requirements

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Numeracy	Use statistical analysis techniques to calculate, compare and manipulate data
Writing	Record data and present information in required format
Get the work done	- Make decisions based on analysis of available data - Use manual and computer-based methods to interpret data and identify trends

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR4001 Apply principles of statistical process control	FDFOP2015A Apply principles of statistical process control	Updated to meet Standards for Training Packages Unit code updated to reflect AQF level Minor changes to Performance Criteria to clarify intent. Prerequisite removed.	Equivalent unit

Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

Assessment Requirements for FBPOPR4001 Apply principles of statistical process control

Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has applied the principles of statistical process control to at least two different sets of data, including:

- identifying data needed for collection
- gathering and accurately recording required data
- applying statistical analysis techniques and identifying variations, trends and any necessary corrective actions
- presenting a range of statistical data in appropriate workplace format.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- data sampling methods, including the nature of the sample on which data is based, and the reasons for different sampling requirements that may apply in a given situation
- concept of variation, including the difference between common and special causes of variation, and consequent options for reducing variation and remaining within a given range
- the purpose and process of establishing targets and limits
- the concept of standard distribution/standard deviation
- methods used to interpret statistical data, including methods to determine the average, median and mean, and what these measures indicate
- a variety of calculations to determine unknown values
- using binomial theorem
- using variability and probability to estimate and interpret outcomes in both numerical and qualitative terms
- situations in which corrective action is required.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
 - statistical process control data
 - related data collection and analysis systems
 - calculator.

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

Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>