Modification history

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

| FBPLAB3007 | Analyse laboratory data |
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| Application | This unit of competency describes the skills and knowledge required to perform routine laboratory calculations, analyse trends and report results in a wine operations laboratory environment.  This unit applies to individuals who are responsible for routine laboratory calculations, analysing trends and reporting results in a format determined by the scope and classification of the laboratory.  No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.  All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace. |
| Prerequisite Unit | Nil |
| Unit Sector | Laboratory (LAB) |

| Elements | Performance Criteria |
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| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Perform laboratory calculations | 1.1 Confirm work instructions and identify potential WHS hazards and controls  1.2 Confirm that raw data is within standard or normal range of results  1.3 Use arithmetic processes involving decimals, fractions, ratios, proportions and concentrations to perform laboratory calculations  1.4 Calculate scientific quantities using given formulae and data  1.5 Verify calculated quantities by using estimation techniques  1.6 Present data using the relevant corrections, factors, units, and number of significant figures |
| 2. Analyse laboratory data | 2.1 Analyse data to determine if the product and process is in control  2.2 Identify and report trends and anomalies in data  2.3 Identify and investigate possible causes for variation or non-compliance  2.4 Take corrective action to maintain process and product within control |
| 3. Report results | 3.1 Use charts, tables and graphs to present results  3.2 Verify correct data entry  3.3 Prepare reports in the required format  3.4 Report results within the specified time  3.5 Maintain workplace confidentiality standards |

| 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. | |
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| Skill | Description |
| Reading | * Interpret control charts and analyse trends * Interpret laboratory practices and procedures |
| Writing | * Present accurate results in the required format |
| Numeracy | * Store, access and manage laboratory data * Analyse data to determine relationships between variables |
| Navigate the world of work | * Apply knowledge of regulations and policies relevant to laboratory testing environment * Identify and describe responsibilities, skills, knowledge and experience within context of job role * Seek and provide feedback on current work performance |
| Interact with others | * Select and use communication strategies when interacting with work colleagues * Use active listening, observational and questioning techniques to confirm information about laboratory data * Ask questions to clarify understanding or seek further information * Recognise personal strengths and challenges associated with interacting with others in the workplace |
| Get the work done | * Devise and implement solutions for the overseeing and maintenance of data storage and retrieval * Use problem solving skills to investigate abnormal results and revise procedures where necessary * Manage and prioritise tasks and timelines * Recognise and act on opportunities for continuous improvement in accordance with workplace practices |

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| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| FBPLAB3007 Analyse laboratory data | FDFLAB2008A Analyse laboratory data | Updated to meet Standards for Training Packages  Removal of prerequisite due to no longer required by industry | Equivalent unit |

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| Links | Companion Volumes, including Implementation Guides, are available at VETNet:  <https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4> |

| TITLE | Assessment requirements for FBPLAB3007 Analyse laboratory data |
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| Performance Evidence | |
| An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.  There must be evidence that the individual has analysed laboratory data on at least one  occasion, including:   * performing laboratory calculations involving fractions, decimals, ratios, percent, and proportion * calculating scientific quantities using example calculations: * dilution * addition * concentration * absorbance, transmittance * conductivity * mechanical properties * quantities related to quality assurance inspection, testing and recording * verifying calculations and rectifying mistakes * presenting accurate results in the required format * identifying deviations in performance and taking appropriate action * recognising anomalies and trends in data * maintaining the confidentiality of data * reporting results in a timely manner in the required format * securing records as required * interpreting basic statistical data * following example calculations involving simple chemical equations. | |

| Knowledge Evidence |
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| 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:   * purpose and principles of routine laboratory reports * workplace policy and procedures with regard to: * traceability * verification * correcting mistakes * filing reports * distributing reports * maintaining records * updating records * confidentiality and security * quality improvement * scientific and mathematical expressions, including precision, accuracy, parameter, specification, control limit, tolerance, factor, uncertainty * relevant product and process standards, specifications, tolerances, parameters * characteristics of valid testing parameters * preparation and interpretation of graphs, charts and tables * statistical concepts * simple chemical equations. |

| Assessment Conditions |
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| Assessment of skills must take place under the following conditions:   * physical conditions: * a workplace or an environment that accurately represents workplace conditions * resources, equipment and materials: * personal protective clothing and equipment as required * equipment, services and corresponding information as required * products and materials as required * cleaning procedures, materials and equipment as required * documentation and recording requirements and procedures * specifications: * work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements * instructions, information, specifications and schedules as required * relationships (internal and/or external): * internal and external customers and suppliers as required.   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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