Modification history

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

| FBPLAB2005 | Prepare and pour culture media |
| --- | --- |
| Application | This unit of competency describes the skills and knowledge required to prepare and dispense culture media for microbiological tests in a wine operations laboratory environment using standard methods.  This unit applies to individuals who are responsible for applying basic laboratory principles to standard microbiological procedures. All work is carried out to comply with workplace procedures and the principles of good laboratory practice (GLP) under general supervision, with limited autonomy and accountability for their own work.  No occupational licensing, legislative or certification requirements are known to 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 |
| --- | --- |
| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Prepare materials and equipment | 1.1 Confirm work instructions and identify potential WHS hazards and controls  1.2 Select personal protective equipment and clothing for safety and contamination control  1.3 Apply disinfection procedures to self and work areas  1.4 Confirm that services and equipment are available and ready for use  1.5 Select, prepare and check equipment  1.6 Select appropriate materials and check condition and date  1.7 Prepare materials to meet requirements |
| 2. Prepare culture media | 2.1 Measure and mix media and solvent  2.2 Place media in appropriate vessels for sterilisation  2.3 Load and operate steriliser to achieve optimum sterilising conditions for culture media  2.4 Monitor sterilisation cycle to confirm equipment operating condition  2.5 Use appropriate personal protective equipment (PPE) when removing media from steriliser  2.6 Cool culture media as required  2.7 Identify and report out-of-specification process and equipment performance |
| 3. Complete preparation of culture media | 3.1 Make heat-labile additions using aseptic technique as required  3.2 Dispense media aseptically as instructed  3.3 Store and label culture media as instructed  3.4 Monitor media to confirm quality specifications are maintained  3.5 Clean and disinfect equipment and work area after use  3.6 Monitor and clear waste generated by the process  3.7 Carry out work with consideration of workplace environmental guidelines  3.8 Record workplace information in the appropriate format |

| 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 |
| Reading | * Comprehend textual information from a variety of workplace documents accurately |
| Writing | * Record workplace information using industry-based vocabulary, grammar and conventions |
| Oral Communication | * Converse clearly using industry-specific language |
| Numeracy | * Calculate numerical information relating to measurements, quantities and laboratory specifications |
| Navigate the world of work | * Follow clear instructions within defined level of responsibility * Recognise own work performance and seek assistance where required |
| Get the work done | * Recognise and act on opportunities for continuous improvement in accordance with workplace practices * Use the main features and functions of digital tools to complete computational analysis and recording of results * Respond to routine problems using step-by-step instructions and procedures |

|  |  |  |  |
| --- | --- | --- | --- |
| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| FBPLAB2005 Prepare and pour culture media | FDFLAB2005A Prepare and pour culture media | Updated to meet Standards for Training Packages  Removal of prerequisites as no longer required by industry | Equivalent unit |

|  |  |
| --- | --- |
| 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 FBPLAB2005 Prepare and pour culture media |
| --- | --- |
| 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 demonstrated the following at least once:   * confirming supply of necessary materials, equipment and services * recognising and rejecting out-of-specification materials * confirming equipment status and condition including recognising and rejecting contaminated or faulty glassware and equipment * setting-up equipment as required * operating equipment according to workplace procedures * monitoring the process and equipment operation to identify out-of-specification results or non-compliance: * monitoring the handling and combining of materials to prevent cross contamination * monitoring the utilisation of aseptic techniques * taking corrective action and reporting out-of-specification results, anomalies or non-compliance * reporting and recording corrective action * completing workplace information and labelling requirements * labelling and storing dry and prepared culture media under appropriate conditions: * light * temperature * shelf-life * contamination * sorting, collecting, treating, recycling or disposing of waste * maintaining work area to meet housekeeping and aseptic standards * cleaning, sanitising and storing equipment * identifying, rectifying or reporting environmental non-compliance. | |

| 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:   * basic microbiological concepts and terminology * purpose and features of culture media * properties and use of a range of biological media used in the wine laboratory * effect of inappropriate storage on culture media quality and performance * emergency and troubleshooting procedures for a range of operational problems * effect of process stages on results and/or outcomes * process specifications, procedures and operating parameters * common causes of inaccuracies or contamination, and preventive or corrective action required * work health and safety (WHS) hazards and controls * procedures and responsibility for reporting problems * environmental issues and controls * cleaning and sanitising requirements of equipment and work area * aseptic requirements and techniques * recording requirements and procedures. |

| Assessment Conditions |
| --- |
| 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 procedure * 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. |

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