Modification history

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| Release | Comments |
| Release 2 | This version released with AHC Agriculture, Horticulture, Conservation and Land Management Training Package Version XX. |
| Release 1 | This version released with AHC Agriculture, Horticulture, Conservation and Land Management Training Package Version 1.0. |

| AHCPER403 | Design an urban permaculture system |
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| Application | This unit of competency describes the skills and knowledge required to negotiate with clients to develop a design brief, undertake site assessment, develop design concepts and produce final design documentation for an urban permaculture system.  The unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.  No licensing, legislative or certification requirements apply to this unit at the time of publication. |
| Prerequisite Unit | Nil |
| Unit Sector | Permaculture (PER) |

| 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. Develop a design brief for an urban permaculture system | 1.1 Consult with client and determine design objectives for an urban permaculture system  1.2 Determine design context  1.3 Develop and confirm design brief with client  1.4 Negotiate and confirm budget and timelines for design development |
| 2. Undertake design analysis | 2.1 Access maps, images and geospatial data for site  2.2 Survey site for Zones 1 and 2 and confirm or supplement information of maps and images  2.3 Prepare a site base plan  2.4 Record site survey data on site plan  2.5 Conduct a bioregional analysis for site  2.6 Identify potential permaculture design elements suitable for design brief outcomes  2.7 Assess and select permaculture design elements according to design brief  2.8 Revise and confirm design elements with client |
| 3. Prepare a design concept | 3.1 Determine and evaluate a concept for an urban permaculture system  3.2 Prepare concept design drawings  3.3 Identify and document plant and livestock suitable for concept design in an urban setting  3.4 Develop and compile a bill of materials and cost estimates for design elements, plants and livestock  3.5 Prepare a preliminary budget for design concept  3.6 Present the concept plan and budget to client for feedback and approval  3.7 Review concept plan and budget according to client feedback |
| 4. Produce final design | 4.1 Design an urban permaculture system according to design brief and approved concept plan and budget  4.2 Produce drawings and specifications for urban permaculture system  4.3 Present design plans, drawings and specifications to client for final feedback and approval  4.4 Undertake final revision changes for design according to client feedback and approvals  4.5 Finalise and record design according to workplace procedures |

| 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 | * Critically analyses plans and other documentation from a variety of sources and consolidates information to determine permaculture system requirements and client needs |
| Writing | * Prepares and produces client briefs and plans and specifications including diagrammatic models and plans to illustrate complex permaculture design principles and requirements |
| Oral communication | * Uses collaborative and inclusive techniques including active listening and questioning and reading of verbal and non-verbal signals to convey, clarify and confirm client requirements |
| Numeracy | * Applies financial modelling skills to identify, analyse and evaluate budgetary information, time durations and resource allocations for permaculture system design |

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| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| AHCPER403 Design an urban permaculture system  Release 2 | AHCPER403 Design an urban permaculture system  Release 1 | Minor changes to Application, Elements and Performance Criteria for clarity | Equivalent |

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| Links | Companion Volumes, including Implementation Guides, are available at VETNet: https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72 |

| TITLE | Assessment requirements for AHCPER403 Design an urban permaculture system |
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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 on at least one occasion designed a permaculture system for an urban property:  • consulted and negotiated with client to develop a design brief for an urban permaculture system   * developed concept ideas and sought feedback and approval from client for an urban permaculture system design * developed the concept which must include: * analysed zones and sectors relevant to an urban permaculture system design * designed elements suitable to an urban property * identified and recommended plants and animals suitable for inclusion in an urban environment * calculated materials and cost estimates for the concept   There must also be evidence that the individual has:   * prepared landscape drawings and plans for design including: * detail and construction drawings * developed planting schedules, budget and specifications * developed a final design * presented a design to a client and finalised workplace design procedures. | |

| 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:   * elements of urban permaculture design * Zones 1 and 2, as the furthest areas represented on the plan (otherwise it is a rural design) * needs supplied by other zones, even if they are supplied off site * sector analysis * bioregional analysis * design which may utilise existing architects’ drawings or local maps and plans * principles of permaculture * strategies in urban permaculture design * edible landscapes and aesthetics in design * public landscapes and community garden design * design brief * statement of scope of design * statement of client needs and requirements * list of project elements * list of assessable tasks * options for dealing with client needs and requirements * design analysis and research techniques * plan interpretation and map reading * site analysis * onsite measurement of site boundaries * mapping of boundaries to scale to a plan drawing * mapping of contour lines to a scale plan drawing * measurement and location of existing infrastructure and features on site * mapping of existing infrastructure and features to a scale plan drawing * measuring and plotting location of services (power, water, sewer, gas) * measuring and plotting location of meters or access points * site surveying methods and tools * surveying instruments for taking vertical measurements on site * surveying instruments for measuring angles on site * surveying instruments for measuring distance and horizontal measurements on site * design concepts * preliminary conceptual sketches * bubble diagrams * preliminary plans, sections and elevation design drawings * use of design drawing and drafting conventions * presentable and legible design drawings for client use, such as: * domestic systems for urban and suburban properties * rooftop, balcony and courtyard gardens * public landscapes such as streets, parks, car parks, commercial premises, industrial estates and community centres * school gardens and learnscapes * community gardens and city farms * Community Supported Agriculture systems, urban market gardens and peri-urban small holdings * urban forestry * conventional design symbols and those to convey permaculture elements * design drafting and drawing conventions * plant and animal selection * final design * rendered plan, elevation and section drawings to scale * use of design drawing and drafting conventions * use of consistent graphic style * supporting legends and keys of elements * supporting materials lists, tables, bills of quantity, timelines, installation plans and management plans * construction detail drawing * methods of design * zone and sector planning * slope planning * patterns in space and time. |

| Assessment Conditions |
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| Assessment of the skills in this unit of competency must take place under the following conditions:   * physical conditions: * skills must be demonstrated in an urban environment or an environment that accurately represents urban conditions * resources, equipment and materials: * use of survey tools and equipment * use of permaculture reference materials * drawing equipment and resources * specifications: * use of workplace procedures * use of workplace client brief * relationships: * client.   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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