

22297VIC

Course in Plan Prescribed Burning

Accredited for the period: 1 August 2015 to 31 July 2020 under
Parts 4.4 and 4.6 of the *Education and Training Reform Act*
2006.





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Section A: Copyright and course classification information

1. Copyright owner of the course	Department of Education and Training		
2. Address	<p>Department of Education and Training Higher Education and Skills Group Executive Director, Training Participation and Facilitation Division GPO Box 4367 Melbourne Victoria 3001</p> <p>Organisational Contact: Manager Training Products Higher Education and Skills Group Telephone: (03) 9637 3688</p> <p>Day to day contact: Primary Industries Curriculum Maintenance Manager Email: kateb-rd@melbournepolytechnic.edu.au Telephone: (03) 9269 1391</p>		
3. Type of submission	Accreditation		
4. Copyright acknowledgement	Copyright of this material is reserved to the Crown in the right of the State of Victoria © State of Victoria (Department of Education and Training) 2015.		
5. Licensing and franchise	<p>Copyright of this material is reserved to the Crown in the right of the State of Victoria. © State of Victoria (Department of Education and Training) 2015.</p> <p>This work is licensed under a Creative Commons Attribution-NoDerivs 3.0 Australia licence (http://creativecommons.org/licenses/by-nd/3.0/au/). You are free to use, copy and distribute to anyone in its original form as long as you attribute Higher Education and Skills Group, Department of Education and Training as the author and you license any derivative work you make available under the same licence.</p>  <p>Request for other use should be addressed to : Department of Education and Training Higher Education and Skills Group Executive Director Training Participation and Facilitation Division GPO Box 4367 Melbourne VIC 3001</p> <p>Copies of this publication can be downloaded free of charge from http://www.education.vic.gov.au/training/providers/rto/Pages/courses.aspx</p>		
6. Course accrediting body	Victorian Registration and Qualifications Authority (VRQA) Website : http://www.vrqa.vic.gov.au/		
7. AVETMISS information	ANZSCO [Australian and New Zealand Standard	234311 Conservation officer	



	<i>Classification of Occupations]</i>	
	ASCED Code – 4 digit <i>(Field of Education)</i>	0509 Environmental Studies
	<i>National course code</i>	22297VIC to be provided by the VRQA when the course is accredited
8. Period of accreditation	1 August 2015 to 31 July 2020	



Section B: Course information

1. Nomenclature		Standard 1 AQTF Standards for Accredited Courses
1.1. Name of the qualification	22297VIC Course in Plan Prescribed Burning	
1.2. Nominal duration of the course	60 hours	
2. Vocational or educational outcomes		Standard 1 AQTF Standards for Accredited Courses
2.1. Purpose of the course	<p>The Course in Plan Prescribed Burning is intended for individuals who require the technical skills to plan for prescribed burning for land management purposes. Graduates of this course may find work in an agency or enterprise that uses prescribed burning as a land management technique, usually to manage fuel loads to reduce the risk of wildfire, but also as a tool for regeneration of natural areas for ecological or cultural purposes.</p> <p>Participants may seek employment with:</p> <ul style="list-style-type: none"> - Local government - State government - State fire agencies - Land owners or managers of natural resources 	
3. Development of the course		Standards 1 and 2 AQTF Standards for Accredited Courses
3.1. Industry / enterprise/ community needs	<p>This course supports the implementation of recommendations from the 2009 Victorian Bushfires Royal Commission, namely:</p> <ul style="list-style-type: none"> • Recommendation 56: The State fund and commit to implementing a long-term program of prescribed burning based on the annual rolling target of 5 per cent minimum of public land. • Recommendation 57: The Department of Sustainability and Environment report annually on prescribed burning outcomes in a manner that meets public accountability objectives, including publishing details of targets, areas burnt, funds expended of the program and impacts on biodiversity. • Recommendation 58: The Department of Sustainability and Environment upgrade its program of long-term data collection to monitor and model the effects of its prescribed burning programs and of bushfires on biodiversity in Victoria. <p>Changes to and reductions in the use of fire regimes have affected environmental fuel loads which in turn have increased the frequency and intensity of wildfires that endanger human life, property, ecological communities and our cultural heritage.</p> <p>As a result of the Royal Commission, responsible agencies are committed to reduce the risk to the community. Prescribed burning is a</p>	

major strategy used to manage fuel loads.

Responsible agencies such as the Department of Environment, Lands, Water and Planning, fire agencies, local government and even private land owners and managers require individuals with the skills and knowledge to use prescribed burning to reduce fuel loads as well as protect ecological and cultural assets.

The proposed course does not duplicate any qualifications or units of competencies within existing Training Packages. The AHC10 Agriculture, Horticulture and Conservation and Land Management Training Package includes the unit AHCILM509A *Plan burning for natural and cultural resources* but in June 2013 it was found that the outcomes from the superseded unit FPINCR034A *Utilize burning for natural and cultural resource management* from RTD02 Conservation and Land Management Training Package had been incorporated into the new unit in error rather than the outcomes from the superseded unit FPINCR033A *Plan burning for natural and cultural resource management*. A comparison of the fire units PUAFIR406B Develop prescribed burning plans, AHC FIR501A Manage wildfire hazard reduction programs and PUAFIR513A Develop complex prescribed burn plans was undertaken

For PUAFIR406B, Elements 1 and 2 are similar to FPINCR033A *Plan burning for natural and cultural resources*. Element 3 is covers the implementation part similar to FPINCR034 *Utilize burning*. Need to undertake burning (implement the plan) for element 3. This presents difficulties in delivery outside of a fire agency in terms of resources and OHS. Also the weather may not allow for burning.

For AHC FIR501A Manage wildfire hazard reduction programs. The emphasis of this unit is on wildfire hazards. It does not specifically cover the cultural and ecological fire management issues. It also has implementation of the plan which presents difficulties in delivery outside of a fire agency in terms of resources and OHS. Also the weather may not allow for burning. Pre-requisites also present a resource/OHS issue outside of a fire agency.

PUAFIR513A An advanced unit in terms of complexity and is intended for someone working in a fire agency (not pre-employment). Pre-requisites also present a resource/OHS issues outside of a fire agency.

The Agrifoods Industry Skills Council has advised that the unit AHCILM509A will be revised in the process to transition all unit of competency from the AHC10 Training Package into the Standards for Training Packages. This work is scheduled for completion by the end of 2015 but may not be finalised. Until the transition is completed, industry does not have access to nationally recognised training that meets its needs.

A steering committee was established to advise on the development of this course. Members of the steering committee were:

Greg McCarthy - Fire Ecology Planner East Gippsland
Department of Environment, Lands, Water and Planning (DELWP)-
Chair

Gerry Laughton - Indigenous Liaison Officer and Cultural Heritage
(DELWP)



	<p>Rod Stebbing - Principal Consultant, Emtrain Fire and Community Safety Pty Ltd Martin Roberts - Bushland Works Officer, City of Whittlesea Tony Scicluna - Wildfire Instructor, Country Fire Authority, Hume Region District 12 Bruce Macpherson – Chair, Natural Resource Management Providers Network, Federation Training</p> <p>The Project Manager was Kate Bryce, Primary Industries Curriculum Maintenance Manager, Melbourne Polytechnic. The Project Officer was Anne Wiltshire, Melbourne Polytechnic.</p> <p>A Skills and Knowledge Survey was developed following face to face and electronic consultation with the steering committee. The steering committee advised on and validated the survey, which was used to identify the skills and knowledge required for this unit of of competency for the course.</p>
3.2. Review for re-accreditation	Not applicable.
4. Course outcomes	Standards 1, 2, 3 and 4 AQTF Standards for Accredited Courses
4.1. Qualification level	<p><i>Standards 1, 2 and 3 AQTF Standards for Accredited Courses</i></p> <p>This course does not align with any specific Australian Qualification Framework (AQF) level but is consistent with the definition of a short course in that it is a program of learning that comprises of a unit of competency and has been accredited by an accrediting authority.</p>
4.2. Employability skills	<p><i>Standard 4 AQTF Standards for Accredited Courses</i></p> <p>Not applicable</p>
4.3. Recognition given to the course	<p><i>Standard 5 AQTF Standards for Accredited Courses</i></p> <p>Not applicable</p>
4.4. Licensing/regulatory requirements	<p><i>Standard 5 AQTF Standards for Accredited Courses</i></p> <p>At the time of accreditation no licensing or regulatory requirements apply.</p>
5. Course rules	Standards 2, 6,7 and 9 AQTF Standards for Accredited Courses
5.1. Course structure	<p>To be eligible for the 22297VIC Course in Plan Prescribed Burning participants must successfully complete the unit VU21764 <i>Plan prescribed burning for fuel, ecological and cultural management.</i></p>



Unit of competency/ module code	Field of Education code (six- digit)	Unit of competency	Pre- requisite	Nominal hours
VU21764	050901	<i>Plan prescribed burning for fuel, ecological and cultural resource management</i>	nil	60
Total nominal hours				60

5.2. Entry requirements	<p><i>Standard 9 AQTF Standards for Accredited Courses</i></p> <p>The following is a general guide to entry in relation to the language, literacy and numeracy skills of learners aligned to the Australian Core Skills Framework (ACSF), details of which can be accessed from –</p> <p>http://education.gov.au/australian-core-skills-framework</p> <p>Learners are best equipped to achieve the course outcomes in the Course in Plan Prescribed Burning if they have minimum language, literacy and numeracy skill that are equivalent to Level 3 of the Australian Core Skills Framework (ACSF). Learners with language, literacy and numeracy skills at lower levels than those suggested will require additional support to successfully undertake the course.</p>
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6. Assessment	Standards 10 and 12 AQTF Standards for Accredited Courses
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6.1. Assessment strategy	<p><i>Standard 10 AQTF Standards for Accredited Courses</i></p> <p>All assessment will be consistent with the AQTF Essential Conditions and Standards for Initial/Continuing Registration Standards 1.2/1.5.</p> <p>Or</p> <p>Standard 1: Clauses 1.1 and 1.8 of the Standards for Registered Training Organisations (SRTOs) 2015</p> <p>See http://www.nssc.natese.gov.au/vet_standards/standards_for_rtos</p> <p>The following principles are a guide to assessment:</p> <ul style="list-style-type: none"> • assessment tasks/activities should be grounded in a relevant context and not be culturally biased • students should be assessed across a wide range of tasks integrated into practice, in order to increase reliability and validity of assessment. • instructions for assessment tasks should be clear, explicit and ordered • students must know what is expected and the criteria by which
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	<p>they will be judged</p> <ul style="list-style-type: none"> time allowed to complete a task should be reasonable and specified, and should allow for preparation and re-drafting as appropriate to the task assessment should be validated appropriate reference materials should be available to students during assessment, e.g. personal word lists, dictionaries, thesaurus, calculators. <p>Where appropriate, training providers are encouraged to take a holistic approach to assessment. Element 3 of the unit <i>VU21764 Plan prescribed burning for fuel, ecological and cultural resource management</i> should be based on a field site and involve at least one site visit.</p>
<p>6.2. Assessor competencies</p>	<p><i>Standard 12 AQTF Standards for Accredited Courses</i></p> <p>Assessor competencies for this course are consistent with the requirements of the AQTF Standards for Registration Standard 1.4 that require trainers and assessors to:</p> <ul style="list-style-type: none"> have the training and assessment competencies determined by the National Skills Standards Council (NSSC) or its successors, have the relevant vocational competencies at least to the level being delivered or assessed, and; continue to develop their vocational and training and assessment competencies to support continuous improvements in the delivery of RTO services. <p>See AQTF User guides to the Essential Conditions and Standards for Initial/Continuing Registration. or Standard 1: Clauses 1.13, 1.14, 1.15, 1.16 and 1.17 of the Standards for Registered Training Organisations (SRTOs) 2015</p>
<p>7. Delivery Standards 11 and 12 AQTF Standards for Accredited Courses</p>	
<p>7.1. Delivery modes</p>	<p><i>Standard 11 AQTF Standards for Accredited Courses</i></p> <p>Delivery strategies should actively involve the learner and learning should be experiential, relevant and age appropriate. Providers should be flexible in the way the training is delivered to ensure that they meet the needs of the client group.</p> <p>Delivery options, including grouping of learners and learning activities, should recognise the varying learning needs, educational backgrounds, preferred learning styles and constraints of the individual learner and the specific requirements of the unit.</p>
<p>7.2. Resources</p>	<p><i>Standard 12 AQTF Standards for Accredited Courses</i></p> <p>Resources include teachers/trainers who meet the Australian</p>



	<p>Quality Training Framework Essential Conditions and Standards for Initial / Continuing Registration Standard 1.4. or Standard 1: Clauses 1.13,1.14,1.15,1.16 and 1.17 of the Standards for Registered Training Organisations (SRTOs) 2015</p> <p>Participants must have access to:</p> <ul style="list-style-type: none"> • a site for a planned burn or an environment that reproduces normal work conditions of an operational agency with the responsibility to manage natural areas • equipment and technology normally used for fire management by an operational agency with the responsibility to manage natural areas e.g. computers, fire meters, fuel moisture meters, GPS data/mapping data and databases, fire table and chats, predictive modelling programs • documentation normally used in the operational agency workplace • personal protective clothing and equipment suitable for site assessment
<p>8. Pathways and articulation</p>	<p><i>Standard 8 AQTF Standards for Accredited Courses</i></p> <p>The unit of competency in this course gives individuals credit where the unit is used in other courses and qualifications.</p>
<p>9. Ongoing monitoring and evaluation</p>	<p><i>Standard 13 AQTF Standards for Accredited Courses</i></p> <p>Ongoing monitoring and evaluation of the course is the responsibility of the Primary Industries Curriculum Maintenance Manager throughout the period of accreditation.</p> <p>A formal review will take place once during the period of accreditation and will be informed by feedback from users of the curriculum and will consider at a minimum:</p> <ul style="list-style-type: none"> • any changes to meet emerging or developing needs of the agriculture industry • changes in legislation and regulations • development of any relevant national competency standards or accredited curricula <p>Any significant changes to the course resulting from course monitoring and evaluation procedures will be notified to the VRQA. Course maintenance and review procedures may also indicate that the course in total should be expired if a suitable qualification becomes available through the development, review or continuous improvement process of a Training Package.</p>



Plan prescribed burning for fuel, ecological and cultural resource management

Unit Descriptor

This unit covers the planning and monitoring of plans for prescribed burning in designated areas associated with fuel management and for the conservation of ecological and cultural assets.

This unit includes the identification of advantages and risks in burning for fuel management, identification of ecological and cultural assets/values and the planning, monitoring and evaluation of a prescribed burn.

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

Application of the Unit

This unit applies to individuals whose job role includes preparing and monitoring plans for prescribed burning for fuel management taking into consideration the ecological and cultural assets/values of the target area. Work will be undertaken without supervision. Responsibility for and organisation of the work of others involved in the program may be required.

ELEMENT

Elements describe the essential outcomes of a unit of competency.

1 Assess a designated site/area for prescribed burning

PERFORMANCE CRITERIA

Performance criteria describe the required performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge and/or the range statement. Assessment of performance is to be consistent with the evidence guide.

- 1.1 Accumulated fuel, cultural heritage and environmental assets are located, assessed and recorded according to organisation procedures
- 1.2 Reference areas, experimental plots, populations of flora and fauna that may be affected by fire are located, assessed and recorded according to organisation procedures
- 1.3 Potential impacts on ***natural and cultural heritage assets*** from prescribed burn preparation and burning activities are assessed and recorded according to organisation procedures
- 1.4 Potential ***risks*** and ***hazards*** are assessed in accordance with organisation procedures
- 1.5 The history of previous burns on the site including frequency, season, intensity and extent is identified
- 1.6 Legislation, regulations and codes of practice relating to prescribed burn preparation and burning activities are taken into account



- 1.7 The suitability of a site/area for fuel reduction using prescribed burning is assessed and alternative strategies are identified
- 2 Plan for prescribed burning**
- 2.1 Confirm selection of sites/areas targeted for prescribed burning is based on a site assessment and in accordance with organisational procedures
- 2.2 Objectives for fuel reduction, ecological and cultural heritage protection are established in accordance with organisational procedures
- 2.3 **Strategies and tactics** suitable for the area and consistent with the burn objectives are selected in accordance with organisational procedures
- 2.4 Consultation and ongoing liaison with **stakeholders** is conducted in accordance with organisational procedures
- 2.5 The plan takes in account occupational health and safety and the protection of **life, property, assets** and the **environment**
- 2.6 The required resources and the optimum timing to reduce risk are taken into account and are in accordance with organisational procedures
- 3 Conduct post burn monitoring and evaluation**
- 3.1 Post burn monitoring and evaluation activities are developed and **recorded** in accordance with organisational procedures
- 3.2 Outcomes of the prescribed burn are assessed against the established objectives for fuel management and protection of ecological and cultural heritage assets
- 3.3 Recommendations are developed based on information from monitoring and evaluation activities, are consistent with relevant legislation, regulations and codes of practice and are formulated in accordance with organisational obligations
- 3.4 Monitoring and evaluation findings are documented and reported in accordance with organisational procedures

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level, required for this unit

Required Skills

- consulting and communicating with stakeholders orally and in writing
- reading and interpretation of maps for fire management purposes
- measuring quantities and calculating areas for fire management purposes
- researching cultural heritage sites for fire management purposes
- researching cultural and environmental factors for a designated area including populations

- of flora and fauna for fire management purposes
- preparing plans for prescribed burning for cultural heritage sites and the protection of flora and fauna
- making recommendations for safe and effective burning activities
- identifying risks and hazards for prescribed burning
- recording and making recommendations for burning activities
- use of technology to assess wildfire hazards conditions

Required Knowledge

- wildfire hazards
- prescribed burning strategies
- basic wildfire behaviour
- organisational procedures and programs
- legislation relevant to wildfire hazard reduction, cultural heritage and the protection of flora and fauna
- effects of fire on vegetation, fauna and fuel accumulation
- effects of fire on areas and places of cultural significance
- resource requirements to conduct burning activities
- advantages and risks in burning for fuel management

Range Statement

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. **Bold italicised** wording in the Performance Criteria is detailed below.

Natural and cultural heritage assets may include:

- places and objects of aesthetic, historic, scientific, social or spiritual value
- assets on or suitable for inclusion on: the Victorian Heritage Register, Aboriginal Heritage Register, a local government heritage overlay
- places and objects valued by local communities as contributing to a sense of place

Risks may include:

- damage to life or property
- adverse impact on flora and fauna
- adverse impacts on cultural assets

Hazards may include:

- flammable vegetation
- flammable hazardous materials
- adjoining land use
- proximity to urban areas

Strategies and tactics may include:

- lighting patterns
- suppression resources and tactics
- predictive fire modelling programs

Stakeholders may include:

- local, state and federal government agencies
- adjacent land owners and/or managers
- community groups with specific interests

Life, property and assets may include:

- people on areas adjacent to the target area
- people permanently or temporarily in the target area
- people undertaking the burning operations
- smoke management
- property and assets adjacent to the target area
- commercial crops or other assets on the target area
- cultural sites, historical buildings, etc.

The environment may include:

- native flora and fauna
- rare, threatened and endangered species
- water quality
- soil conservation
- safe use of fire retardants and other chemical sprays
- smoke management

Records may include:

- lighting pattern used
- weather conditions experienced on the day
- behaviour of the burn
- post-burn briefing
- resources used
- responses to fire escapes

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment section in Section B of the accreditation submission.

Critical aspects for assessment and evidence required to assess competency in this unit

It is essential for this unit that competence be demonstrated by:

- identifying wildfire hazards and risks of wildfire impacts
- identifying ecological and cultural assets that may be affected by burning and preparation for burning activities
- developing and meeting objectives for prescribed burn strategies, tactics and outcomes
- minimising environmental impact
- minimising impact on cultural assets
- recognising and consulting with stakeholders

Context of and specific resources for assessment

Assessment for this unit of competency is to be largely practical in nature and will most appropriately be assessed in the workplace or simulated normal working conditions.

The candidate must also have access to the following resources:

- access to historical data, case studies
- access to reference areas, experimental plots, areas for prescribed for burning
- appropriate equipment, tools and resources

Method of assessment

Evidence should be gained through a range of methods to ensure valid and reliable assessment and consistence in performance.

Evidence should be gathered as part of the learning process where appropriate through an integrated assessment activity or through a combination of both.

For valid assessment, learners must have opportunities to participate in a range of exercises and other real and simulated practical and knowledge assessments that demonstrate the skills and knowledge for prescribed burning for fuel, ecological and cultural resource management.

Assessment methods could include:

- practical exercises, for example assessing the current prescribed burning practices and resources, identifying and recording of cultural assests, identifying populations of fauna and flora
- use of the technology and conducting a review of improvement gains through the use of current technology
- written and/or oral questioning to assess knowledge and understanding of cultural assets and values
- project to plan a prescribed burn
- written and/or oral questioning to assess learners ability to transfer skills and knowledge and problem solving abilities based on case studies from different geographical areas



