



Australian Government

FWPTMM5201 Assess product feasibility of designs

Release: 1

FWPTMM5201 Assess product feasibility of designs

Modification History

Release	Comment
1	Replaces equivalent unit FPITMM5201B Assess product feasibility of designs, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format.

Application

This unit of competency describes the outcomes required to systematically analyse, assess and determine the feasibility of designs for translation into commercially viable production. Work is completed in a forest and wood products factory setting.

The unit applies to Designer (Manufacturing and Engineered Wood Products), Production Manager (Timber Truss & Frame), Designer (Timber Truss and Frame)

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

Pre-requisite Unit

Nil

Unit Sector

Timber Manufactured Products

Timber Merchandising

Elements and Performance Criteria

<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.</i>
1. Analyse design objectives	1.1 Identify design purpose and investigate potential market for the product. 1.2 Analyse intended production materials and processes.
2. Determine design	2.1 Establish criteria for assessment of product material options.

assessment criteria	2.2 Establish criteria for assessment of product functionality. 2.3 Establish criteria for assessment of production process options considering impact of these on production operations. 2.4 Establish criteria for assessment of safety and potential liability issues. 2.5 Establish criteria for assessment of costs and marketability. 2.6 Determine weighting of scores for each criteria according to importance of issue.
3. Apply the assessment criteria	3.1 Select potential and actual products competing in the market place for comparative purposes. 3.2 Score and grade design against established criteria and record results. 3.3 Score and grade competing products against established criteria and record results. 3.4 Record overall assessment results.
4. Establish feasibility and options	4.1 Analyse assessment results for the design and competing products. 4.2 Reject designs which show poor assessment results and provide no potential for variation. 4.3 Identify designs which show poor assessment results but provide potential options for variation; refer to appropriate personnel. 4.4 Identify designs which satisfy criteria and indicate potential for success. 4.5 Conditionally endorse feasible designs, record conditions and refer to appropriate personnel. 4.6 Record assessment outcomes, maintain and process reports in line with organisational procedures.

Foundation Skills

This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.

Numeracy skills to:	- determine weighting of scores for particular assessment criteria - calculate the total score for the assessment through simple addition.
Reading skills to:	interpret unfamiliar design documents which range in complexity.

Writing skills to:	• develop and document qualitative and quantitative assessment criteria • clearly and accurately report on assessment outcomes • clearly represent rationale for rejecting designs and recommending others.
Planning and organising skills to:	• source, collect and organise data to inform design assessment • efficiently and logically manage operational logistics for the assessment process.
Self-management skills to:	• critically, rationally and logically analyse designs against assessment criteria.
Technology skills to:	• use a computer, keyboard and software to prepare assessment documents and reports.

Range of Conditions

Not Applicable

Unit Mapping Information

FPITMM5201B Assess product feasibility of designs

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPTMM5201 Assess product feasibility of designs

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1	Replaces equivalent unit FPITMM5201B Assess product feasibility of designs, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format. Assessment requirements now specify the performance and knowledge evidence, as well as assessment conditions for this unit of competency. These sections simplify and replace components used in the previous unit format, including Required Skills and Knowledge, Evidence Guide and Range Statement

Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit. If a specific volume or frequency is not stated below, then evidence must be provided that the following requirements have been performed on at least one occasion:

- assess and determine the feasibility of designs for one or more of the following product types:
 - pallets
 - crates
 - trellises
 - stairs
 - doors
 - windows
 - frames
 - beams
 - roof trusses
 - floor systems
 - wall frames.
- develop a set of assessment criteria and weighted scoring system to include details of:
 - functionality
 - safety
 - environmental impacts of product use

- environmental impacts of product production
- cost effectiveness of production
- marketability
- competitiveness with similar products on the market
- complete a detailed and accurate report for each assessment providing the outcomes.

Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- product feasibility issues, including:
 - environmental impacts of product use and potential to minimize
 - functionality – ease of use and application together with its relevance for desired purpose
 - safety – potential to cause danger to someone or something and potential for litigation against the enterprise
 - environmental impacts of product production and associated cost to the business
 - cost effectiveness of production
 - marketability - potential for sale of the product
 - competitiveness with similar products on the market
- sources of information on competitors' current products and price structure
- features, at an in-depth level of understanding, of production processes:
 - options for materials
 - construction methods and sequence
 - types of tools and equipment used for construction
- format, content and use of criteria for assessing feasibility of designs:
 - qualitative and quantitative assessment criteria
 - scoring systems
 - weighting of scores according to importance of issue
- organisational procedures for:
 - determining design assessment criteria and completing assessments
 - communication reporting lines
 - recording and reporting assessment outcomes.
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Assessment Conditions

The following resources must be made available:

- computers, keyboards and software programs used to produce assessment documents and reports on assessment outcomes
- comprehensive information about the design concept
- templates for:

- assessment documents
- reports on assessment outcomes
- relevant personnel for the purposes of communicating information
- organisational procedures for design assessment activities.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessor requirements

Assessors must:

- hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.
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