



**Australian Government**

# **Assessment Requirements for MEA341 Apply basic aircraft design characteristics**

**Release: 2**

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### **Modification History**

Release 2. Equivalent to MEA341 Apply basic aircraft design characteristics with amended prerequisite codes.

### **Performance Evidence**

Evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria under the specified conditions of assessment, and must include:

- identifying the effects of aerodynamic shape and types of flight controls on aircraft performance, stability and control
- identifying the influence of rotor design on rotary wing aircraft stability and control
- identifying the loads acting on aircraft structure, types of structure and related maintenance requirements
- identifying the types and designs of landing gear and their applications.

### **Knowledge Evidence**

Evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- theory of flight, including rotary wing
- loads acting on aircraft structures and structural fatigue, including rotary wing
- aircraft design characteristics, including rotary wing
- types of aircraft structure
- methods of aircraft construction
- materials of construction
- structural maintenance requirements
- use of non-destructive testing (NDT) in structural maintenance
- basic landing gear design characteristics
- use of ultra-high strength steels in landing gear design and related maintenance requirements.

### **Assessment Conditions**

- This unit may be assessed off the job in a training environment equipped to provide exposure to the relevant aircraft design characteristics and to theory of flight.

- The candidate must have access to all tools, equipment, materials and documentation required and must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials. The assessment environment should not disadvantage the candidate.
- Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.
- Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, teacher's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency.
- Assessors must satisfy the requirements of the National Vocational Education and Training Regulator (Australian Skills Quality Authority, or its successors).

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=ce216c9c-04d5-4b3b-9bcf-4e81d0950371>