

Specification of Competency Standards
for the Manufacturing Technology Industry
Unit of Competency

Functional Area - Product Design and Development

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| Title | Product drawings and geometric dimensioning & tolerancing |
| Code | 106390L3 |
| Range | This unit of competency is applicable to design and development departments of manufacturing technology industry. Practitioners should be familiar with geometric tolerance and graphics, and also capable to draw product plans. |
| Level | 3 |
| Credit | 3 (For Reference Only) |
| Competency | <p>Performance Requirements</p> <ol style="list-style-type: none"> 1. Understand geometric tolerance and graphics skills. <ul style="list-style-type: none"> • Understand relationship between marking workpiece size, suitable tolerance, fineness and components, such as sliding, fixing coordination • Understand the operations of all kinds of graphics tools 2. Carry out product graphics <ul style="list-style-type: none"> • Coordinate with product functions and needs, formulate product plans • According to product materials and production methods, formulate the size and tolerance which meet function and cost requirements, and also provide suitable descriptions of the drawings • Meet the requirements or advice of production department and quality department, amend drawings, so as to achieve the targets and standards of production quality • According to all design guidelines of tooling and products, use manual or computer to draw a detailed 2D drawing and 3D drawing of workpiece • Draw 2D and 3D assembly diagram and product diagram by hand drawing or computer 3. Professional handling of product graphics <ul style="list-style-type: none"> • Ensure the geometric dimension and tolerance of the drawings are accurate |
| Assessment Criteria | <p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> • Capable to meet the product functions and customers requirements, build detailed and correct product drawings, and formulate geometric dimension and tolerance |
| Remark | |