

# Technical Graphics

| LEVEL 3                         | 15<br>TCE CREDIT POINTS |
|---------------------------------|-------------------------|
| COURSE CODE                     | TEG315115               |
| COURSE SPAN                     | 2015 — 2019             |
| READING AND WRITING STANDARD    | NO                      |
| MATHEMATICS STANDARD            | NO                      |
| COMPUTERS AND INTERNET STANDARD | NO                      |

This course was delivered in 2017. Use [A-Z Courses](#) to find the current version (if available).

## The study of Technical Graphics provides an opportunity to appreciate the demands of design - both theoretical and practical - for technical innovation and progress

It is particularly relevant to a number of educational and vocational fields including engineering, industrial and product design, built environment design (architecture, landscape design and interior design), urban planning, surveying and spatial sciences and building paraprofessionals. These contexts require graphical problem solving, interpretation, communication and the shaping of practical solutions to existing and emerging technological challenges. Learners gain knowledge and skills in solving design problems through technical drawing using conventional and CADD systems. Learners use a design process in the major project to address a design brief which will provide rich insights into the industry standards for one of the numerous contexts in which technical graphics are vital for design, manufacturing and production.

### Course Description

Technical Graphics is an integral part of the design process. Learners study both traditional and contemporary drawing practice using a variety of techniques involving practical applications of plane and solid geometry. Hand drawings and CADD systems are used to communicate complex technical information. Learners communicate complex technical information, knowledge and ideas and solve detailed applied problems in a graphic form and develop an understanding of the relevance of technical graphics in industry and real world contexts.

### Rationale

The study of Technical Graphics provides an opportunity to appreciate the demands of design – both theoretical and practical – for technical innovation and progress. It is particularly relevant to a number of educational and vocational fields including engineering, industrial and product design, built environment design (architecture, landscape design and interior design), urban planning, surveying and spatial sciences and building paraprofessionals. These contexts require graphical problem solving, interpretation, communication and the shaping of practical solutions to existing and emerging technological challenges.

Learners gain knowledge and skills in solving design problems through technical drawing using conventional and CADD systems. Learners use a design process in the major project to address a design brief which will provide rich insights into the industry standards for one of the numerous contexts in which technical graphics are vital for design, manufacturing and production.

## Learning Outcomes

On successful completion of this course, learners will be able to:

1. use graphical literacy to understand the conventions and language of technical graphics to effectively read and interpret complex diagrams
2. apply the current and applicable conventions for drawing standards and presentation techniques
3. communicate complex conceptual and theoretical ideas and information in oral, written and graphic forms
4. solve complex design problems using geometrical knowledge and skills
5. interpret and transfer drawings
6. apply both hand and computer aided drafting and design (CADD)\* drawing skills and applications to solve problems logically and creatively
7. explain the roles and relationships between Computer Aided Drafting and Design (CADD) and Computer Aided Manufacturing (CAM) systems and processes
8. utilise the design process, principles and practice
9. create a design brief and complete the design process
10. explain relevance of technical graphics in industry contexts.

*\* In this course, the term Computer-Aided Drafting and Design (CADD) refers to the process where a drafter/designer uses technology to create drawings or models as part of the design process.*

## Pathways

Technical Graphics provides a strong basis for further vocational and/or tertiary study in areas such as: engineering; architecture; industrial design; and related areas in design, manufacturing and construction.

Technical Graphics Level 3 may lead to further studies at tertiary level, with courses such as Bachelor of Engineering, Environmental Design and Science or related technical trades. Vocational pathways include Diploma of Engineering Design in areas such as civil or industrial mechanical design, Certificate IV in Drafting, Diploma of Design (Architectural) and Diploma of Building Design.

## Resource Requirements

Learners require:

- access to T-squares, set squares, compasses, parallel rolling rulers, scale rulers and drawing pencils, pens and associated stationary
- access to computer technology, the internet and A3 printers.

Access to drawing boards is desirable.

## Course Size And Complexity

This course has a complexity level of 3.

At Level 3, the learner is expected to acquire a combination of theoretical and/or technical and factual knowledge and skills and use judgement when varying procedures to deal with unusual or unexpected aspects that may arise. Some skills in organising self and others are expected. Level 3 is a standard suitable to prepare learners for further study at tertiary level. VET competencies at this level are often those characteristic of an AQF Certificate III.

This course has a size value of 15.

## Course Requirements

This course has two Modules. Module 1 has 4 topics, Topic 2 (Geometry) has three sub-topics (Plane and Solid Geometry, and Structural Analysis).

### Module 1: Core Knowledge and Skills

1. First Principles
2. Geometry
  2. a – Plane Geometry
  2. b – Solid Geometry
  2. c – Structural Analysis
3. Drawing and Presentation Techniques
4. The Design Process and Principles.

### Module 2: The Design Folio

Learners must complete **all** Modules and their topics/sub-topics.

*Delivery sequence:* Module 1, Topic 1 (First Principles) will be delivered first, followed by Module 1, Topic 2.a (Plane Geometry) and Topic 2.b (Solid Geometry).

During delivery of Module 1, Topic 2.b work on Module 2 (The Design Folio) may be commenced. CADD-related skills and techniques from Module 1, Topic 3 (Drawing and Presentation Techniques) may be introduced during delivery of Module 1 as they link to learning tasks undertaken in Module 1 (e.g. for selected drawing exercises).

## Course Content

### MODULE 1: FOUNDATION SKILLS AND KNOWLEDGE

SUGGESTED 66% OF COURSE DELIVERY TIME FOR THIS MODULE. IT IS NOT EXPECTED THAT TOPICS WILL BE GIVEN EQUAL DELIVERY TIME

#### 1: FIRST PRINCIPLES

The first principles are the basic knowledge and skills sets needed prior to study of the basic concepts of Technical Graphics. These first principles are learnt prior to plane geometry concepts. For some learners, especially those who have successfully completed Technical Graphics – Foundation Level 2 or equivalent, this topic will serve as a revision of basic knowledge and skills previously acquired.

##### Basic Knowledge

*Introduction:* Graphical language is used to convey information, standards and conventions. How drawings can overcome language barriers.

*Equipment:* Types of pencils, pens, ink, erasers, compasses, protractors, templates, guides, flexi-curves, French curves, dividers, rulers, scale rulers, set squares, T-squares, drawing machines, and tables. How to use such equipment correctly and safely. Except for specific paper media-based tools, they are device independent.

*Paper:* Different types, sizes and thicknesses of paper.

##### Skills:

- definition of point, line, circle, arc, curve, line types of each of these
- correct way to hold a pencil or pen
- correct way to use a compass and dividers
- correct way to mount paper to drawing table
- draw borders and title blocks to correct set-out
- lettering
- drawing a straight line to a specified length
- notation of points
- bisection of line
- perpendicular from a point on line – construction of
- perpendicular from a point to a line – construction of
- line division
- angles by radius
- bisection of angles
- copying of angles
- construction of triangles, scalene, equilateral, isosceles
- inscribing a triangle
- circumscribing a triangle
- true length lines, horizontal planes and vertical planes.

#### 2: GEOMETRY

Learners will initially carry out a range of hand sketching and technical drawing exercises in this topic to develop conceptual knowledge in plane and solid geometry, as well as translating concepts and problems from 2D to 3D.

##### 2.a – Plane Geometry

- Geometric construction – line and angle bisection, construction of perpendiculars, reproduction of figures, construction of angles/triangles, inscribing/circumscribing circles
- Polygons – regular, constructed in given circles or on given side
- Conic curves – different methods of constructing the ellipse, parabola and hyperbola  
*Examples: roof design, ballistics, self-supporting archways in civil engineering and architecture, satellite dishes*
- Loci – helix, spiral, roulettes, involutes and curves generated by mechanisms  
*Examples: plotting the path of a moving point such as the opening of a garage door, shapes such as a helical stairway or Archimedean spiral ceilings*

- Simple cam design to include wedge, roller and flat followers on same axis  
*Examples: machines and automotive engines.*

## 2.b – Solid Geometry

- 3<sup>rd</sup> angle projection advanced drawings and recognition of 1<sup>st</sup> angle
- True lengths of lines inclined to either or both planes  
*Examples: engineering, architectural applications and sheet metalwork*
- Dihedral angle  
*Examples: roof construction, mining, aeronautical and nautical contexts*
- Advanced examples of the intersection of right solids, spheres and toruses  
*Examples: mining, construction or engineering contexts*
- Surface development of right and oblique solids, cones, cylinders, prisms and pyramids using parallel line, radial line and triangulation methods  
*Examples: engineering, sheet metalwork, steel fabrication and ducting contexts*
- Auxiliary views of planes and solids  
*Examples: engineering and architectural contexts*
- Advanced examples of true shapes of solids cut by horizontal, vertical and inclined planes  
*Examples: plumbing, air conditioning engineering, sheet metalwork, steel fabrication and ducting contexts*
- Inter-penetrations between solid objects  
*Examples: house extensions when the roof sections need to be joined or plumbing*
- Co-ordinate Geometry – points, lines and planes  
*Examples: geographical, navigational and geological contexts.*

## 2.c – Structural Analysis

- funicular diagrams
- vector diagrams
- Building Information Modelling (digital applications)
- awareness of finite element analysis (FEA)  
*Examples: geographical Applications include bridge stresses, calculation of loadings on beams or guy rope forces.*

## 3: DRAWING AND PRESENTATION TECHNIQUES

Learners will develop skills and techniques in the use of conventional and contemporary graphic techniques including the use of CADD systems. Learners will gain an understanding of the drawing and presentation conventions and practices within a range of industry areas.

Computer-Aided Drafting and Design (CADD) systems will be used to create drawings or models as part of the design process. These skills and knowledge transfer to Computer Aided Manufacture (CAM) involving properties of materials and manufacturing principles and processes. Digital fabrication provides a strong context in a senior secondary education environment. 3D printers and small CNC machines such as laser and vinyl cutters are examples of how CAM can complement CADD.

### *Standard Drawing Practice*

- current Australian Standard Drawing Practice (AS 1100, ISO standards for CADD) for architectural, engineering and digital drawings.

### *Freehand Sketching and Rendering*

- freehand sketching to support preparatory work and communication for initial design development.

### *Perspective drawing*

- one and two point.

### *Orthographic drawing*

- Orthogonal projections in 1<sup>st</sup> and 3<sup>rd</sup> angle including auxiliary views.

### *Pictorial drawings*

- isometric, oblique, perspectives, axonometric, planometric representation of ideas (freehand, notated graphics).

#### **4: DESIGN PROCESS AND PRINCIPLES**

A study of design process and principles including, but not limited to:

- situational analysis
- design brief
- research and investigation
- working drawings
- possible solutions
- preferred solution
- evaluation.

#### **MODULE 2 – THE DESIGN FOLIO**

SUGGESTED 33% OF DELIVERY TIME

##### **Task**

Learners are required to undertake a major inquiry in an area of interest demonstrating the design process and knowledge of the chosen industry or discipline. This process addresses the requirements outlined below and in the current TASC published external assessment guidelines for this course.

The folio requires a link with a relevant technical graphics industry or discipline context. Learners will be encouraged to undertake a problem-based design solution in liaison with an industry professional (e.g. an architect, engineer, surveyor, fabricator or manufacturer). The contacts that learners make with industry and professional bodies/people will be pre-approved and overseen by teachers. Learners will be required to contextualise their learning within a relevant industry or discipline when devising the design brief and undertaking the requirements of the Design Folio. Learners will convey their understanding of the conventions, drawing protocols, roles of team members and emerging trends within the industry or discipline area.

The study will be futures-oriented in that it will focus on the knowledge, understanding and skills required in the 21<sup>st</sup> century. It will recognise the changing nature of work in the context of global integration and international mobility, Australia's future in the region, technological innovation and increasing use of technology in society and work. Awareness of the roles of high value and leading-edge industry research and development (R&D) organisations are also developed through the study.

##### **Requirements**

For the chosen area of interest, learners will prepare a:

- design brief
- description of the evolution of the design process
- range of drawing and presentation techniques.

The folio will contain between 25% and 50% output from CADD systems.

##### **Possible areas of study**

- mechanical engineering
- civil engineering
- electrical/electronic engineering
- aerospace
- marine engineering
- marine architecture
- automotive
- landscape architecture
- domestic architecture
- interior design
- industrial architecture
- product design
- cartography
- surveying.

For further information and details see the current TASC published external assessment guidelines for this course found in the Supporting Documents below.

## Assessment

Criterion-based assessment is a form of outcomes assessment that identifies the extent of learner achievement at an appropriate end-point of study. Although assessment – as part of the learning program – is continuous, much of it is formative, and is done to help learners identify what they need to do to attain the maximum benefit from their study of the course. Therefore, assessment for summative reporting to TASC will focus on what both teacher and learner understand to reflect end-point achievement.

The standard of achievement each learner attains on each criterion is recorded as a rating 'A', 'B', or 'C', according to the outcomes specified in the standards section of the course.

A 't' notation must be used where a learner demonstrates any achievement against a criterion less than the standard specified for the 'C' rating.

A 'z' notation is to be used where a learner provides no evidence of achievement at all.

Providers offering this course must participate in quality assurance processes specified by TASC to ensure provider validity and comparability of standards across all awards. To learn more, see TASC's [quality assurance](#) processes and [assessment](#) information.

Internal assessment of all criteria will be made by the provider. Providers will report the learner's rating for each criterion to TASC.

TASC will supervise the external assessment of designated criteria which will be indicated by an asterisk (\*). The ratings obtained from the external assessments will be used in addition to internal ratings from the provider to determine the final award.

## Quality Assurance Process

The following processes will be facilitated by TASC to ensure there is:

- a match between the standards of achievement specified in the course and the skills and knowledge demonstrated by learners
- community confidence in the integrity and meaning of the qualification.

**Process** – TASC gives course providers feedback about any systematic differences in the relationship of their internal and external assessments and, where appropriate, seeks further evidence through audit and requires corrective action in the future.

## External Assessment Requirements

The external assessment for this course will comprise:

- a folio assessing criteria: 4, 5 & 7
- a written examination assessing criteria: 2 & 3.

For further information see the current external assessment specifications and guidelines for this course available in the Supporting Documents below.

## Criteria

The assessment for Technical Graphics Level 3 will be based on the degree to which the learner can:

1. use terms, concepts and conventions to communicate and interpret graphic ideas and information
2. apply geometric knowledge and skills in interpreting and transferring drawings\*
3. solve geometric problems\*
4. use standards and conventions in the production of sketches and drawings\*
5. present and communicate information\*
6. demonstrate time management, planning and negotiation skills
7. address a brief using the design process and research\*

\* = denotes criteria that are both internally and externally assessed



## Standards

### Criterion 1: use terms, concepts and conventions to communicate and interpret graphic ideas and information

The learner:

| Rating A   | Rating B   | Rating C   |
|--|--|--|
| uses appropriate terminology, design content and conventions to present design ideas and information graphically in a broad range of complex technical graphics contexts     | uses appropriate terminology, design content and conventions to present design ideas and information graphically in a range of technical graphics contexts | uses terminology, design content and conventions to present design ideas and information graphically in a limited range of technical graphics contexts |
| accurately uses a broad range of appropriate terminology, design content and conventions to discuss complex design ideas and information in oral, written and visual formats | uses appropriate terminology, design content and conventions to describe design ideas and information in oral, written and visual formats                  | uses terminology, design content and conventions to outline design ideas and information in oral, written and visual formats                           |
| defines, explains and accurately uses a broad range of relevant concepts and terms to convey appropriate meaning   | defines, describes and uses relevant concepts and terms to convey appropriate meaning  | defines and uses relevant concepts and terms to convey appropriate meaning   |
| accurately identifies, explains and interprets terms, conventions and concepts in complex drawings   | identifies, explains and interprets terms and conventions in complex drawings  | identifies and explains terms and conventions in complex drawings to support partial interpretation  |
| accurately uses a broad range of appropriate CADD/CAM terminology and conventions to graphically present design ideas and information.                                       | uses appropriate CADD/CAM terminology and conventions to graphically present design ideas and information.   | uses a range of terms and conventions when describing CADD, including its relationship to CAM.   |

### Criterion 2: apply geometric knowledge and skills in interpreting and transferring drawings

This criterion is both internally and externally assessed.

The Learner:

| Rating A  | Rating B   | Rating C  |
|---|--|---|
| produces accurate and efficient solutions to complex geometrical problems   | produces accurate solutions to complex geometrical problems  | produces solutions to complex geometrical problems. There may be some inaccuracies.                         |
| produces detailed and accurate geometrical drawings that are feasible solutions to complex design problems  | produces accurate geometrical drawings as solutions to complex design problems   | produces geometrical drawings that partially resolve complex design problems                                |
| evaluates the purpose of information presented in a written, verbal or graphic brief in terms of its design   | analyses the purpose of information presented in a written, verbal or graphic brief in terms of its design                                       | describes the purpose of information presented in a written, verbal or graphic brief in terms of its design |
| efficiently solves complex problems by applying appropriate plane and solid geometry concepts, and transferring knowledge and skills between related concepts | solves complex problems by applying a range of plane and solid geometry concepts, and transferring knowledge and skills between related concepts | partially resolves complex problems by applying a range of plane and solid geometry concepts                |
| evaluates design solutions.   | analyses design solutions.   | describes design solutions.   |

Describe: to recount, tell of/about, chronicle, comment on, given an account of characteristics or features.

Analyse: to examine, scrutinise, explore, review, consider in detail for the purpose of finding meaning or relationships, and identifying patterns, similarities and differences.

Evaluate: to assess, appraise, measure, judge, provide a detailed examination and substantiated judgement concerning the merit, significance or value of something.

### Criterion 3: solve geometric problems

This criterion is both internally and externally assessed.

The learner:

| Rating A  | Rating B   | Rating C   |
|---|--|--|
| analyses a problem, accurately identifies what is required and completes all steps to full resolution   | describes the nature of a problem, identifies what is required and undertakes steps towards a solution | identifies the nature of a problem and articulates basic steps towards a solution                      |
| uses CADD systems to produce and present accurate and logical solutions to complex geometrical problems | uses CADD systems to produce accurate and logical solutions to geometrical problems                    | identifies how CADD/CAM could be used in the process of solving design problems through geometric form |
| applies appropriate geometric principles and effective modelling practice to solve complex problems     | applies appropriate geometric principles and modelling practice to solve complex problems              | applies some geometric principles and modelling to solve problems                                      |
| produces accurate, effective and logical solutions to complex geometrical problems.                     | produces accurate and logical solutions to complex geometrical problems.                               | produces feasible solutions to simple geometrical problems.  |

### Criterion 4: use standards and conventions in the production of sketches and drawings

This criterion is both internally and externally assessed.

The learner:

| Rating A  | Rating B   | Rating C   |
|---|--|--|
| - in a range of contexts - produces accurate and detailed sketches and drawings representing complex objects. Relevant standards are accurately applied.  | - in at least two contexts* - produces accurate and detailed sketches and drawings representing complex objects. Relevant standards are applied. | - in at least two contexts* - produces drawings and sketches representing complex objects. The products resemble the objects in question and use relevant standards. |
| produces presentation drawings in which all relevant aspects of the Australian Drawing Standards and International CADD Standards are evident. Relevant standards are applied with a high degree of accuracy. | produces presentation drawings in which most relevant aspects of the Australian Drawing Standards and International CADD Standards are evident   | produces presentation drawings in which some relevant aspects of the Australian Drawing Standards and International CADD Standards are evident                       |
| accurately draws dimensional proportions and follows appropriate conventions for all dimensioning   | accurately draws dimensional proportions and follows appropriate conventions for most dimensioning   | draws dimensional proportions using dimensioning conventions. There may be some inaccuracies.  |
| accurately applies relevant standards to line work, borders and layout in presenting drawings.  | applies most relevant standards to line work, borders and layout in presenting drawings.   | applies some relevant standards to line work, borders and layout in presenting   |

|  |  |   |
|--|--|---|
|  |  | drawings. There may be some inaccuracies. |
|--|--|---|

\* E.g. Engineering and architectural contexts.

## Criterion 5: present and communicate information

This criterion is both internally and externally assessed.

The learner:

| Rating A  | Rating B   | Rating C  |
|---|--|---|
| clearly and accurately communicates complex information through drawing using appropriate presentation techniques                               | communicates complex information through drawing using appropriate presentation techniques   | communicates information through drawing using some appropriate presentation techniques   |
| creates presentation drawings in manual and CADD formats that accurately comply with all relevant conventions                                   | creates presentation drawings in manual and CADD formats that comply with relevant convention  | creates presentation drawings in both manual and CADD formats that comply with some relevant conventions  |
| evaluates impact on presentation drawings of digital technologies in industry settings  | analyses impact on presentation drawings of digital technologies in industry settings  | describes impact on presentation drawings of digital technologies in industry settings  |
| evaluates presentation techniques, conventions and the roles of professional and technical support personnel in an industry or discipline area. | analyses presentation techniques, conventions and the roles of professional and technical support personnel in an industry or discipline area. | describes presentation techniques, conventions and the roles of professional and technical support personnel in an industry or discipline area. |

Describe: to recount, tell of/about, chronicle, comment on, given a account of characteristics or features.

Analyse: to examine, scrutinise, explore, review, consider in detail for the purpose of finding meaning or relationships, and identifying patterns, similarities and differences.

Evaluate: to assess, appraise, measure, judge, provide a detailed examination and substantiated judgement concerning the merit, significance or value of something.

## Criterion 6: demonstrate time management, planning and negotiation skills

The learner uses negotiation, planning, and task and time management strategies.

The learner:

| Rating A   | Rating B   | Rating C  |
|--|--|---|
| identifies time, materials and equipment needed to complete a task, and employs a systematic and planned approach to their use | identifies time, materials and equipment needed to complete a task, and employs a planned approach to their use  | identifies time, materials and equipment needed to complete a task                            |
| identifies, proposes and negotiates complex goals for the project which are measurable, achievable and realistic               | proposes and negotiates complex goals for the project which are measurable, achievable and realistic             | negotiates goals for the construction projects which are measurable, achievable and realistic |
| evaluates, selects and uses planning tools and strategies to achieve objectives and manage activities within proposed times    | selects and uses planning tools and strategies to achieve objectives and manage activities within proposed times | uses planning tools to achieve objectives within proposed times                               |
|  |  |   |

|  |  |   |
|--|--|---|
| reflects – orally and in writing – on progress towards meeting goals and timelines, critically evaluates progress and plans effective future actions | reflects – orally and in writing – on progress towards meeting goals and timelines, analyses progress and plans future actions | reflects – orally and in writing – on progress towards meeting goals and timelines, and articulates some ways in which goals be met in the future |
| meets specified/negotiated timelines and addresses all required task characteristics* with a high degree of accuracy.                                | meets specified/ negotiated timelines and addresses all required task characteristics*.  | meets specified/negotiated timelines and addresses most aspects of required task characteristics*.  |

\* 'required task characteristics' may include: word limits; mode of response; and presentation requirements.

## Criterion 7: address a brief using the design process and research

This criterion is both internally and externally assessed.

The learner:

| Rating A  | Rating B   | Rating C   |
|---|--|--|
| describes a brief, evaluates its scope, limitations and parameters, and provides relevant supporting information  | describes a brief, analyses its scope, limitations and parameters, and provides supporting information   | describes a brief - its scope, limitations and parameters - and provides some supporting information   |
| progresses through design process in a systematic manner to address a brief and clearly documents the process used  | progresses through design process to address a brief and documents the process used  | applies elements of design process to address a brief and documents the process used   |
| critically analyses all aspects of preferred solution to brief in terms of design principles involved   | analyses preferred solution to brief in terms of design principles involved  | discusses solution to brief in terms of design principles involved   |
| produces solution a consistent with design brief and all specifications   | produces solution consistent with design brief   | produces solution partially consistent with design brief   |
| uses a wide range of relevant research methodologies and sources to support solution brief  | uses a range of research methodologies and sources to support solution to brief  | uses a limited range of research methodologies and sources to support solution to brief  |
| clearly identifies the information, images, ideas and words of others used in the learner's work  | clearly identifies the information, images, ideas and words of others used in the learner's work   | differentiates the information, images, ideas and words of others from the learner's own   |
| clearly identifies sources of the information, images, ideas and words that are not the learner's own. Referencing conventions and methodologies are followed with a high degree of accuracy. | clearly identifies sources of the information, images, ideas and words that are not the learner's own. Referencing conventions and methodologies are followed correctly. | identifies the sources of information, images, ideas and words that are not the learner's own. Referencing conventions and methodologies are generally followed correctly. |
| creates appropriate, well-structured reference lists/bibliographies.  | creates appropriate, structured reference lists/bibliographies.  | creates appropriate reference lists/bibliographies.  |

## Qualifications Available

Technical Graphics Level 3 (with the award of):

EXCEPTIONAL ACHIEVEMENT

HIGH ACHIEVEMENT

COMMENDABLE ACHIEVEMENT

SATISFACTORY ACHIEVEMENT

PRELIMINARY ACHIEVEMENT

## Award Requirements

The final award will be determined by the Office of Tasmanian Assessment, Standards and Certification from 12 ratings (7 from the internal assessment, 5 from the external assessment).

The minimum requirements for an award in Technical Graphics Level 3 are as follows:

EXCEPTIONAL ACHIEVEMENT (EA)

10 'A' ratings, 2 'B' ratings (4 'A' ratings, 1 'B' rating from external assessment)

HIGH ACHIEVEMENT (HA)

4 'A' ratings, 4 'B' ratings, 4 'C' ratings (3 'A' ratings, 2 'B' ratings from external assessment)

COMMENDABLE ACHIEVEMENT (CA)

6 'B' ratings, 5 'C' ratings (2 'B' ratings, 3 'C' ratings from external assessment)

SATISFACTORY ACHIEVEMENT (SA)

10 'C' ratings (3 'C' ratings from external assessment)

PRELIMINARY ACHIEVEMENT (PA)

5 'C' ratings.

A learner who otherwise achieves the ratings for a CA (Commendable Achievement) or SA (Satisfactory Achievement) award but who fails to show any evidence of achievement in one or more criteria ('z' notation) will be issued with a PA (Preliminary Achievement) award.

## Course Evaluation

The Department of Education's Curriculum Services will develop and regularly revise the curriculum. This evaluation will be informed by the experience of the course's implementation, delivery and assessment.

In addition, stakeholders may request Curriculum Services to review a particular aspect of an accredited course.

Requests for amendments to an accredited course will be forwarded by Curriculum Services to the Office of TASC for formal consideration.

Such requests for amendment will be considered in terms of the likely improvements to the outcomes for learners, possible consequences for delivery and assessment of the course, and alignment with Australian Curriculum materials.

A course is formally analysed prior to the expiry of its accreditation as part of the process to develop specifications to guide the development of any replacement course.

## Course Developer

The Department of Education acknowledges the significant leadership of Gordon Clark, Ken Laughlin, Shon McIntee and Kent Moore in the development of this course.

## Expectations Defined By National Standards

There are no statements of national standards relevant to this course.


















## Accreditation

The accreditation period for this course is from 1 January 2015 to 31 December 2019.

## Version History

Version 1 – Accredited on 8 April 2014 for use in 2015 to 2019. This course replaces Technical Graphics (TEG315110) that expired on 31 December 2014.

## Supporting documents including external assessment material

-  [TEG315115 Assessment Report 2016.pdf](#) (2024-01-11 09:38am AEDT)
-  [TEG315115 Assessment Report 2015.pdf](#) (2017-07-21 01:05pm AEST)
-  [TEG315115 Exam Paper 2015.pdf](#) (2017-07-21 01:05pm AEST)
-  [TEG315115 Exam Paper 2016.pdf](#) (2017-07-21 01:05pm AEST)
-  [TEG315110 Assessment Report 2012.pdf](#) (2017-07-26 04:39pm AEST)
-  [TEG315110 Assessment Report 2013.pdf](#) (2017-07-26 04:39pm AEST)
-  [TEG315110 Assessment Report 2014.pdf](#) (2017-07-26 04:39pm AEST)
-  [TEG315110 Exam Paper 2012.pdf](#) (2017-07-26 04:40pm AEST)
-  [TEG315110 Exam Paper 2013.pdf](#) (2017-07-26 04:40pm AEST)
-  [TEG315110 Exam Paper 2014.pdf](#) (2017-07-26 04:40pm AEST)
-  [TEG315115 External Assessment Specifications 2015-2019.pdf](#) (2017-08-18 08:56am AEST)
-  [TEG315115 Exam Paper 2017.pdf](#) (2017-11-21 04:05pm AEDT)
-  [TEG315115 Assessment Report 2017.pdf](#) (2018-03-02 09:52am AEDT)
-  [TEG315115 Design Folio Guidelines.pdf](#) (2018-05-03 03:39pm AEST)
-  [TEG315115 TASC Exam Paper 2018.pdf](#) (2018-11-22 12:41pm AEDT)
-  [TEG315115 - Assessment Panel Report 2018 and Solutions.pdf](#) (2019-04-02 10:23am AEDT)
-  [TEG315115 - Technical Graphics Exam 2019.pdf](#) (2019-11-27 02:38pm AEDT)