

CS75 CAD Technician

1. Job role

TCF sub-sector	Cross sector
Job role	CS75 CAD Technician
Job role description	Develops and modifies digital designs and technical specifications for textile and product manufacturing using computer-aided design (CAD) systems. In Australia's TCF manufacturing industry, the CAD Technician supports product development, sampling and production by translating design concepts into detailed digital files suitable for manufacturing processes such as weaving, knitting, printing and tufting. The role works closely with designers, product development teams and production staff to ensure designs are accurate, manufacturable and aligned with customer and technical requirements in a highly digitised production environment.
Performance expectations	- Producing accurate and detailed CAD designs and technical files - Ensuring designs meet manufacturing specifications - Supporting product development and sampling processes - Maintaining design consistency and version control - Minimising design errors and rework - Collaborating effectively with design and production teams - Managing digital files and documentation - Following organisational and quality procedures
Specialisation	Textile pattern design, carpet CAD systems, digital printing files, product specification development, 3D visualisation tools
Application in other TCF sectors	- Apparel and fashion design - Industrial textile production - Automotive and interior design - Product and industrial design - Digital manufacturing environments

2. Key tasks and critical work functions

Key tasks	- Creating and modifying CAD designs and patterns - Preparing technical specifications for production - Converting design concepts into digital files - Maintaining design libraries and version control - Collaborating with designers and production teams - Supporting sampling and prototyping processes - Ensuring compatibility with manufacturing systems - Updating designs based on feedback and testing
Critical work functions	- Ensuring accuracy and manufacturability of designs - Maintaining consistency across product lines - Supporting efficient product development cycles

	• Preventing design-related production issues • Enabling seamless integration with production systems • Supporting innovation and product differentiation • Maintaining digital asset integrity and traceability
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3. Technical skills

CAD software operation	Using CAD tools for textile and product design
Pattern development	Creating repeat patterns and layouts
Technical specification development	Producing detailed product specifications
File management	Organising and maintaining digital design files
Design for manufacture	Ensuring designs are production-ready
Software integration	Working with CAD linked to production systems
Visualisation tools	Using 2D/3D rendering tools
Documentation	Maintaining accurate design records

4. Generic Skills

Attention to detail	Ensuring precision in design work
Creativity	Supporting design development and innovation
Problem solving	Resolving design and production issues
Communication	Working with designers and production teams
Time management	Meeting deadlines for design deliverables
Teamwork	Collaborating across functions
Adaptability	Responding to changing design requirements

5. Emerging skills

Emerging skills	• 3D modelling and digital prototyping • Integration with automated production systems • AI-assisted design tools • Advanced textile simulation software • Digital twin technology • Sustainable design and material optimisation
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6. VET Qualifications and Skill Sets

Entry-level preparation	Any of or equivalent to: • MST30222 Certificate III in Manufactured Textile Products • MST40316 Certificate IV in Custom-Made Footwear • MST50122 Diploma of Apparel, Fashion and Textiles • Certificate IV in Textile Design and Technology
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Advanced development	MST60122 Advanced Diploma of Apparel, Fashion and Textiles or equivalent or bachelor's degree in design, textile technology or product development
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7. Job progression

Possible job progression	Design Assistant → CAD Technician → Senior CAD Technician → Product Development Technologist → Design or Development Manager
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8. Classification

Australian Qualifications Framework	Level 3-5
Australian Bureau of Statistics (ABS) Skill Levels	Skill Level 3
Open Source Classification of Occupations for Australia (OSCA)	CAD Technician / Design Draftsperson - Manufacturing



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