

SSAPP07 Digital Patternmaker

Disclaimer

These Occupational Frameworks and Skill Profiles have been developed as workforce planning, occupational mapping and skills reference resources for the Australian textile, clothing and footwear (TCF) industry. They are intended to describe the typical functions, responsibilities, skills and capabilities associated with occupations across the industry.

These documents are not intended to replace or override industrial instruments or employment arrangements, including awards, enterprise agreements, employment contracts, position descriptions, classification structures, licensing or regulatory requirements, or other statutory obligations. Where differences arise, the relevant industrial, legislative or regulatory requirements take precedence. The Skill Profiles should be used as complementary reference documents to support workforce planning, career development, training and skills recognition.

1. Job role

TCF sub-sector	Apparel
Functional area	Product Design and Development
Job role	SSAPP07 Digital Patternmaker
Job role description	Creates and manages digital garment patterns using specialised CAD patternmaking software (e.g. Gerber AccuMark, Optitex, CLO 3D and similar systems) as the primary pattern development environment rather than traditional paper-based methods. The Digital Patternmaker develops master blocks, creates and engineers garment patterns from design specifications, and produces accurate production-ready digital patterns that support garment fit, construction and manufacturability. The role applies patternmaking principles, garment construction knowledge and anthropometric understanding to develop patterns that accurately reflect design intent and production requirements. Digital patterns are prepared for grading, marker making, 3D virtual prototyping and manufacturing, enabling improved precision, faster product development, reduced sampling and more sustainable production through virtual evaluation of garment fit and fabric behaviour. The Digital Patternmaker works closely with designers, technical designers, product developers, 3D garment specialists and manufacturing partners to ensure patterns meet quality, fit and production standards.
Performance expectations	• Develop master blocks and production-ready digital garment patterns using CAD patternmaking software. • Create digital patterns from design specifications and technical requirements. • Apply patternmaking principles, garment construction knowledge and anthropometric understanding. • Ensure digital patterns achieve required fit, construction accuracy and manufacturability. • Prepare digital patterns for grading, marker making, 3D virtual prototyping and production.

	• Collaborate with designers, technical designers, product developers and manufacturing partners. • Maintain digital pattern libraries, revision control and technical documentation. • Ensure compatibility with digital manufacturing and automated cutting systems.
Specialisation	Digital garment pattern engineering using CAD patternmaking technologies.
Application in other TCF sectors	• Digital footwear pattern engineering. • Technical textile product pattern development. • Uniform and workwear garment development. • Outdoor and protective clothing product engineering. • Sewn product manufacturing including bags and accessories.

2. Key tasks and critical work functions

Key tasks	• Develop master blocks and digital garment patterns from design specifications. • Engineer production-ready patterns using CAD patternmaking software. • Refine digital patterns following fit reviews and technical evaluations. • Prepare digital pattern files for grading, marker making and 3D virtual prototyping. • Maintain digital pattern libraries and revision control. • Support sample development with accurate digital pattern outputs. • Collaborate with designers, technical designers and product developers. • Ensure compatibility with digital manufacturing and automated cutting systems.
Critical work functions	• Ensuring digital patterns accurately represent garment design, fit and construction. • Applying pattern engineering principles to support manufacturability. • Maintaining precision and consistency across digital pattern files. • Supporting efficient digital product development workflows. • Maintaining organised digital pattern libraries and version control. • Supporting integration with digital manufacturing technologies.

3. Technical skills

CAD patternmaking systems	Use specialised CAD patternmaking software such as Gerber AccuMark, Optitex, CLO 3D or similar to develop production-ready garment patterns.
Digital pattern editing	Create, engineer and modify digital garment patterns within CAD environments.
Garment construction knowledge	Apply garment construction principles to develop accurate, manufacturable patterns.

Pattern digitising	Develop master blocks and foundational pattern blocks in digital environments.
Fit analysis	Evaluate digital patterns for fit, proportion and garment balance using virtual and physical assessment methods.
Marker preparation awareness	Prepare digital patterns for grading, marker making and efficient fabric utilisation.
Digital file management	Maintain organised digital pattern libraries, revision control and technical documentation.
Integration with PLM systems	Integrate digital pattern files with product lifecycle management systems and digital product development workflows.

4. Generic Skills

Attention to detail	Ensure precision in digital pattern measurements.
Problem solving	Resolve pattern issues during development.
Communication	Explain technical pattern changes to development teams.
Collaboration	Work with designers, developers and sample machinists.
Organisation	Maintain structured digital file management systems.
Time management	Meet product development deadlines.

5. Emerging skills

Emerging skills	• 3D garment simulation and digital fit validation. • Integration with automated cutting technologies. • Cloud-based digital pattern collaboration. • Digital twin garment development systems. • Advanced digital pattern grading technologies.
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6. VET Qualifications and Skill Sets

Entry-level preparation	MST50122 Diploma of Apparel, Fashion and Textiles or equivalent
Advanced development	MST60122 Advanced Diploma of Apparel, Fashion and Textiles or equivalent

7. Job progression

Possible job progression	Patternmaking Assistant → Digital Patternmaker → Senior Digital Patternmaker → Technical Design Manager
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8. Classification

Australian Qualifications Framework	AQF Level 5-6
Australian Bureau of Statistics (ABS) Skill Levels	Skill Level 3 - Patternmaker
Open Source Classification of Occupations for Australia (OSCA)	Digital Patternmaker - Apparel



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