

SSAPP21 Research and Development Coordinator

1. Job role

TCF sub-sector	Apparel
Functional area	Product Design and Development
Job role	SSAPP22 Sample Machinist / Prototype Sewer
Job role description	Constructs prototype and development samples of garments from patterns and technical specifications. The Sample Machinist / Prototype Sewer produces the first physical versions of apparel designs used for fit evaluation, design review and production approval. The role works closely with designers, patternmakers, product developers and technical designers to test garment construction, identify technical issues and refine product specifications.
Performance expectations	- Construct garment prototypes from patterns and technical packs - Interpret pattern pieces and garment construction instructions - Operate industrial sewing machines and specialised equipment - Identify construction issues and suggest improvements - Support fit sessions by producing accurate development samples - Collaborate with designers and technical staff during development - Maintain high standards of garment quality and workmanship - Document sample changes and construction notes
Specialisation	Prototype garment construction and sample development for apparel products.
Application in other TCF sectors	- Footwear prototype assembly and development - Technical textile product prototyping - Uniform and workwear sample development - Outdoor and protective clothing development - Sewn product industries including bags and accessories

2. Key tasks and critical work functions

Key tasks	- Interpret garment patterns and construction instructions - Prepare and assemble garment components - Operate industrial sewing machines and equipment - Construct prototype garments for development review - Identify construction issues during sample production - Collaborate with patternmakers and technical designers - Modify samples following design and fit feedback
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	• Maintain accurate sample construction documentation
Critical work functions	• Ensuring development samples accurately reflect garment designs • Supporting fit evaluation and product refinement • Identifying construction challenges during early development • Maintaining high quality prototype garment construction • Supporting efficient product development cycles • Ensuring garment samples are suitable for evaluation and approval

3. Technical skills

Garment assembly	Construct garments using industrial sewing equipment.
Industrial sewing machines	Operate lockstitch, overlock and specialised machines.
Garment construction methods	Apply appropriate sewing techniques for garment types.
Pattern interpretation	Read and interpret pattern pieces and construction instructions.
Fabric handling	Work with different fabrics and materials.
Sample modification	Adjust garment samples following technical feedback.
Quality inspection	Evaluate garment construction and quality of work.
Development documentation	Record construction notes and sample changes.

4. Generic Skills

Attention to detail	Ensure precision in garment construction.
Problem solving	Identify construction issues during sampling.
Communication	Discuss technical issues with development teams.
Collaboration	Work with designers, patternmakers and technicians.
Organisation	Manage sample materials and development garments.
Time management	Produce development samples within tight timelines.

5. Emerging skills

Emerging skills	• Integration with digital product development systems • Working from 3D garment simulation outputs • Advanced technical garment construction techniques • Sustainable sample development and material use • Digital communication with offshore development teams
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6. VET Qualifications and Skill Sets

Entry-level preparation	MSTSS00017 Sample Machining Skill Set or equivalent
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Advanced development	MST31022 Certificate III in Apparel, Fashion and Textiles or equivalent
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7. Job progression

Possible job progression	Sewing Machinist → Sample Machinist → Senior Sample Machinist → Sample Room Manager
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8. Classification

Australian Qualifications Framework	AQF Level 3
Australian Bureau of Statistics (ABS) Skill Levels	Skill Level 3 - Sewing Machinist
Open Source Classification of Occupations for Australia (OSCA)	Sample Machinist - Apparel



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