

CREATIVE ARTS AND FASHION

# Fashion Technology



## Technical Description

WorldSkills International, by a resolution of the Competitions Committee and in accordance with the Constitution, the Standing Orders, and the Competition Rules, has adopted the following minimum requirements for this skill for the WorldSkills Competition.

The Technical Description consists of the following:

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Stefan Praschl  
Board member – Competitions



Michael Fung  
Board member – Competitions

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# 1 Introduction

## 1.1 Name and description of the skill competition

### 1.1.1 The name of the skill competition is

Fashion Technology

### 1.1.2 Description of the associated work role(s) or occupation(s).

The Fashion Technology practitioner creates garments. The technical skills involved include design, pattern construction, cutting, and garment manufacture and finishing.

The practitioner may work in one of several sectors but often they are self-employed and work on commissioned projects or in the retail manufacturing sector or in sampling garments for production. As such they need to have business acumen and strong interpersonal skills when dealing with clients. Excellent customer care and selling skills are important. As some work is often commissioned for important events, the practitioner must understand the needs of the client and be able to offer appropriate expert advice whilst interpreting the vision for the finished project. Customer briefs must be clearly understood and followed accurately.

Fabrics are often expensive, delicate, and easily damaged if handled incorrectly. Given this, the practitioner must be respectful of the raw materials with which they work and apply extensive knowledge of effective sourcing, purchasing, handling, use, and storage of all materials. Sustainability, ethics and budgets are all serious considerations when sourcing materials and selecting sub-contractors.

The design of a garment requires innovation, creativity, artistic talent, and design skills which incorporate aesthetics as well as function and other design practicalities. The practitioner must apply the rules and theory of composition including design elements and principles as well as excellent construction technique. They are often creative and artistic, with a good eye for design and the ability to create pleasing and functional garments, suitable for their purpose. In addition, a thorough knowledge and understanding of specialist equipment and its use is essential. Another requirement is a high level of technical knowledge in patternmaking and construction techniques. Different fabrics will have in various ways regarding design, as well as react in various ways to the manufacturing process and these characteristics must be considered throughout the design, preparation, and production process.

There is a wide range of practice in the fashion sector. Some practitioners produce small ranges for retail outlets or high-class fashion houses or prepare bespoke garments ordered by individual clients. At the other end of the professional spectrum, the practitioner may work in an industrial setting, producing prototypes for mass production. Practice also varies across the world. The fashion industry is truly global: for example, a garment may be designed and prototyped in one country and sub-contracted for manufacture in another.

Wherever employed, it is essential that the practitioner is aware of current and emerging fashions and trends in the fashion industry. Equally important is an awareness of new developments in fabrics and textiles as well as machinery and equipment. Significant damage can be done to a business and its reputation if fashion trends are misread.

### 1.1.3 Number of Competitors per team

Fashion Technology is a single Competitor skill competition.

### 1.1.4 Age limit of Competitors

The Competitors must not be older than 22 years in the year of the Competition.

## 1.2 The relevance and significance of this document

This document contains information about the standards required to compete in this skill competition, and the assessment principles, methods and procedures that govern the competition.

Every Expert and Competitor must know and understand this Technical Description.

In the event of any conflict within the different languages of the Technical Descriptions, the English version takes precedence.

## 1.3 Associated documents

Since this Technical Description contains only skill-specific information it must be used in association with the following:

- WSI – Code of Ethics and Conduct
- WSI – Competition Rules
- WSI – WorldSkills Occupational Standards framework
- WSI – WorldSkills Assessment Strategy
- WSI online resources as indicated in this document
- WorldSkills Health, Safety, and Environment Policy and Regulations.

## 2 The WorldSkills Occupational Standards (WSOS)

### 2.1 General notes on the WSOS

The WSOS specifies the knowledge, understanding, and specific skills that underpin international best practice in technical and vocational performance. It should reflect a shared global understanding of what the associated work role(s) or occupation(s) represent for industry and business ([www.worldskills.org/WSOS](http://www.worldskills.org/WSOS)).

The skill competition is intended to reflect international best practice as described by the WSOS, and to the extent that it is able to. The Standard is therefore a guide to the required training and preparation for the skill competition.

In the skill competition the assessment of knowledge and understanding will take place through the assessment of performance. There will only be separate tests of knowledge and understanding where there is an overwhelming reason for these.

The Standard is divided into distinct sections with headings and reference numbers added.

Each section is assigned a percentage of the total marks to indicate its relative importance within the Standards. This is often referred to as the “weighting”. The sum of all the percentage marks is 100. The weightings determine the distribution of marks within the Marking Scheme.

Through the Test Project, the Marking Scheme will assess only those skills that are set out in the Standards Specification. They will reflect the Standards as comprehensively as possible within the constraints of the skill competition.

The Marking Scheme will follow the allocation of marks within the Standards to the extent practically possible. A variation of up to five percent is allowed, provided that this does not distort the weightings assigned by the Standards.

## 2.2 WorldSkills Occupational Standards

Section	Relative importance (%)
<b>1 Work organization and management</b>	<b>6</b>

The individual needs to know and understand:

- Materials/fabrics, their characteristics, properties, and uses
- The fashion industry processes across the world
- Processes for mass produced, small collection, bespoke, and couture fashion
- Industry jargon and terminology
- That specialist areas and sectors exist within the industry including knitwear, menswear, children, and infants' clothing
- The need for marketing and good business practice
- The importance of continuous professional development
- Health and safety regulations and best practice
- The importance of maintaining a clean and organized workplace
- The importance of effective work-planning, organization, and deadlines
- The importance of accuracy and care when preparing fabrics for production
- The range, uses and care of specialist tools and equipment used in the fashion industry
- Issues regarding ethics and sustainability regarding the purchase, production, and sale of fashion items
- How to assess for quality assurance at all stages of production

The individual shall be able to:

- Proactively develop own knowledge and skills
- Demonstrate an awareness of current trends and fashions in clothing design, accessories, colours, fabrics, etc.
- Take account of the properties of different fabrics including the limitations of certain fabrics/fibres
- Fully comply with and promote health and safety practices in the workplace to maintain a safe and healthy working environment
- Use all equipment safely and according to manufacturers' instructions
- Use and care for all specialist tools and equipment used in the fashion industry
- Select the correct tool or piece of equipment for each task and design
- Plan and prioritize work to maximize efficiency in the workplace and to meet deadlines
- Work cleanly and safely in all work areas so as to protect materials and finished products throughout
- Keep all work areas clean to facilitate efficiency and protect materials and tools
- Source support for business development
- Purchase materials and fabrics cost effectively with due consideration of sustainability and ethics as well as budgets
- Amend any areas of the process or product that do not meet quality control standards

Section	Relative importance (%)
<b>2 Communications and interpersonal skills</b>	<b>5</b>

The individual needs to know and understand:

- The importance of tact, discretion, diplomacy, and confidentiality when meeting with clients
- How to communicate effectively with clients to understand requirements, including design briefs
- How to communicate effectively with other industry professionals including design team members, ordering materials, sub-contracting work or dealing with suppliers
- How to appropriately handle a client in a measuring or fitting situation
- How to communicate effectively including presentation and sales skills

The individual shall be able to:

- Communicate effectively with both internal and external clients and show a good understanding of technical and industry specific terms
- Communicate clearly with clients to understand their specific needs and design requirements
- Act with confidentiality, discretion, and tact when working with clients
- Measure or fit a client for garments with care and tact working with them to make sure client needs and expectations are met
- Provide expert advice and guidance to clients to enable them to make informed decisions about purchases or production requirements
- Seek expert advice and guidance from other industry professionals to enable informed decisions about purchases or production requirements
- Provide expert and tactful guidance on styles, colours, and fabrics that will suit the need of the client and be appropriate for specific designs
- Provide appropriate advice and guidance to a client on the after care of the garment
- Present ideas, designs, vision, and production solutions to both internal and external clients

<b>3 Problem solving, innovation, and creativity</b>	<b>8</b>
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The individual needs to know and understand:

- The importance of both individuality and conformity to all areas of the fashion industry
- Basic machine care, fault finding, and resolution
- Creativity and its relevance and importance to the fashion industry
- All technical aspects of the production process
- Fabric properties and characteristics
- The purposes, properties, and characteristics of specialty fabrics
- The limitations of the design and production process, and how to anticipate and address technical problems which may arise

Section	Relative importance (%)
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The individual shall be able to:

- Demonstrate innovation and creativity in design
- Think creatively to devise innovative solutions
- Use creative solutions to resolve design and/or production challenges
- Alter garments to provide a better or custom fit, to update or to make garments more appropriate
- Anticipate design or construction issues relating to fabric properties including the properties of speciality fabrics and seek to use appropriate cutting and construction techniques (including pressing)
- Resolve production issues in cutting and construction relating to availability of materials (or quantities), design, and/or construction techniques and cost
- Critically judge the quality of the garment and finish and proactively seek resolutions to any imperfections both during and after the production process
- Resolve basic machine issues such as broken needles

<b>4</b>	<b>Fashion design</b>	<b>13</b>
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The individual needs to know and understand:

- The design elements and principles
- The range of fabrics and materials available to the fashion designer, their characteristics, uses and care
- Developments in new and speciality fabrics, and their implications for fashion and clothing
- Current fashions, trends and themes relating to materials and fabrics, colour and style
- The impact of culture and tradition in fashion design
- The range and type of materials that can be used as part of a fashion garment design (both outside and inside the garment)
- The co-ordination of colours, styles, materials/fabrics, accessories and themes
- The range of styles and cuts that are common in garment making, the associated terminology and how they are represented in sketches or on prototype designs
- The impact of body shape and size on the fit and appearance of a fashion garment
- Global influences on fashion design and how traditions and national characteristics impact design
- The bearing of the production process, and its costs, on opportunities and constraints for design
- How to communicate design concepts and ideas to potential clients or industry professionals
- The technical elements of garment construction and how they impact production in reference to materials, function, wearability, and costings

Section	Relative importance (%)
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The individual shall be able to:

- Research fashion trends and apply these appropriately to designs
- Direct the design to the target market or individual when designing fashion items
- Illustrate garment designs showing technical details
- Create theme/trend boards and illustrations to communicate ideas, concepts and visions
- Identify different types of fabric and select suitable fabrics for particular uses
- Take account of the properties of selected speciality fabrics within the design, development and production process
- Apply knowledge of basic cuts and styles to inform designs but not to restrict creativity and innovation
- Select appropriate fabrics to different fashion designs
- Select and use different notions such as zips, buttons, shoulder pads as well as trims like lace, beads, and ribbons
- Apply different embellishments and accessories to the design
- Co-ordinate colours, styles, materials/fabrics, and accessories to produce high quality design
- Provide professional and tactful guidance on styles, colours, and fabrics that will suit the need of the client
- Use artistic ability, creativity, and innovation to design a full variety of garments for all manner of target markets
- Create designs following a theme or design brief
- Alter and adapt designs to meet clients' needs and to make the design relevant to the brief
- Modify ready-made garments to create new designs

<b>5</b>	<b>Technical drawing</b>	<b>8</b>
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The individual needs to know and understand:

- How to both interpret and create specialist technical drawings
- Specialist industry-related terminology and symbols
- The use of IT and specialist software to produce images and designs

Section	Relative importance (%)
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The individual shall be able to:

- Communicate effectively with clients
- Understand specific requirements when working with internal and external clients
- Provide professional advice and guidance to internal and external clients to enable them to make informed decisions about fabrics, design, production and costings
- Create specialist technical drawings using industry recognized terminology and symbols that effectively convey necessary design details and vision
- Present ideas, designs, vision, and production solutions to client
- Read and interpret both technical drawings and fashion drawings or photos
- Prepare accurate line/flat drawings by hand, showing technical design elements
- Use computers and specialist software to create CAD 2D and 3D images
- Clearly label drawings and images
- Prepare clear, logical, sequential, and accurate written and diagrammatical instructions that convey all necessary information in readiness for production assembly and the manufacturing process (e.g. specification sheets)

<b>6</b>	<b>Pattern construction and draping</b>	<b>22</b>
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The individual needs to know and understand:

- The construction of garments using 2D flat patterns or 3D draping
- The process to create 2D patterns for various garments using blocks or slopers or drafting from measurements
- How to use specialist patternmaking equipment
- The use of IT specialist software to produce patterns
- Basic grading of patterns to other sizes
- The use of dress forms in constructing garments or testing patterns
- The requirements of different designs and how to use the most appropriate cut or patternmaking principle
- How various fabrics react to different styles or production techniques
- How to mark fabrics and the importance of accuracy
- How various styles function with regard to fit and easing
- How to utilize patternmaking

Section	Relative importance (%)
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The individual shall be able to:

- Create/develop or alter patterns for various types of garments, such as tailored jackets, dresses, skirts, or trousers
- Drape on dress forms for various types of garments, such as tops, dresses, skirts, or trousers
- Select the best method of construction appropriate to different fabrics, designs and markets
- Prepare calico/muslin or toile garments or parts of garments to prototype/test patterns
- Transfer draped 3D patterns to paper or pattern board
- Measure and mark accurately
- Choose appropriate linings and fusings for fabric and design requirements and develop patterns accordingly
- Fit garments to specified sizes
- Prepare patterns for cutting with appropriate seam allowances and grainlines, darts etc.
- Label patterns with clear information regarding size, style, cutting, etc

<b>7</b>	<b>Cutting, sewing, and finishing techniques</b>	<b>38</b>
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The individual needs to know and understand:

- The importance of accuracy when cutting fabrics in order to minimize wastage and to optimize the finished garment
- Pattern preparation and correct layout and marking of patterns on fabric
- The use of cutting tools both manual and electric
- The machinery and tools used for garment production
- The maintenance and use of industrial machines
- Garment construction processes/techniques
- The industry terms for different techniques and finishes
- Different types of stitching and finishing and their appropriate applications
- Various notions/trims and their uses such as threads, zips, piping, fastenings, etc.
- The properties of different fabrics and how to handle them including when cutting, sewing, and pressing

The individual shall be able to:

- Accurately measure fabrics according to the pattern
- Correctly prepare and mark a layout to optimize fabric utilization and follow pattern instructions
- Cut fabrics accurately using the most appropriate tool or equipment
- Use various types of industrial equipment used in the fashion industry, such as sewing machines, overlocking machines, irons, and a fusing press
- Select the appropriate tool or equipment for the task
- Use all machinery safely and in accordance with the manufacturer's instructions
- Conduct trials to ensure that the machine settings are appropriate for fabrics being used and the application

Section	Relative importance (%)
<ul style="list-style-type: none"> <li>• Apply fusing appropriately and effectively to different parts of the design</li> <li>• Construct and apply facings, interfacing, interlining, and lining appropriately</li> <li>• Handle and care for fabrics to ensure that they are not damaged and remain in good condition</li> <li>• Sew accurately by machine various types of garments or parts of garments</li> <li>• Use a variety of different stitches and finishes on garments or parts of garments according to the specification sheet, technical drawing, or pattern</li> <li>• Finish fashion garments professionally</li> <li>• Finish parts of garments with hand sewing</li> <li>• Proficiently execute specialist sewing skills and techniques</li> <li>• Press garments effectively both during and at the end of production</li> <li>• Present finished garments professionally</li> <li>• Resolve any issues of quality control to ensure a quality product</li> </ul>	
<b>Total</b>	<b>100</b>

## 3 The Assessment Strategy and Specification

### 3.1 General guidance

Assessment is governed by the WorldSkills Assessment Strategy. The Strategy establishes the principles and techniques to which WorldSkills assessment and marking must conform.

Expert assessment practice lies at the heart of the WorldSkills Competition. For this reason, it is the subject of continuing professional development and scrutiny. The growth of expertise in assessment will inform the future use and direction of the main assessment instruments used by the WorldSkills Competition: the Marking Scheme, Test Project, and Competition Information System (CIS).

Assessment at the WorldSkills Competition falls into two broad types: measurement and judgement. For both types of assessment, the use of explicit benchmarks against which to assess each Aspect is essential to guarantee quality.

The Marking Scheme must follow the weightings within the Standards. The Test Project is the assessment vehicle for the skill competition, and therefore also follows the Standards. The CIS enables the timely and accurate recording of marks; its capacity for scrutiny, support, and feedback is continuously expanding.

The Marking Scheme, in outline, will lead the process of Test Project design. After this, the Marking Scheme and Test Project will be designed, developed, and verified through an iterative process, to ensure that both together optimize their relationship with the Standards and the Assessment Strategy. They will be agreed by the Experts and submitted to WSI for approval together, in order to demonstrate their quality and conformity with the Standards.

Prior to submission for approval to WSI, the Marking Scheme and Test Project will liaise with the WSI Skill Advisors for quality assurance and to benefit from the capabilities of the CIS.

## 4 The Marking Scheme

### 4.1 General guidance

This section describes the role and place of the Marking Scheme, how the Experts will assess Competitors' work as demonstrated through the Test Project, and the procedures and requirements for marking.

The Marking Scheme is the pivotal instrument of the WorldSkills Competition, in that it ties assessment to the standard that represents each skill competition, which itself represents a global occupation. It is designed to allocate marks for each assessed aspect of performance in accordance with the weightings in the Standards.

By reflecting the weightings in the Standards, the Marking Scheme establishes the parameters for the design of the Test Project. Depending on the nature of the skill competition and its assessment needs, it may initially be appropriate to develop the Marking Scheme in more detail as a guide for Test Project design. Alternatively, initial Test Project design can be based on the outline Marking Scheme. From this point onwards the Marking Scheme and Test Project should be developed together.

Section 2.1 above indicates the extent to which the Marking Scheme and Test Project may diverge from the weightings given in the Standards, if there is no practicable alternative.

For integrity and fairness, the Marking Scheme and Test Project are increasingly designed and developed by one or more independent people with relevant expertise. In these instances, the Marking Scheme and Test Project are unseen by Experts until immediately before the start of the skill competition, or competition module. Where the detailed and final Marking Scheme and Test Project are designed by Experts, they must be approved by the whole Expert group prior to submission for independent validation and quality assurance. Please see the Rules for further details.

Experts and Independent Assessors are required to submit their Marking Schemes and Test Projects for review, verification, and validation well in advance of completion. They are also expected to work with their Skill Advisor, reviewers, and verifiers, throughout the design and development process, for quality assurance and in order to take full advantage of the CIS's features.

In all cases a draft Marking Scheme must be entered into the CIS at least eight weeks prior to the Competition. Skill Advisors actively facilitate this process.

### 4.2 Assessment Criteria

The main headings of the Marking Scheme are the Assessment Criteria. These headings are derived before, or in conjunction with, the Test Project. In some skill competitions the Assessment Criteria may be similar to the section headings in the Standards; in others they may be different. There will normally be between five and nine Assessment Criteria. Whether or not the headings match, the Marking Scheme as a whole must reflect the weightings in the Standards.

Assessment Criteria are created by the person or people developing the Marking Scheme, who are free to define the Criteria that they consider most suited to the assessment and marking of the Test Project. Each Assessment Criterion is defined by a letter (A-I). *The Assessment Criteria, the allocation of marks, and the assessment methods, should not be set out within this Technical Description. This is because the Criteria, allocation of marks, and assessment methods all depend on the nature of the Marking Scheme and Test Project, which is decided after this Technical Description is published.*

The Mark Summary Form generated by the CIS will comprise a list of the Assessment Criteria and Sub Criteria.

The marks allocated to each Criterion will be calculated by the CIS. These will be the cumulative sum of marks given to each Aspect within that Assessment Criterion.

### 4.3 Sub Criteria

Each Assessment Criterion is divided into one or more Sub Criteria. Each Sub Criterion becomes the heading for a WorldSkills marking form. Each marking form (Sub Criterion) contains Aspects to be assessed and marked by measurement or judgement, or both measurement and judgement.

Each marking form (Sub Criterion) specifies both the day on which it will be marked, and the identity of the marking team.

### 4.4 Aspects

Each Aspect defines, in detail, a single item to be assessed and marked, together with the marks, and detailed descriptors or instructions as a guide to marking. Each Aspect is assessed either by measurement or by judgement.

The marking form lists, in detail, every Aspect to be marked together with the mark allocated to it. The sum of the marks allocated to each Aspect must fall within the range of marks specified for that section of the Standards. This will be displayed in the Mark Allocation Table of the CIS, in the following format, when the Marking Scheme is reviewed from C-8 weeks. (Section 4.1 refers.)

	CRITERIA								TOTAL MARKS PER SECTION	WSSS MARKS PER SECTION	VARIANCE	
	A	B	C	D	E	F	G	H				
STANDARDS SPECIFICATION SECTION												
1	5.00								5.00	5.00	0.00	
2		2.00					7.50		9.50	10.00	0.50	
3								11.00	11.00	10.00	1.00	
4			5.00						5.00	5.00	0.00	
5				10.00	10.00	10.00			30.00	30.00	0.00	
6		8.00	5.00				2.50	9.00	24.50	25.00	0.50	
7			10.00				5.00		15.00	15.00	0.00	
TOTAL MARKS	5.00	10.00	20.00	10.00	10.00	10.00	15.00	20.00	100.00	100.00	2.00	

### 4.5 Assessment and marking

There is to be one marking team for each Sub Criterion, whether it is assessed and marked by judgement, measurement, or both. The same marking team must assess and mark all Competitors. Where this is impracticable (for example where an action must be done by every Competitor simultaneously, and must be observed doing so), a second tier of assessment and marking will be put in place, with the approval of the Competitions Committee Management Team. The marking teams must be organized to ensure that there is no compatriot marking in any circumstances. (Section 4.6 refers.)

## 4.6 Assessment and marking using judgement

Judgement uses a scale of 0-3. To apply the scale with rigour and consistency, judgement must be conducted using:

- benchmarks (criteria) for detailed guidance for each Aspect (in words, images, artefacts or separate guidance notes)
- the 0-3 scale to indicate:
  - 0: performance below industry standard
  - 1: performance meets industry standard
  - 2: performance meets and, in specific respects, exceeds industry standard
  - 3: performance wholly exceeds industry standard and is judged as excellent

Three Experts will judge each Aspect, normally simultaneously, and record their scores. A fourth Expert coordinates and supervises the scoring, and checks their validity. They also act as a judge when required to prevent compatriot marking.

## 4.7 Assessment and marking using measurement

Normally three Experts will be used to assess each aspect, with a fourth Expert supervising. In some circumstances the team may organize itself as two pairs, for dual marking. Unless otherwise stated, only the maximum mark or zero will be awarded. Where they are used, the benchmarks for awarding partial marks will be clearly defined within the Aspect. To avoid errors in calculation or transmission, the CIS provides a large number of automated calculation options, the use of which is mandated.

## 4.8 The use of measurement and judgement

Decisions regarding the choice of criteria and assessment methods will be made during the design of the competition through the Marking Scheme and Test Project.

## 4.9 Skill assessment strategy

WorldSkills is committed to continuous improvement. This particularly applies to assessment. The SMT is expected to learn from past and alternative practice and build on the validity and quality of assessment and marking.

### Criterion A – Design

Experts will assess the following aspects using Judgement Marking:

- Creativity/original concept/innovation;
- Use of the elements and principles of design;
- Handling of supplied materials;
- Fabric, design, and colour coordination;
- Technical drawings by computer (e.g. Illustrator)

### Criterion B – Patternmaking

Experts will assess the following aspects using both Judgement and Measurement Marking:

- Interpretation of the design (shape and proportion reflect the drawing);
- Accurate measurement;
- Flat pattern making and/or draping;
- Pattern accuracy/flow through;
- Pattern information (grain line, cutting instructions, notches, etc.).

### **Criterion C – Construction**

Experts will assess the following aspects using both Judgement and Measurement Marking:

- Layout and cutting;
- Measurements;
- All stitching (seams, matching of junctions, facings, hems, linings, etc.);
- Hand sewing and handling of trims;
- Overall quality of construction.

### **Criterion D – Appearance**

Experts will assess the following aspects using Judgement Marking:

- General pressing;
- Drape and shape of the garment;
- Quality of the finished garment.

### **Criterion E – Level of Difficulty**

Experts will assess the following aspects using Judgement Marking:

- Complexity of design and pattern;
- Complexity of construction techniques.

## **4.10 Skill assessment procedures**

Assessment and marking are an intense process that depends upon skilful leadership, management, and scrutiny.

Prior the Competition, the Chief Expert will explain the assessment method to all Experts.

The Chief Expert will divide the assessing Experts into teams for marking and setting up marking schedules.

The Experts should assess the same aspects for all the Competitors.

Measurement Marking is marked by teams according to criteria set, e.g. measurements, as detailed in section 4.7.

Judgement Marking is marked by teams using flash cards.

## 5 The Test Project

### 5.1 General notes

Sections 3 and 4 govern the development of the Test Project. These notes are supplementary.

Whether it is a single entity, or a series of stand-alone or connected modules, the Test Project will enable the assessment of the applied knowledge, skills, and behaviours set out in each section of the WSOS.

The purpose of the Test Project is to provide full, balanced, and authentic opportunities for assessment and marking across the Standards, in conjunction with the Marking Scheme. The relationship between the Test Project, Marking Scheme, and Standards will be a key indicator of quality, as will be its relationship with actual work performance.

The Test Project will not cover areas outside the Standards, or affect the balance of marks within the Standards other than in the circumstances indicated by Section 2. This Technical Description will note any issues that affect the Test Project's capacity to support the full range of assessment relative to the Standards. Section 2.1 refers.

The Test Project will enable knowledge and understanding to be assessed solely through their applications within practical work. The Test Project will not assess knowledge of WorldSkills rules and regulations.

Most Test Projects (and Marking Schemes) are now designed and developed independently of the Experts. They are designed and developed either by the Skill Competition Manager, or an Independent Test Project Developer, normally from C-12 months. They are subject to independent review, verification, and validation. (Section 4.1 refers.)

The information provided below will be subject to what is known at the time of completing this Technical Description, and the requirement for confidentiality.

Please refer to the current version of the Competition Rules for further details.

### 5.2 Format/structure of the Test Project

The Test Project is a single Test Project with four (4) separately assessed modules.

## 5.3 Test Project design requirements

The Test Project must contain a minimum of three (3) modules and be able to be assessed throughout the Competition.

- The Test Project must reflect industry best practices as outlined in the WSOS;
- The Test Project will assess sketching, patternmaking, draping, garment cutting, and construction.
- The draping module can be a dress or two pieces;
- The sketching module will include two target markets – fast fashion and couture.
- All materials and fabrics must be suitable for the Test Project and commercially available, they should be secured and stored after samples have been confirmed;
- The Test Project must include fabrics of different weight and type (excluding lining);
- The Test Project will contain a variety of fabrics and trimmings (optional) that match the theme and complement the Test Project in order to test the Competitor’s creative design skill;
- The Competition Organizer will provide detailed information of the supplier in the online Infrastructure List system as well as details of the fabric to be used;
- The Test Project must include an individually designed garment or part of garment (judgement marking).
- The Test project must include an element of hand sewing and varied industrial machinery for assessment according to the WSOS.

## 5.4 Test Project development

The Test Project MUST be submitted using the templates provided by WorldSkills International ([www.worldskills.org/expertcentre](http://www.worldskills.org/expertcentre)). Use the Word template for text documents and DWG template for drawings.

### 5.4.1 Who develops the Test Project or modules

The Test Project/modules are developed by an Independent Test Project Designer in collaboration with the Skill Competition Manager.

### 5.4.2 When is the Test Project developed

The Test Project/modules are developed according to the following timeline:

Time	Activity
Prior to the Competition	The Test Project/modules are developed.
Four (4) months prior to the Competition	The Test Project concept is circulated on the WorldSkills website
One (1) month prior to the Competition	The Marking Scheme is uploaded to the WorldSkills Discussion Forum.
One (1) month prior to the Competition	Discussion ends and the Marking Scheme is finalized and uploaded to the CIS. The Test Project/modules are sent to the WorldSkills Skills Competitions Administration Manager.
At the Competition at the beginning of each module	The Test Project/modules are presented to Competitors.

## 5.5 Test Project initial review and verification

The purpose of a Test Project is to create a challenge for Competitors which authentically represents working life for an outstanding practitioner in an identified occupation. By doing this, the Test Project will apply the Marking Scheme and fully represent the WSOS. In this way it is unique in its context, purpose, activities, and expectations,

To support Test Project design and development, a rigorous quality assurance and design process is in place (Competition Rules sections 10.6-10.7 refer.) Once approved by WorldSkills, the Independent Test Project Designer is expected to identify one or more independent, expert, and trusted individuals initially to review the Designer's ideas and plans, and subsequently to verify the Test Project, prior to validation.

A Skill Advisor will ensure and coordinate this arrangement, to guarantee the timeliness and thoroughness of both initial review, and verification, based on the risk analysis that underpins Section 10.7 of the Competition Rules.

## 5.6 Test Project validation

The Skill Competition Manager coordinates the validation and will ensure that the Test Project/modules can be completed within the material, equipment, knowledge, and time constraints of Competitors..

The toile for the pattern or block for the garment must be displayed as a sample in the workshop, for the Competitor and the public to see. The Competitor may not touch the toile.

## 5.7 Test Project selection

The Test Project/modules are selected by the Independent Test Project Designer in collaboration with the Skill Competition Manager.

## 5.8 Test Project circulation

The Test Project is circulated via the website as follows:

The concept of the Test Project/modules is circulated four (4) months prior to the competition.

The final Test Project/modules including mystery modules or modules with random elements are presented to Competitors at the beginning of each module.

## 5.9 Test Project coordination (preparation for Competition)

Coordination of the Test Project/modules is undertaken by the Skill Competition Manager.

## 5.10 Test Project change

There is no 30% change required to be made to the Test Project/modules at the Competition. Exceptions are amendments to technical errors in the Test Project documents and to infrastructure limitations.

The mystery modules or modules with random elements constitutes the required changes.

## 5.11 Material or manufacturer specifications

Specific material and/or manufacturer specifications required to allow the Competitor to complete the Test Project will be supplied by the Competition Organizer and are available from [www.worldskills.org/infrastructure](http://www.worldskills.org/infrastructure) located in the Expert Centre. However, note that in some cases details of specific materials and/or manufacturer specifications may remain secret and will not be released prior to the Competition. These such items may include those for fault finding modules or modules not circulated.

- The Competition Organizer will provide contact details of suppliers or agents for the fabric at least three (3) months prior to the Competition;
- Dress forms must be suitable for draping with standardized body measurements;
- Calico must be supplied for pattern testing at the Competition.

## 6 Skill management and communication

### 6.1 Discussion Forum

Prior to the Competition, all discussion, communication, collaboration, and decision making regarding the skill competition must take place on the skill specific Discussion Forum (<http://forums.worldskills.org>). Skill related decisions and communication are only valid if they take place on the forum. The Chief Expert (or an Expert nominated by the Chief Expert) will be the moderator for this Forum. Refer to Competition Rules for the timeline of communication and competition development requirements.

### 6.2 Competitor information

All information for registered Competitors is available from the Competitor Centre ([www.worldskills.org/competitorcentre](http://www.worldskills.org/competitorcentre)).

This information includes:

- Competition Rules
- Technical Descriptions
- Mark Summary Form (where applicable)
- Test Projects (where applicable)
- Infrastructure List
- WorldSkills Health, Safety, and Environment Policy and Regulations
- Other Competition-related information

### 6.3 Test Projects [and Marking Schemes]

Circulated Test Projects will be available from [www.worldskills.org/testprojects](http://www.worldskills.org/testprojects) and the Competitor Centre ([www.worldskills.org/competitorcentre](http://www.worldskills.org/competitorcentre)).

### 6.4 Day-to-day management

The day-to-day management of the skill during the Competition is defined in the Skill Management Plan that is created by the Skill Management Team led by the Skill Competition Manager. The Skill Management Team comprises the Skill Competition Manager, Chief Expert, and Deputy Chief Expert. The Skill Management Plan is progressively developed in the six months prior to the Competition and finalized at the Competition by agreement of the Experts. The Skill Management Plan can be viewed in the Expert Centre ([www.worldskills.org/expertcentre](http://www.worldskills.org/expertcentre)).

## 6.5 General best practice procedures

General best practice procedures clearly delineate the difference between what is a best practice procedure and skill-specific rules (section 9). General best practice procedures are those where Experts and Competitors CANNOT be held accountable as a breach to the Competition Rules or skill-specific rules which would have a penalty applied as part of the Issue and Dispute Resolution procedure including the Code of Ethics and Conduct Penalty System. In some cases, general best practice procedures for Competitors may be reflected in the Marking Scheme.

Topic/task	Best practice procedure
Equipment failure	<ul style="list-style-type: none"> <li>• If equipment or tools supplied by the Competition Organizer fail, extra time will be allowed. Competitors must advise the Chief Expert as soon as the failure occurs. Not all equipment failure will result in extra time. Competitors must change their own needles where breakage occurs at their workstation</li> <li>• Competitors should alert Experts of equipment failure immediately for assistance with replacing or repairing the equipment.</li> </ul>
Materials	<ul style="list-style-type: none"> <li>• Competitors are not allowed to bring ANY kind of fabric, trims, notions, or thread to Familiarization Day or the Competition days.</li> <li>• Competitors are not allowed to bring any kind of pattern pieces, sloper/blocks, books, notepads/paper, or samples during familiarization and competition. If any of these are found, they will be taken away and returned after familiarization or after the competition.</li> </ul>
Assessment/Interpreters	<ul style="list-style-type: none"> <li>• Interpreters can translate the Marking Scheme and assist with interpretation during the marking process, but they cannot help DO the actual assessment. They should stand back until called by their compatriot Expert.</li> </ul>

## 7 Skill-specific safety requirements

Refer to WorldSkills Health, Safety, and Environment Policy and Regulations for Host country or region regulations.

Task	Sturdy shoes with closed toe and heel	Hair tied back (if long)	No hanging jewellery and head scarf firmly tie
General PPE for safe areas	√		
Operating sewing machines	√	√	√
Operating pressing equipment	√	√	√
Cutting fabric	√	√	√

## 8 Materials and equipment

### 8.1 Infrastructure List

The Infrastructure List details all equipment, materials, and facilities provided by the Competition Organizer.

The Infrastructure List is available at [www.worldskills.org/infrastructure](http://www.worldskills.org/infrastructure).

The Infrastructure List specifies the items and quantities requested by the Skill Management Team for the next Competition. The Competition Organizer will progressively update the Infrastructure List specifying the actual quantity, type, brand, and model of the items. Note that in some cases details of specific materials and/or manufacturer specifications may remain secret and will not be released prior to the Competition. These such items may include those for fault finding modules or modules not circulated.

At each Competition, the Skill Management Team must review and update the Infrastructure List in preparation for the next Competition. The Skill Competition Manager must advise the Director of Skills Competitions of any increases in space and/or equipment.

At each Competition, the Technical Observer must audit the Infrastructure List that was used at that Competition.

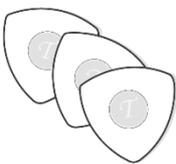
The Infrastructure List does not include items that Competitors and/or Experts are required to bring and items that Competitors are not allowed to bring – they are specified below.

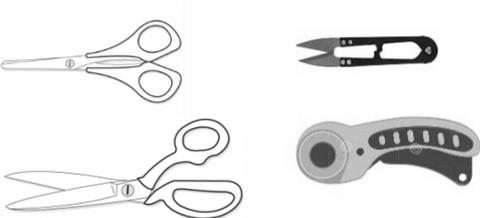
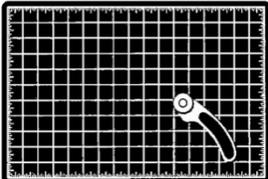
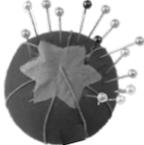
### 8.2 Competitors toolbox

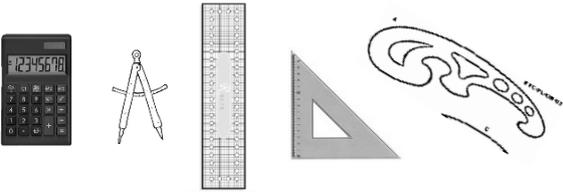
Competitors are not allowed to send a toolbox to the Competition. All tools are provided by the Competition Organizer.

### 8.3 Materials, equipment, and tools supplied by Competitors

It is not applicable for Fashion Technology to bring a toolbox to the Competition. However, Competitors are allowed to bring personal tools on the morning of C-2 (Familiarization Day) as defined in the table below.

Description	Quantity	Photo
Tailor's chalk		
Pencils		

Description	Quantity	Photo
Tracing wheel and tracing paper		
Thimble		
Awl		
Scissors (paper, fabric, thread cutter/clipper, electric scissors or rotary cutter)		
Cutting mat for rotary cutter		
Pins		
Stitch ripper		

Description	Quantity	Photo
Hand sewing needles		
Clock/Timer		
A selection of drawing tools (felt tip pens, etc.)		
Patternmaking construction tools (calculator, compass, rulers, set square, curves etc.)		
Loop turner		
Point turner		

Experts will check the tool sets every day.

The use of equipment used to create specialized fabrications according to a Competitor's design must be proposed and discussed on the Discussion Forum before the competition.

If a Competitor needs special tools unique to their own country/region then the tools must be made available (brought by the Expert/Competitor) for every Competitor on Familiarization Day C-2.

Competitors are required to supply their own Personal Protective Equipment as specified in section 7 skill-specific safety requirements.

**Over-locker machines supplied by the Competition Organizer will be shared - one per three Competitors.**

**Fusing presses are shared equipment.**

## 8.4 Materials, equipment, and tools supplied by Experts

Experts are required to supply their own Personal Protective Equipment as specified in section 7 skill-specific safety requirements.

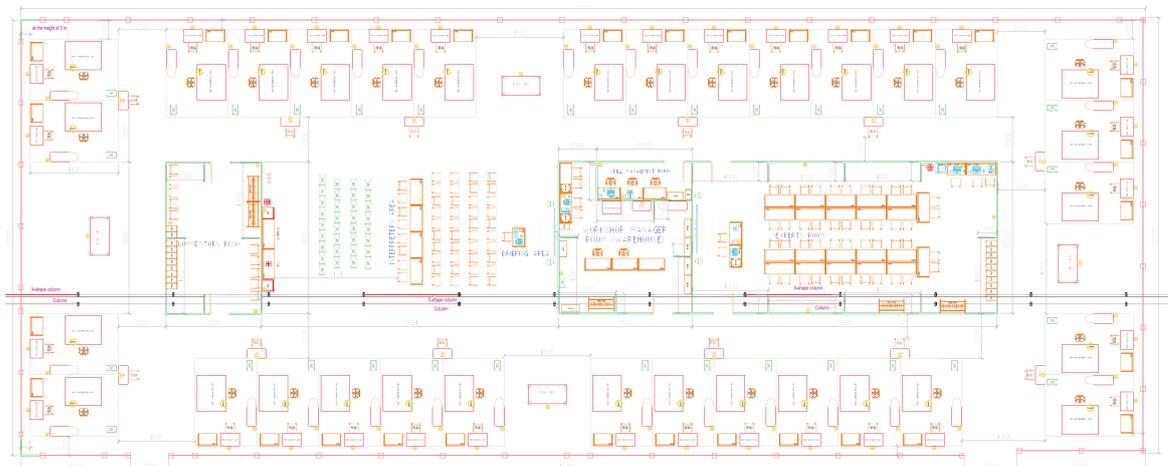
## 8.5 Materials and equipment prohibited in the skill area

Competitors and Experts are prohibited to bring any materials or equipment not listed in section 8.3 and section 8.4.

## 8.6 Proposed workshop and workstation layouts

Workshop layouts from previous competitions are available at [www.worldskills.org/sitelayout](http://www.worldskills.org/sitelayout).

### Example workshop layout



## 9 Skill-specific rules

Skill-specific rules cannot contradict or take priority over the Competition Rules. They do provide specific details and clarity in areas that may vary from skill competition to skill competition. This includes but is not limited to personal IT equipment, data storage devices, Internet access, procedures and workflow, and documentation management and distribution. Breaches of these rules will be solved according to the Issue and Dispute Resolution procedure including the Code of Ethics and Conduct Penalty System.

Topic/task	Skill-specific rules
Use of technology – USB, memory sticks	<ul style="list-style-type: none"> <li>• Competitors are not allowed to bring memory sticks into the workshop. If they do bring memory sticks into the workshop they are to be locked in the personal locker and only removed at the end of competition on C4.</li> <li>• Experts and Interpreters are allowed to bring memory sticks into the workshop for translation purposes only. The Skill Competition Manager, Chief Expert, and Deputy Chief Expert may use memory sticks for presentation purposes also. In these cases, the personal memory stick must remain locked in the personal locker until the end of C4.</li> </ul>
Use of technology – personal laptops, tablets and mobile phones	<ul style="list-style-type: none"> <li>• Skill Competition Manager, Chief Expert, Deputy Chief Expert, Experts and Interpreters are allowed to use personal laptops, tablets, and mobile phones in the Expert room only. If any of these items are brought into the workshop they are to be locked in the personal locker and only removed at the end of each day and at lunch time.</li> <li>• Competitors are not allowed to use personal laptops, tablets, mobile phones, or music devices. If any of these items are brought into the workshop they are to be locked in the personal locker and only removed at the end of each day and at lunch time.</li> </ul>
Use of technology – personal photo and video taking devices	<ul style="list-style-type: none"> <li>• Skill Competition Manager, Chief Expert, Deputy Chief Expert, Competitors, Experts, and Interpreters are allowed to use personal photo and video taking devices in the workshop at the conclusion of the competition on C4 only.</li> <li>• The Chief Expert and/or Deputy Chief Expert will take photos of work to keep a record on the tablet supplied by WorldSkills.</li> </ul>
Test Project drawings, recording information	<ul style="list-style-type: none"> <li>• Competitors, Experts, and Interpreters are not permitted to take the Test Project drawings or any notes they have made out of the workshop.</li> <li>• The Competitor is not allowed to take any part of the Test Project or any material out of the workshop.</li> </ul>
Templates, aids, etc.	<ul style="list-style-type: none"> <li>• Competitors are not allowed to bring books, samples, or other instructions into the workshop.</li> <li>• Experts and Interpreters are allowed to bring a dictionary and translation device.</li> </ul>

## 10 Visitor and media engagement

Following is a list of possible ways to maximize visitor and media engagement:

- Display screens;
- Test Project descriptions;
- Enhanced understanding of Competitor activity;
- Competitor profiles;
- Daily reporting of competition status;

## 11 Sustainability

This skill competition will focus on the sustainable practices below:

- Recycling;
- Use of “green” materials;
- Use of completed Test Projects after Competition;
- Test Projects will endeavour to reduce the requirement for materials, equipment, and space.
- Fashion show of Competitors’ completed Test Projects (after assessment) or display of national costume by Host Country

## 12 References for industry consultation

WorldSkills is committed to ensuring that the WorldSkills Occupational Standards fully reflect the dynamism of internationally recognized best practice in industry and business. To do this WorldSkills approaches a number of organizations across the world that can offer feedback on the draft Description of the Associated Role and WorldSkills Occupational Standards on a two-yearly cycle.

In parallel to this, WSI consults three international occupational classifications and databases:

- ISCO-08: (<http://www.ilo.org/public/english/bureau/stat/isco/isco08/>)
- ESCO: (<https://ec.europa.eu/esco/portal/home> )
- O\*NET OnLine ([www.onetonline.org/](http://www.onetonline.org/))

This WSOS appears to relate most closely to *Fashion Designers*:

<https://www.onetonline.org/link/summary/27-1022.00>

and *Fashion Designer*:

<http://data.europa.eu/esco/occupation/77bfd6e7-5598-4818-84cb-31e2651eb046>

The following table indicates which organizations were approached and provided valuable feedback for the Description of the Associated Role and WorldSkills Occupational Standards in place for WorldSkills Shanghai 2021.

There were no responses to the requests for feedback this cycle.