

Technical Description

# Fashion Technology

Creative Arts and Fashion



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:

<b>1 INTRODUCTION .....</b>	<b>2</b>
<b>2 THE WORLDSKILLS STANDARDS SPECIFICATION (WSSS) .....</b>	<b>4</b>
<b>3 THE ASSESSMENT STRATEGY AND SPECIFICATION .....</b>	<b>11</b>
<b>4 THE MARKING SCHEME .....</b>	<b>12</b>
<b>5 THE TEST PROJECT .....</b>	<b>16</b>
<b>6 SKILL MANAGEMENT AND COMMUNICATION .....</b>	<b>19</b>
<b>7 SKILL-SPECIFIC SAFETY REQUIREMENTS .....</b>	<b>20</b>
<b>8 MATERIALS AND EQUIPMENT .....</b>	<b>21</b>
<b>9 SKILL-SPECIFIC RULES .....</b>	<b>27</b>
<b>10 VISITOR AND MEDIA ENGAGEMENT .....</b>	<b>29</b>
<b>11 SUSTAINABILITY .....</b>	<b>30</b>
<b>12 REFERENCES FOR INDUSTRY CONSULTATION .....</b>	<b>31</b>

Effective 22.08.18



Stefan Praschl  
Chair of the Competitions Committee



Michael Fung  
Vice Chair of the Competitions Committee

© WorldSkills International (WSI) reserves all rights in documents developed for or on behalf of WSI, including translation and electronic distribution. This material may be reproduced for non-commercial vocational and educational purposes provided that the WorldSkills logo and copyright notice are left in place.

# 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 behave 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 – Competition Rules
- WSI – WorldSkills Standards Specification framework
- WSI – WorldSkills Assessment Strategy
- WSI Online resources as indicated in this document
- WorldSkills Health, Safety, and Environment Policy and Regulations

## 2 THE WORLDSKILLS STANDARDS SPECIFICATION (WSSS)

### 2.1 GENERAL NOTES ON THE WSSS

The WSSS 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/WSSS](http://www.worldskills.org/WSSS)).

The skill competition is intended to reflect international best practice as described by the WSSS, and to the extent that it is able to. The Standards Specification 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 Standards Specification 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 Specification. This is often referred to as the “weighting”. The sum of all the percentage marks is 100.

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

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

## 2.2 WORLDSKILLS STANDARDS SPECIFICATION

SECTION		RELATIVE IMPORTANCE (%)
1	<b>Work organization and management</b>	7
	<p>The individual needs to know and understand:</p> <ul style="list-style-type: none"> <li>• Materials/fabrics, their characteristics, properties, and uses</li> <li>• The fashion industry processes across the world</li> <li>• Processes for mass produced, small collection, bespoke, and couture fashion</li> <li>• Industry jargon and terminology</li> <li>• That specialist areas and sectors exist within the industry including knitwear, menswear, children, and infants' clothing</li> <li>• The need for marketing and good business practice</li> <li>• The importance of continuous professional development</li> <li>• Health and safety regulations and best practice</li> <li>• The importance of maintaining a clean and organized workplace</li> <li>• The importance of effective work-planning, organization, and deadlines</li> <li>• The importance of accuracy and care when preparing fabrics for production</li> <li>• The range, uses and care of specialist tools and equipment used in the fashion industry</li> <li>• Issues regarding ethics and sustainability regarding the purchase, production, and sale of fashion items</li> <li>• How to assess for quality assurance at all stages of production</li> </ul>	
	<p>The individual shall be able to:</p> <ul style="list-style-type: none"> <li>• Proactively develop own knowledge and skills</li> <li>• Demonstrate an awareness of current trends and fashions in clothing design, accessories, colours, fabrics, etc.</li> <li>• Take account of the properties of different fabrics including the limitations of certain fabrics/fibres</li> <li>• Fully comply with and promote health and safety practices in the workplace to maintain a safe and healthy working environment</li> <li>• Use all equipment safely and according to manufacturers' instructions</li> <li>• Use and care for all specialist tools and equipment used in the fashion industry</li> <li>• Select the correct tool or piece of equipment for each task and design</li> <li>• Plan and prioritize work to maximize efficiency in the workplace and to meet deadlines</li> <li>• Work cleanly and safely in all work areas so as to protect materials and finished products throughout</li> <li>• Keep all work areas clean to facilitate efficiency and protect materials and tools</li> <li>• Source support for business development</li> <li>• Purchase materials and fabrics cost effectively with due consideration of sustainability and ethics as well as budgets</li> <li>• Amend any areas of the process or product that do not meet quality control standards</li> </ul>	

<b>2</b>	<b>Communications and interpersonal skills</b>	<b>5</b>
	<p>The individual needs to know and understand:</p> <ul style="list-style-type: none"> <li>• The importance of tact, discretion, diplomacy, and confidentiality when meeting with clients</li> <li>• How to communicate effectively with clients to understand requirements, including design briefs</li> <li>• How to communicate effectively with other industry professionals including design team members, ordering materials, sub-contracting work or dealing with suppliers</li> <li>• How to appropriately handle a client in a measuring or fitting situation</li> <li>• How to communicate effectively including presentation and sales skills</li> </ul>	
	<p>The individual shall be able to:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with both internal and external clients and show a good understanding of technical and industry specific terms</li> <li>• Communicate clearly with clients to understand their specific needs and design requirements</li> <li>• Act with confidentiality, discretion, and tact when working with clients</li> <li>• Measure or fit a client for garments with care and tact working with them to make sure client needs and expectations are met</li> <li>• Provide expert advice and guidance to clients to enable them to make informed decisions about purchases or production requirements</li> <li>• Seek expert advice and guidance from other industry professionals to enable informed decisions about purchases or production requirements</li> <li>• Provide expert and tactful guidance on styles, colours, and fabrics that will suit the need of the client and be appropriate for specific designs</li> <li>• Provide appropriate advice and guidance to a client on the after care of the garment</li> <li>• Present ideas, designs, vision, and production solutions to both internal and external clients</li> </ul>	
<b>3</b>	<b>Problem solving, innovation, and creativity</b>	<b>7</b>
	<p>The individual needs to know and understand:</p> <ul style="list-style-type: none"> <li>• The importance of both individuality and conformity to all areas of the fashion industry</li> <li>• Basic machine care, fault finding, and resolution</li> <li>• Creativity and its relevance and importance to the fashion industry</li> <li>• All technical aspects of the production process</li> <li>• Fabric properties and characteristics</li> <li>• The purposes, properties, and characteristics of specialty fabrics</li> <li>• The limitations of the design and production process, and how to anticipate and address technical problems which may arise</li> </ul>	

	<p>The individual shall be able to:</p> <ul style="list-style-type: none"> <li>• Demonstrate innovation and creativity in design</li> <li>• Think creatively to devise innovative solutions</li> <li>• Use creative solutions to resolve design and/or production challenges</li> <li>• Alter garments to provide a better or custom fit, to update or to make garments more appropriate</li> <li>• 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)</li> <li>• Resolve production issues in cutting and construction relating to availability of materials (or quantities), design, and/or construction techniques and cost</li> <li>• Critically judge the quality of the garment and finish and proactively seek resolutions to any imperfections both during and after the production process</li> <li>• Resolve basic machine issues such as broken needles</li> </ul>	
<b>4</b>	<b>Fashion design</b>	<b>15</b>
	<p>The individual needs to know and understand:</p> <ul style="list-style-type: none"> <li>• The design elements and principles</li> <li>• The range of fabrics and materials available to the fashion designer, their characteristics, uses and care</li> <li>• Developments in new and speciality fabrics, and their implications for fashion and clothing</li> <li>• Current fashions, trends and themes relating to materials and fabrics, colour and style</li> <li>• The impact of culture and tradition in fashion design</li> <li>• The range and type of materials that can be used as part of a fashion garment design (both outside and inside the garment)</li> <li>• The co-ordination of colours, styles, materials/fabrics, accessories and themes</li> <li>• 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</li> <li>• The impact of body shape and size on the fit and appearance of a fashion garment</li> <li>• Global influences on fashion design and how traditions and national characteristics impact design</li> <li>• The bearing of the production process, and its costs, on opportunities and constraints for design</li> <li>• How to communicate design concepts and ideas to potential clients or industry professionals</li> <li>• The technical elements of garment construction and how they impact production in reference to materials, function, wearability and costings</li> </ul>	



	<p>The individual shall be able to:</p> <ul style="list-style-type: none"> <li>• Research fashion trends and apply these appropriately to designs</li> <li>• Direct the design to the target market or individual when designing fashion items</li> <li>• Illustrate garment designs showing technical details</li> <li>• Create theme/trend boards and illustrations to communicate ideas, concepts and visions</li> <li>• Identify different types of fabric and select suitable fabrics for particular uses</li> <li>• Take account of the properties of selected speciality fabrics within the design, development and production process</li> <li>• Apply knowledge of basic cuts and styles to inform designs but not to restrict creativity and innovation</li> <li>• Select appropriate fabrics to different fashion designs</li> <li>• Select and use different notions such as zips, buttons, shoulder pads as well as trims like lace, beads, and ribbons</li> <li>• Apply different embellishments and accessories to the design</li> <li>• Co-ordinate colours, styles, materials/fabrics, and accessories to produce high quality design</li> <li>• Provide professional and tactful guidance on styles, colours, and fabrics that will suit the need of the client</li> <li>• Use artistic ability, creativity, and innovation to design a full variety of garments for all manner of target markets</li> <li>• Create designs following a theme or design brief</li> <li>• Alter and adapt designs to meet clients' needs and to make the design relevant to the brief</li> <li>• Modify ready-made garments to create new designs</li> </ul>	
<b>5</b>	<b>Technical drawing</b>	<b>10</b>
	<p>The individual needs to know and understand:</p> <ul style="list-style-type: none"> <li>• How to both interpret and create specialist technical drawings</li> <li>• Specialist industry-related terminology and symbols</li> <li>• The use of IT and specialist software to produce images and designs</li> </ul>	
	<p>The individual shall be able to:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with clients</li> <li>• Understand specific requirements when working with internal and external clients</li> <li>• Provide professional advice and guidance to internal and external clients to enable them to make informed decisions about fabrics, design, production and costings</li> <li>• Create specialist technical drawings using industry recognized terminology and symbols that effectively convey necessary design details and vision</li> <li>• Present ideas, designs, vision, and production solutions to client</li> <li>• Read and interpret both technical drawings and fashion drawings or photos</li> <li>• Prepare accurate line/flat drawings by hand, showing technical design elements</li> <li>• Use computers and specialist software to create CAD 2D and 3D images</li> <li>• Clearly label drawings and images</li> <li>• Prepare clear, logical, sequential, and accurate written and</li> </ul>	

	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>20</b>
	<p>The individual needs to know and understand:</p> <ul style="list-style-type: none"> <li>• The construction of garments using 2D flat patterns or 3D draping</li> <li>• The process to create 2D patterns for various garments using blocks or slopers or drafting from measurements</li> <li>• How to use specialist patternmaking equipment</li> <li>• The use of IT specialist software to produce patterns</li> <li>• Basic grading of patterns to other sizes</li> <li>• The use of dress forms in constructing garments or testing patterns</li> <li>• The requirements of different designs and how to use the most appropriate cut or patternmaking principle</li> <li>• How various fabrics react to different styles or production techniques</li> <li>• How to mark fabrics and the importance of accuracy</li> <li>• How various styles function with regard to fit and easing</li> <li>• How to utilize patternmaking</li> </ul>	
	<p>The individual shall be able to:</p> <ul style="list-style-type: none"> <li>• Create/develop or alter patterns for various types of garments, such as tailored jackets, dresses, skirts, or trousers</li> <li>• Drape on dress forms for various types of garments, such as tops, dresses, skirts, or trousers</li> <li>• Select the best method of construction appropriate to different fabrics, designs and markets</li> <li>• Prepare calico/muslin or toile garments or parts of garments to prototype/test patterns</li> <li>• Transfer draped 3D patterns to paper or pattern board</li> <li>• Measure and mark accurately</li> <li>• Choose appropriate linings and fusings for fabric and design requirements and develop patterns accordingly</li> <li>• Fit garments to specified sizes</li> <li>• Prepare patterns for cutting with appropriate seam allowances and grainlines, darts etc.</li> <li>• Label patterns with clear information regarding size, style, cutting, etc</li> </ul>	
<b>7</b>	<b>Cutting, sewing, and finishing techniques</b>	<b>36</b>
	<p>The individual needs to know and understand:</p> <ul style="list-style-type: none"> <li>• The importance of accuracy when cutting fabrics in order to minimize wastage and to optimize the finished garment</li> <li>• Pattern preparation and correct layout and marking of patterns on fabric</li> <li>• The use of cutting tools both manual and electric</li> <li>• The machinery and tools used for garment production</li> <li>• The maintenance and use of industrial machines</li> <li>• Garment construction processes/techniques</li> <li>• The industry terms for different techniques and finishes</li> <li>• Different types of stitching and finishing and their appropriate applications</li> <li>• Various notions/trims and their uses such as threads, zips, piping, fastenings, etc.</li> </ul>	

	<ul style="list-style-type: none"> <li>• The properties of different fabrics and how to handle them including when cutting, sewing, and pressing</li> </ul>	
	<p>The individual shall be able to:</p> <ul style="list-style-type: none"> <li>• Accurately measure fabrics according to the pattern</li> <li>• Correctly prepare and mark a layout to optimize fabric utilization and follow pattern instructions</li> <li>• Cut fabrics accurately using the most appropriate tool or equipment</li> <li>• Use various types of industrial equipment used in the fashion industry, such as sewing machines, overlocking machines, irons, and a fusing press</li> <li>• Select the appropriate tool or equipment for the task</li> <li>• Use all machinery safely and in accordance with the manufacturer's instructions</li> <li>• Conduct trials to ensure that the machine settings are appropriate for fabrics being used and the application</li> <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 Specification. The Test Project is the assessment vehicle for the skill competition, and also follows the Standards Specification. The CIS enables the timely and accurate recording of marks, and has expanding supportive capacity.

The Marking Scheme, in outline, will lead the process of Test Project design. After this, the Marking Scheme and Test Project will be designed and developed through an iterative process, to ensure that both together optimize their relationship with the Standards Specification 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 Specification.

Prior to submission for approval to WSI, the Marking Scheme and Test Project will liaise with the WSI Skill Advisors in order 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 standards that represent the skill. It is designed to allocate marks for each assessed aspect of performance in accordance with the weightings in the Standards Specification.

By reflecting the weightings in the Standards Specification, the Marking Scheme establishes the parameters for the design of the Test Project. Depending on the nature of the skill 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 Specification, if there is no practicable alternative.

The Marking Scheme and Test Project may be developed by one person, or several, or by all Experts. The detailed and final Marking Scheme and Test Project must be approved by the whole Expert Jury prior to submission for independent quality assurance. The exception to this process is for those skill competitions which use an independent designer for the development of the Marking Scheme and Test Project. Please see the Rules for further details.

Experts and independent designers are required to submit their Marking Schemes and Test Projects for comment and provisional approval well in advance of completion, in order to avoid disappointment or setbacks at a late stage. They are also advised to work with the CIS Team at this intermediate stage, in order to take full advantage of the possibilities of the CIS.

In all cases a draft Marking Scheme must be entered into the CIS at least eight weeks prior to the Competition using the CIS standard spreadsheet or other agreed methods.

### 4.2 ASSESSMENT CRITERIA

The main headings of the Marking Scheme are the Assessment Criteria. These headings are derived in conjunction with the Test Project. In some skill competitions the Assessment Criteria may be similar to the section headings in the Standards Specification; in others they may be totally 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 Specification.

Assessment Criteria are created by the person(s) developing the Marking Scheme, who are free to define 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). It is advisable not to specify either the Assessment Criteria, or the allocation of marks, or the assessment methods, within this Technical Description.

The Mark Summary Form generated by the CIS will comprise a list of the Assessment 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) specified 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, or instructions for how the marks are to be awarded. Aspects are assessed either by measurement or 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 skill in the Standards Specification. 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)

	CRITERIA								TOTAL MARKS PER SECTION	WSS 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, in all circumstances. The marking teams must be organized to ensure that there is no compatriot marking in any circumstances. (See 4.6.)

## 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, with a fourth to coordinate the marking and acting as a judge to prevent compatriot marking.

## 4.7 ASSESSMENT AND MARKING USING MEASUREMENT

Three Experts will be used to assess each aspect. 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.

## 4.8 THE USE OF MEASUREMENT AND JUDGEMENT

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

## 4.9 COMPLETION OF SKILL ASSESSMENT SPECIFICATION

### 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 co-ordination;
- 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

Prior the Competition, the Chief Expert and the 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 will be marked by teams according to criteria set, e.g. measurements, as detailed in paragraph 4.8.

Judgement marking will be 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 skills in each section of the WSSS.

The purpose of the Test Project is to provide full, balanced and authentic opportunities for assessment and marking across the Standards Specification, in conjunction with the Marking Scheme. The relationship between the Test Project, Marking Scheme and Standards Specification 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 Specification or affect the balance of marks within the Standards Specification other than in the circumstances indicated by Section 2.

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.

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 Specification. Section 2.1 refers.

### 5.2 FORMAT/STRUCTURE OF THE TEST PROJECT

The format of the Test Project is a single Test Project with separately assessed modules.

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

- The Test Project must reflect industry best practices as outlined in the WSSS;
- 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

### 5.3 TEST PROJECT DESIGN REQUIREMENTS

- 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 WSSS

## 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 the Skill Management Team.

### 5.4.2 How and where is the Test Project or modules developed

Test Project is developed at the Competition Preparation Week using randomized module components.

### 5.4.3 When is the Test Project developed

The Test Project is developed according to the following timeline:

TIME	ACTIVITY
Six (6) months prior to the Competition	Test Project is uploaded to the Discussion Forum
Two (2) months prior to the Competition	The Marking Scheme is uploaded to the forum for discussion.
One (1) month prior to the Competition	Discussion ends and the Marking Scheme is finalized and uploaded to the CIS.

## 5.5 TEST PROJECT VALIDATION

The Director of Skills Competitions must approve the Test Project concept and format before it is uploaded to the forum for Experts consideration.

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

## 5.6 TEST PROJECT SELECTION

Final elements for each of the modules of the Test Project will be selected randomly by ballot draw at the Competition.

## 5.7 TEST PROJECT CIRCULATION

The Test Project is circulated via the website as follows:

Six months before the current Competition.

## 5.8 TEST PROJECT COORDINATION (PREPARATION FOR COMPETITION)

Coordination of the Test Project will be undertaken by the Skill Competition Manager.

## 5.9 TEST PROJECT CHANGE AT THE COMPETITION

Due to the Test Project being circulated to Competitors six months prior to the Competition it is necessary for the Test Project modules and associated marking scheme to contain at least 30% mystery modules or modules with random elements.

## 5.10 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.

- The Competition Organizer will provide contact details of suppliers or agents for the fabric at least three 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
- Marking Schemes
- Test Projects
- 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)).

## 7 SKILL-SPECIFIC SAFETY REQUIREMENTS

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

The following skill-specific safety requirement must also be adhered to:

- The electrical cords should not be in the way and must be taped to the floor and the table;
- 1000 lux lighting over all work areas;
- Competitor must have hair tied back and secure and wear closed shoes;
- No hanging jewellery;
- Head scarves must be secured close to the body.

## 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 Experts for the next Competition. The Competition Organizer will progressively update the Infrastructure List specifying the actual quantity, type, brand, and model of the items. Items supplied by the Competition Organizer are shown in a separate column.

At each Competition, the Experts must review and update the Infrastructure List in preparation for the next Competition. Experts 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 COMPETITOR'S TOOLBOX

Competitors are allowed a maximum of one toolbox which should not exceed 0.1 cubic metre.

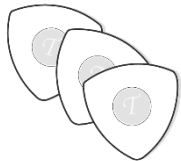
That is, toolboxes dimensions including all contents will be measured. Dimensions must not exceed length x width x height = 0.1

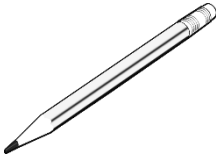




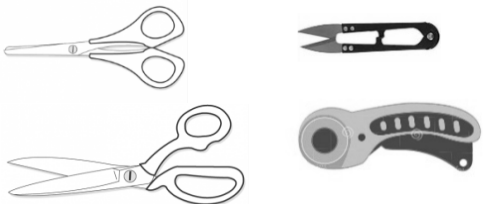
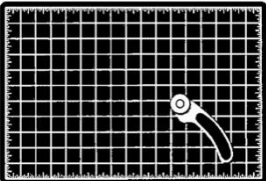
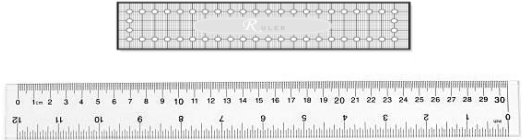
E.g.  $0.7 \times 0.4 \times 0.35 = 0.1$  cubic metre.

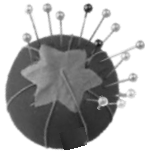




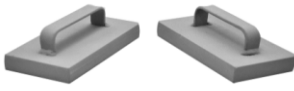


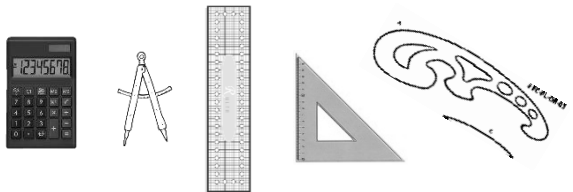
If competitors bring additional tools other than the tools shipped, they must fit into this toolbox.

### 8.3 MATERIALS, EQUIPMENT, AND TOOLS SUPPLIED BY COMPETITORS IN THEIR TOOLBOX









Competitors may bring the following items in their toolbox.

DESCRIPTION	PHOTO
Tailor's chalk	

DESCRIPTION	PHOTO
Pencils	
Tracing wheel and tracing paper	
Blank/plain A4 sheets of acrylic card or cardboard for templates (max. two sheets) including carbon paper	
Thimble	
Awl	
Scissors (paper, fabric, thread cutter/clipper, electric scissors or rotary cutter)	
Cutting mat for rotary cutter	
Rulers	

DESCRIPTION	PHOTO
Pins	
Stitch ripper	
Magnetic edge-guide	
Hand sewing needles	
Pressing equipment (pressing cloth, hams, bias tape maker etc.)	
Weights	
Clock/Timer	
A selection of drawing tools (felt tip pens, etc.)	
Patternmaking construction tools (calculator, compass, rulers, set square, curves etc.)	



DESCRIPTION	PHOTO
Pattern stamp (standard – size, style, cutting only)	 <div data-bbox="1007 353 1145 465" style="border: 1px solid gray; padding: 5px; margin-left: 10px;">       Size :        Style :        Cutting :     </div>
Loop turner	
Point turner	
Screwdrivers and Pliers	
Thermal cutter	
Lint brush/roller	
Water spray bottle	
Buttonhole punch	

DESCRIPTION	PHOTO
Tapes - for draping and patternmaking - bolduc tape, cotton tape, masking tape, clear tape.	

This list is a suggestion of tools for Competitors to bring however it is not exclusive. Competitors must ensure that all their tools fit within the toolbox size as above.

Experts will check the toolbox twice 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.

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

**Fusing presses are also shared equipment.**

## 8.4 MATERIALS, EQUIPMENT, AND TOOLS SUPPLIED BY EXPERTS

Not applicable.

## 8.5 MATERIALS AND EQUIPMENT PROHIBITED IN THE SKILL AREA

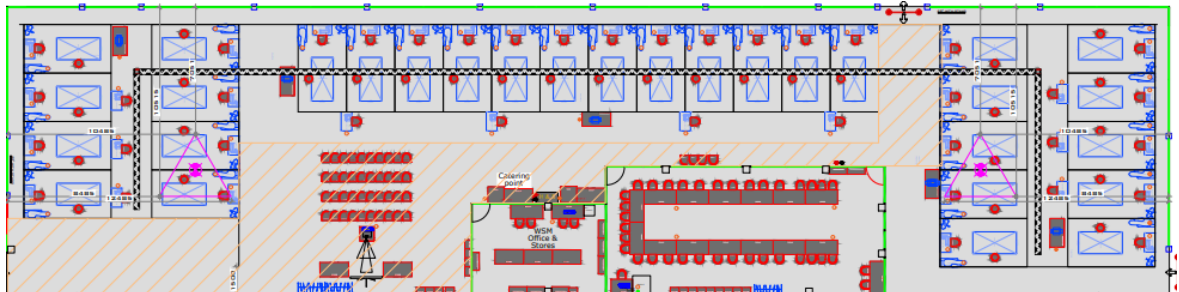
Competitors are not allowed to bring ANY kind of fabric, trims, notions, or thread to Familiarization Day or the Competition days.

Competitors are not allowed to bring any kind of pattern pieces, or 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/after the competition.

## 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 work flow, and documentation management and distribution.

TOPIC/TASK	SKILL-SPECIFIC RULE
Use of technology – USB, memory sticks	<ul style="list-style-type: none"> <li>Competitors are not allowed to bring memory sticks into the workshop.</li> <li>Experts and Interpreters are allowed to bring memory sticks into the workshop for translation purposes only. CE and DCE may use memory sticks for presentation purposes also. In these cases the memory stick must remain locked in the workshop until the end of C4.</li> </ul>
Use of technology – personal laptops, tablets and mobile phones	<ul style="list-style-type: none"> <li>Experts and Interpreters are allowed to use personal laptops, tablets and mobile phones in the Expert room only and they must remain in the workshop in the locker until the end of C4.</li> <li>Competitors are not allowed to use personal laptops, tablets, mobile phones or music devices.</li> </ul>
Use of technology – personal photo and video taking devices	<ul style="list-style-type: none"> <li>Competitors, Experts, and Interpreters are allowed to use personal photo and video taking devices in the workshop at the conclusion of the competition 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>
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> </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> </ul>
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>
Health, Safety, and Environment	<ul style="list-style-type: none"> <li>Refer to the WorldSkills Health, Safety, and Environment policy and guidelines document.</li> </ul>
Test Project	<ul style="list-style-type: none"> <li>The Competitor is not allowed to take any part of the Test Project or any material out of the competition site.</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/after the competition.</li></ul>
-----------	--

## 10 VISITOR AND MEDIA ENGAGEMENT

To maximize visitor and media engagement the following ideas will be considered:

- 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 Standards Specifications 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 Standards Specification 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 WSSS 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>

Adjacent occupations can also be explored through these links.

The following table indicates which organizations were approached and provided valuable feedback for the Description of the Associated Role and WorldSkills Standards Specification in place for WorldSkills Kazan 2019.

ORGANIZATION	CONTACT NAME
The London College of Fashion (London University of the Arts) (UK)	Emma Shackleton, Lecturer
The Pattern Room (Australia)	Julia van der Sommen, Director