

# WORLDSKILLS STANDARD SPECIFICATION

Skill 11

Print Media Technology





# THE WORLDSKILLS STANDARDS SPECIFICATION (WSSS)

## 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 not be separate tests of knowledge and understanding.

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. 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.



# WORLDSKILLS STANDARDS SPECIFICATION

SECTION		RELATIVE IMPORTANCE (%)
<b>1</b>	<b>Work organization and management</b>	<b>5</b>
	<p>The individual needs to know and understand:</p> <ul style="list-style-type: none"> <li>• The types of equipment used to produce printed material and to create finished printed products</li> <li>• New technologies used in printing</li> <li>• Current legislation and best practice relating to health and safety procedures in the workplace and specifically relating to specialist equipment and print factors</li> <li>• The uses of protective equipment and materials</li> <li>• The importance on maintaining cleanliness and order in the working environment</li> <li>• The handling of chemicals used in the print industry and how waste materials should be disposed of</li> <li>• The importance of effective communication skills and team work</li> <li>• Recognized international standards, for example ISO, GRaCOL and Pantone</li> </ul>	
	<p>The individual shall be able to:</p> <ul style="list-style-type: none"> <li>• Use all equipment correctly according to manufacturers' instructions</li> <li>• Consistently apply and promote health and safety in the workplace and especially relating to specialist equipment and print factors</li> <li>• Effectively use protective equipment and materials</li> <li>• Maintain a clean and ordered working environment</li> <li>• Handle all chemicals and dangerous materials safely and in accordance with instructions</li> <li>• Dispose of waste materials safely and consistently with maintaining a safe and sustainable environment</li> <li>• Select equipment appropriate for the planned task</li> <li>• Use, handle, store and maintain print factors such as ink, paper and mechanical and digital equipment</li> <li>• Proactively maintain continuous professional development in order to keep up to date with new technologies and trends in the printing industry</li> <li>• Save digital files in proper formats to assure seamless workflow</li> <li>• Quality assure and check all work to verify and adjust details in the quality of the printed work and to ensure that it meets customer's expectations and high standards</li> <li>• Communicate effectively with team members and other colleagues in the work place to ensure a good and productive working environment</li> <li>• Discuss client's requirements and provide expert advice and guidance on printing technology, its possibilities and limitations</li> <li>• Work in such a way as to avoid unnecessary waste</li> </ul>	



2	Planning and Preparation	25
	<p>The individual needs to know and understand:</p> <ul style="list-style-type: none"> <li>• The characteristics of the Offset Printing, toner-based and ink-jet digital materials</li> <li>• The characteristics, uses and interaction of papers, inks, dampening solution, toners and proofing materials</li> <li>• Appropriate chemicals needed for the planned print job</li> <li>• The theory of colours</li> <li>• How to read, understand and analyse a customers' brief</li> </ul>	
	<p>The individual shall be able to:</p> <ul style="list-style-type: none"> <li>• Read, understand and interpret a print job brief</li> <li>• Explain to colleagues the content of the brief and plan work for self and others accordingly</li> <li>• Mix custom ink colours to meet customer's specifications</li> <li>• Select and prepare the appropriate printing equipment for the planned job</li> <li>• Programme machinery for correct number of copies, paper size, colour, quality etc.</li> <li>• Perform make-ready operation and adjustment on multi-colour sheet-fed offset press, either with or without remote control consoles</li> <li>• Select and prepare the appropriate print factors, paper, ink etc. for the planned job</li> <li>• Interpret the colour imprint on the printed sheet during make-ready and production</li> <li>• Translate the interpretation of the colour imprint into appropriate action on the press</li> <li>• Use digital printing press RIP (Raster Image Processor) software for file set-up operations like checking/creating, imposition and colour management</li> <li>• Load paper sheets and fill ink ducts</li> <li>• Adjust the feeder, sheet transfer and delivery</li> <li>• Mount offset printing plates</li> <li>• Adjust offset printing pressure</li> <li>• Mix necessary ink colours and adjust the colour register</li> </ul>	
3	Press Run	25
	<p>The individual needs to know and understand:</p> <ul style="list-style-type: none"> <li>• Different types of press,, their uses and characteristics</li> <li>• Developing technology that supports the printing process</li> </ul>	
	<p>The individual shall be able to:</p> <ul style="list-style-type: none"> <li>• Print a specific amount of printed products on the sheet-fed offset press according to the quality and technical criteria set, industry standard and standard required by the customer</li> <li>• Use presses with either semi-automatic or automatic plate mounting</li> <li>• Use variable data software for digital printing</li> </ul>	



4	Quality Control and Adjustments	25
	<p>The individual needs to know and understand:</p> <ul style="list-style-type: none"> <li>• Different types of specialist measuring equipment used in printing</li> <li>• How to interpret measuring results</li> <li>• The importance of ensuring that the print job is of a high standard and meets the customers' needs and expectations</li> </ul>	
	<p>The individual shall be able to:</p> <ul style="list-style-type: none"> <li>• Monitor the printing process, ensuring that the work is reaching the expected standard</li> <li>• Adjust settings and programming to maintain quality and to rectify and discrepancies from the specification</li> <li>• Operate measuring and quality control devices</li> <li>• Use different measuring devices like densitometer, spectrophotometer, micrometre, calliper, ph, conductivity etc.</li> <li>• Produce Approved Proof (AP) for customer confirmation and approval</li> <li>• Save individual sheets as prescribed through the print run to quality assure against the original</li> <li>• Compare proof prints to specified targets and make necessary adjustments</li> <li>• Produce print jobs to a specified numerical density and/or LAB target</li> <li>• Maintain the correct colour registration</li> </ul>	
5	Finishing	5
	<p>The individual needs to know and understand:</p> <ul style="list-style-type: none"> <li>• Various processes that may be applied to printed work to finish the product such as folding, cutting and binding</li> </ul>	
	<p>The individual shall be able to:</p> <ul style="list-style-type: none"> <li>• Prepare a cutting plan</li> <li>• Finish printed work by trimming it with a paper cutter to specified dimensions</li> <li>• Programme and use a programmed paper cutter to cut paper to specified dimensions</li> <li>• Operate a paper folding machine as required for to meet the requirements of the specification</li> <li>• Operate a stitcher or perfect binding machine to produce bound printed works</li> </ul>	
6	Troubleshooting	10
	<p>The individual needs to know and understand:</p> <ul style="list-style-type: none"> <li>• The financial and virtual time reporting functions of SHOTS</li> <li>• Implications of faulty machinery or set-up in terms of loss of quality, time and money</li> <li>• Maintenance routines for printing equipment</li> <li>• The importance of following manufacturers' instructions</li> </ul>	



	<p>The individual shall be able to:</p> <ul style="list-style-type: none"><li>• Solve problems in the SHOTS print simulation programme</li><li>• Perform maintenance and basic repairs on offset presses and finishing equipment</li><li>• Resolve paper feed problems</li></ul>	
<b>7</b>	<b>Clean-Up</b>	<b>5</b>
	<p>The individual needs to know and understand:</p> <ul style="list-style-type: none"><li>• The advantages of working in a clean and ordered environment</li></ul>	
	<p>The individual shall be able to:</p> <ul style="list-style-type: none"><li>• Clean the equipment and premises after the offset, digital and finishing printing process</li><li>• Complete cleaning efficiently, effectively and within prescribed timescales</li><li>• Ensure that cleaning is completed to recognized standards</li><li>• Set back adjustments of the printing equipment to zero</li></ul>	