

WORLDSKILLS STANDARD SPECIFICATION

Skill 17
Web Design





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).

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 (%)
1	6
Work organization and management	
The individual needs to know and understand: <ul style="list-style-type: none">Principles and practices that enable productive team workThe principles and behaviour of systemsThe aspects of systems that contribute to sustainable products, strategies and practicesHow to take initiatives and be enterprising in order to identify, analyse and evaluate information from a variety of sources	



	<p>The individual shall be able to:</p> <ul style="list-style-type: none"> • troubleshoot common web design and development problems • Take into account time limitations and deadlines • Debug and handle errors • Use a computer or device and a range of software packages • Apply research techniques and skills to keep up-to-date with the latest industry guidelines • Plan each day's production schedule according to available time • Include linked images, fonts, native files and production file format when archiving 	
2	Communication and Interpersonal skills	6
	<p>The individual needs to know and understand:</p> <ul style="list-style-type: none"> • How to solve communication problems including identifying the problem, research, analysis, solution generating, prototyping, user testing and outcome evaluation • The principles underlying the collection and presentation of information • Design concepts and techniques including wire framing, storyboarding, and creating flowcharts • Principles and techniques for the design of information 	
	<p>The individual shall be able to:</p> <ul style="list-style-type: none"> • Deliver a product that responds to client requirements and specification • Gather, analyse and evaluate information • Use literacy skills to interpret standards and requirements • Use planning and organizational skills to conduct user analysis • Critique own draft ideas, colour and type choices 	
3	Website Design	22
	<p>The individual needs to know and understand:</p> <ul style="list-style-type: none"> • Issues related to the cognitive, social, cultural, technological and economic contexts for design • How to create graphics for the web • How to create a design using a provided brief and specification • How to follow design principles and patterns • Which skills are required to design to utilize of colours, typography and composition • Principles and techniques for adapting graphics for use in website layouts • Different target markets and the elements of design which satisfy each market • Protocols for maintaining a corporate identity, brand and style guide • The limitations of Internet enabled devices and screen resolutions • How to provide consistency and polish to a finished design • Principles of an aesthetically pleasing and creative design • Current design trends 	



	<p>The individual shall be able to:</p> <ul style="list-style-type: none"> • Create, analyse develop visual response to communication problems, including understanding hierarchy, typography, aesthetics and composition • Create, manipulate and optimize images for the internet • Analyse the target market and the product being delivered • Select an idea that is most appropriate to the target market • Take into consideration the impact of each element that is added during the design process • Use all the required elements to create the design • Respect existing corporate identity guidelines and style guides • Create responsive designs that function correctly on multiple screen resolutions and/or devices • Keep the original design concept and amplify its visual appeal • Transform an idea into an aesthetically pleasing and creative design 	
4	Website Layout	22
	<p>The individual needs to know and understand:</p> <ul style="list-style-type: none"> • Best practice for accessibility and communicating with audiences with special needs • World Wide Web Consortium (W3C) standards for HTML and CSS • Website layout methods and standard website structures • Web accessibility initiative (WAI) • How to identify appropriate CSS rules and selectors to be applied to obtain the desired result • How to identify requirements for people with disabilities, including visual, auditory, physical, speech, cognitive, and neurological disabilities • Best practices for Search Engine Optimization (SEO) • How to embed and integrate animations, audio and video 	
	<p>The individual shall be able to:</p> <ul style="list-style-type: none"> • Use problem-solving skills to accommodate user groups with special needs • Use CSS in the most efficient and effective way for consistency between web browsers • Create web pages that function on a variety of devices and screen resolutions • Maintain consistency of layouts on multiple screen resolutions • Create websites that comply with current W3C standards (http://www.w3.org) and current W3C last call drafts. • Use CSS or other external files to modify the appearance of the website • Create and update websites to assist with Search Engine Performance • Create code that conforms and validates to the W3C standards 	
5	Client Side	22
	<p>The individual needs to know and understand:</p> <ul style="list-style-type: none"> • How to integrate JavaScript • How to create code with Open Source Libraries and Frameworks 	



	<p>The individual shall be able to:</p> <ul style="list-style-type: none">• Create website animations to assist in context explanations and adding visual appeal• Create and update JavaScript code to enhance a websites functionality and aesthetics• Add interactivity to websites	
6	Server Side	22
	<p>The individual needs to know and understand:</p> <ul style="list-style-type: none">• How to develop PHP (Hypertext Pre-processor) code• How to utilize Open Source server side Libraries and Frameworks• Data-modelling techniques to design and implement databases with MySQL• FTP (File Transfer Protocol) server and client relationships and software packages.• How to implement web services using PHP, XML (Extensible Markup Language) and JSON• Programming control structures (object-oriented programming)• How to develop code that follows design pattern (E.g.; MVC (Model View Controller))• How to create secure web applications	
	<p>The individual shall be able to:</p> <ul style="list-style-type: none">• Develop and design database queries and web services to match client requirements• Deliver a robust solutions to fulfil specific database requirements• Translate an ER (Entity-Relationship) diagram into a functioning database• Create an SQL (Structured Query Language) statements using correct syntax• Protect against security exploits• Integrate with existing code with API (Application Programming Interfaces), libraries and frameworks• Develop object-oriented code	