2022 REGIONAL PRE-COMPETITION PACK

CYBER SECURITY

worldskills
Australia

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INTRODUCTION

Welcome to the WorldSkills Australia 2022 Regional Competition in **CYBER SECURITY.**

Worldskills Australia is a social enterprise that passionately believes skills drive the future of young people, and of Australia.

We are part of an International Worldskills movement.

We have been enabling young people to showcase their trade and skills talents since 1981. WorldSkills Australia aims to encourage Australians to celebrate vocational education and training, shift perceptions and create the understanding that to learn a skill, to choose a skills-based career, is one of the most important decisions a young person and their family will ever make.

Our skills-based competitions operate at regional, national and international levels, and are aligned to National Training Packages, Apprenticeships Australia and Jobs Australia schemes.

The Regional Competition is a one-day competition and the first step on your journey with WorldSkills Australia, that could lead to you competing at the National Championships and depending on eligibility International Championships and Scholarship pathways. https://www.worldskills.org.au/what-we-do/worldskills-australia-competitions/

The following information is for competitors, organisers and judges to assist in preparation for the competition. This document will provide important information such as competition information, required tools and equipment, work health and safety policies and the WorldSkills Australia Code of Conduct.

Please read the information carefully.

Cloud Computing will be run during Virtual Skills Week 22 – 26 August 2022.

- Registrations will open in June for the Competitions on WSA website www.worldskills.australia.org.au
- The competition will be run on the same day across Australia
- The information provides an overview of the competition and once registered will receive more information.

Best of luck at the competition!

Questions?

Key Contact Details:

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COMPETITION ASSESSMENT CERTIFICATE

The 2022 WorldSkills Australia Regional Competition for **CYBER SECURITY** aligns to the National Training Package ICT Information and Communications Technology and the following Units of Competency (Elements of Competency and Performance Criteria) contained in the ICT50220 Diploma in Information Technology (Cyber Security Specialisation) Qualification.

UNIT CODES	UNIT NAME	ELEMENTS	REGIONAL MARKING SECTION ALIGNMENT
			A
ICTCYS402	Identify and confirm cyber security incidents	• Identify cyber security incidents • Confirm cyber security incidents	X
ICTCYS407	Gather analyse and interpret threat data	• Gather threat data • Analyse threat data • Interpret and finalise threat data	X
ICTCYS610	Protect critical infrastructure for organisations	• Implement protection strategy • Test implementation outcomes	X
ICTCYS613	Utilise design methodologies for security architecture	• Design security architecture • Finalise security architecture	X
ICTSAS524	Develop, implement and evaluate an incident response plan	• Develop the incident response plan • Implement the incident response plan • Evaluate incident response plans	X
ICTSAS526	Review and update disaster recovery and contingency plan	• Evaluate systems threats • Formulate prevention and recovery strategy • Develop disaster recovery plan	X

INDUSTRY ENDORSEMENT

WorldSkills Australia is committed to ensuring that the Regional Competition reflects the current Industry best practice as well as alignment to the National Training Packages.

The following table indicates which organisations provided valuable feedback and endorsed the 2022 WorldSkills Australia Regional Competition.

ORGANISATION	CONTACT NAME
Keysight Technologies	

COMPETITION PROJECT WRITERS

WorldSkills Australia would like to thank the following volunteers who contributed to the writing of the 2022 Regional Competition.

ORGANISATION	CONTACT NAME
Keysight Technologies	

COMPETITOR INFORMATION

Cyber security knowledge is becoming essential nowadays for people who want to build a successful career in any IT field. This test project contains a lot of challenges from real life experience, primarily IT integration and IT outsourcing. If you can complete this project with the high score, you are ready to adopt enterprise security policies to the infrastructure for any multi-branch enterprise.

COMPETITION DESCRIPTION

Keysight Technologies are pleased to be supporting the WorldSkills Australia Cyber Security Skill Regional Event for 2022.

- This competition is a team event – with a red and a blue member. This unique competition environment gives the participants the chance to understand, learn and analyse the different kind of Attack and Defence techniques by active playing the role of RED (Attacker) and BLUE (Defender) and in doing so find different kinds of flags based on different difficulty and earn points. [Switching roles between red/blue team member in the same team is allowed].

REQUIRED SKILLS

- Knowing both the Attack/Defence methods and getting in that mindset ultimately prepares the participants for the real world where, there are lot of variables and unknown and they need to protect their network and assets against any network and cyber security threats possible.

- Every team will be given jump machine and the details on how to access the Jump machine will be communicated once registered

UNIFORM

On the day of the competition, all competitors are required to wear the following:

- Industry appropriate clothing
- Closed in shoes

AS THE EVENT IS COMPLETELY VIRTUAL YOU WILL NEED THE FOLLOWING :

- A computer running Linux
- A modern browser, preferably Chrome or Firefox
- A microphone or headset
- An internet connection

Tools for the Red and Blue Members would include:

- Kali Linux
- Target machines
- Next Generation Firewall
- SIEM – Monitoring Tool
- Realtime Scoring System

Some regions may elect to bring students into a class environment on the day of competition to provide local on the ground support, however you can also join remotely.

COMPETITION TIME

TIMETABLE

The competition time is 6 hrs not including briefing or breaks. The below are suggested starting times that can be adapted to suit local competitions – however competition time/tasks must remain as per competition requirements.

Times will be dependent on local time zones – so this will be provided prior to the competition

START	END	DETAIL	TOTAL
		Briefing and check all are online	30 mins
		Competition	2 hrs
		Break	15mins
		Competition	2 hrs
		Break	30 mins
		Competition	2hrs
		Debrief	30 mins

BRIEFING

There will be a 30-minute briefing of the project prior to the competition commencing.

The briefing will include:

- Competition information
- Introduction of judges
- Detailed information on the design brief
- Answer any questions

ORGANISERS INFORMATION

The competition organisers should work together with their Regional Committee to:

- Confirm the date for the Regional Competition and promote participation to RTO's, Industry and Employers in their region via the links on the website for Virtual Competition
- Ensure competitors and judges have been provided all the information regarding the Competition day including location, time, availability of food/drinks for breaks etc if attending at a campus
- Coordinate presentation date/time for certificates and medals

MARKING PROCEDURE

- The marking procedure will be via Keysight technologies and with final marks entered into database as a mark /100

MARKING PROCEDURE USING MEASUREMENT:

Used to assess accuracy, precision and other performance which can and should be measured in a robust way. It is used where there should be no ambiguity.

- Min 2 judges in marking team, with an independent judge where required to prevent judges marking own competitor
- Judges in judging team must mark together and agree on one combined score per competitor per aspect

Measurement based marks should be given a YES or NO

Example 1:

Criteria H1: Has the competitor maintained a tidy and safe work area during the competition

The judges in the judging team must agree that each competitor has or has not maintained a tidy and safe work area

If the judges agree to a **YES** - the competitor will be awarded 2 marks

If the judges agree to a **NO** – the competitor will be awarded 0 marks (no half marks can be awarded)

In the event of the judging team not being able to agree on a mark, the Chief Judge will have the casting decision based on feedback from the judges.

ASPECT ID	MAX MARK	SUB CRITERIA H1	COMPETITOR 1	COMPETITOR 2
1	2	Has the competitor maintained a tidy and safe work area during the competition? Yes/No	2	0

MARKING SUMMARY

Marks from the marking scale should be transferred to the Mark Summary form.

One Marking Summary Form per competitor

MODULE	CRITERIA	MARK
A	Capture the Flag	100.00
		100.00

2022 REGIONAL COMPETITION RULES

1. **ACCESS TO THE REGIONALS**

    1.1. There is no age restriction for the Regional Competition, how-ever to progress to the National Championships in 2023 competitors must be born on or after 1 January 1999 and be an Australian citizen or resident.

    1.2. Competitors should meet at least one of the following criteria for the skill they intend to compete in:

    - Be undertaking an apprenticeship or traineeship
    - Be undertaking studies towards a qualification at an RTO/TAFE/University
    - Undertaken/completed qualification at an RTO/TAFE/University

    1.3. Competitors should either work, live or study in the region where they compete

    1.4. When a Skill is not being run in a region, or where nominations are closed, it is permissible for competitors to participate in another region running that Skill.

    1.5. Past regional and national competitors (except national competition gold medallists and Skillaroo members) may enter again.

    1.6. Competitors are not permitted to enter the same skill more than one time in the same year (i.e. cannot enter the same skill in more than one region).

    1.7. Competitors must be issued WSA regional project, competition date, start and finish times at least 24 hours prior to the commencement of their competition.

2. **DURING THE COMPETITION**

    2.1. Competitors who arrive late for the competition will not receive additional time.

    2.2. Competitors must be briefed during a familiarisation period prior to the start of the competition.

    2.3. Judges will announce competitors start and finish times on the day.

    2.4. Competitors are to be reminded to commence their job plan as part of familiarisation.

    2.5. Equipment and materials may be tested during the familiarisation session by competitors.

    2.6. Should a competitor feel at a disadvantage for any reason prior to or during the competition, the competitor should bring it to the chief judge's attention immediately.

    2.7. The competition project must be run as per suggested project guidelines and tasks

    2.8. During the competition, competitors are not permitted to speak to other competitors or members of the public.

    2.9. Competitors wishing to leave the competition area during work time must seek the permission of the Judges.

    2.10. Competitors who need to repair their own tools or equipment during the competition will not receive any additional time.

    2.11. Outside the competition (break time etc…), competitors must not discuss their competition projects or seek advice.

    2.12. Competitors are not permitted to take pre-written notes, sketches, special aids or other information relevant to the project into the competition area, unless these are specified in the project information.

3. **WORK, HEALTH & SAFETY**

    3.1. Competition organisers will ensure a COVID safety plan is in place for the workplaces and premises and conduct a risk assessment when planning and on the day of the competition that includes:

    - Provision of appropriate signage, barriers and sanitiser stations
    - Well-being of staff and all attendees
    - Physical distancing
    - Hygiene and cleaning
    - Record Keeping

    3.2. A safety check of the work site must be undertaken prior to commencement of competition by the Chief Judge.

    3.3. All competitors, judges and volunteers are to receive a site induction prior to the competition.

    3.4. Competitors are required to wear appropriate work clothing, and safety items such as protective

glasses, boots and earmuffs, where applicable.

3.5. All competitors are required to complete a Safe Work Method Statement prior to the competition (unless it is a required component of the competition).

3.6. Safe work practices must be adhered to at all times, in line with the completed Safe Work Method Statement.

3.7. Competitors must read and abide by the WorldSkills Australia Code of Conduct and the WorldSkills Australia Alcohol and Drug Management Policy.

3.8. Any safety incidents must be reported to the chief judge.

4. POST COMPETITION

4.1. Competitors will receive mark summary forms from the competition organisers.

4.2. The judges' decision will be final, unless a grievance procedure has been lodged (refer section 5 Regional Grievance Procedure). There will be no appeals once the results are announced.

5. REGIONAL GRIEVANCE PROCEDURE

5.1. In the first instance complaints should be referred to the chief judge of the skill concerned.

5.2. In the event that satisfactory resolution cannot be achieved, the grievance will be heard by a Grievance Committee of that Region/Organisation.

5.3. The Regional Grievance Committee should comprise of:

- Chairperson of Regional Committee or their representative or if Industry group – CEO or HR Manager
- Independent person from an unrelated skill or State and Territory Manager and
- A nominated representative (industry related) of the complainant if required.

The Regional Grievance Committee decision will be final.

WORK HEALTH & SAFETY POLICY

It is WorldSkills Australia's policy that each of its employees, volunteers, organisers, judges and competitors will be provided with a safe and healthy place in which to operate. To achieve this policy, WorldSkills Australia will make every reasonable effort in the areas of accident prevention, promotion and compliance with relevant Australian work health and safety legislation. These aspects of working conditions will be given priority in organisational plans, procedures, programs and job instructions.

Health and safety at work and at competitions and events is both an individual and shared responsibility of ALL employees, volunteers, organisers and competitors.

COVID SAFE

Competition organisers will ensure a COVID safety plan is in place for the workplaces and premises and conduct a risk assessment when planning and on the day of the competition that includes:

- Provision of appropriate signage, barriers and sanitiser stations
- Well-being of staff and all attendees
- Physical distancing
- Hygiene and cleaning
- Record Keeping
  Please refer to relevant State Documentation and/or workplace COVID Safety plans where competition is being held.

  Suggested sites:
  https://www.safeworkaustralia.gov.au/collection/covid-19-resource-kit
  https://www.health.gov.au/resources/publications/3-step-framework-for-a-covidsafe-australia

TEST AND TAG

Competitors are required to have all of their 240-volt electrical equipment tested and tagged prior to the competition by an approved electrical appliance tester. No competitor will be permitted to use any 240-volt electrical equipment unless it has a current test tag attached.

Organisers are required to have all supplied 240 volt and 415-volt electrical equipment tested prior to the competition by an approved electrical appliance tester. No electrical appliances provided by the competition organisers is to be used by competitors unless a current test tag is attached.

DEMONSTRATE GOOD HOUSEKEEPING

Competitors are required to properly manage their work space including minimising waste, preventing unavoidable power or gas consumption and effectively using materials and tools.

WORK METHOD STATEMENT

A Work Method Statement is a written document that describes the work to be carried out during the competition, outlines the hazards involved with the work, lists the control measures for each hazard identified and specifies who is responsible for the control measures. Each competitor must complete a Work Method Statement in preparation for the competition to ensure that they fully understand the safety risks associated with their competition skill.

Completed Work Method Statements must be submitted to the Chief Judge prior to the start of the competition. No competitor will be allowed to compete unless a Work Method Statement has been completed and submitted.

A Work Method Statement is on the following page.

This policy is under constant review.

WORK METHOD STATEMENT

COMPETITOR NAME: _____

SKILL: _____DATE: _____

WORK ACTIVITY	POTENTIAL HAZARDS	HAZARD CONTROLS	RESPONSIBILITIES

DECLARATION

I confirm that I have been trained in the equipment required to compete and I have identified and addressed any potential hazards.

Name: _____

Signature: _____   Date: _____