

# 2022 Launch your Career in Cyber Security – Teacher’s guide



## Launch your Career in Cyber Security

**‘Launch your Career’ is a series of live virtual events connecting secondary students with industry to identify future career pathways.**

**Join us to get a first-hand look at the exciting career opportunities within the cyber security industry. Whether you are passionate about protecting the world against malicious cyber-attacks, learning about current and emerging cyber security threats or understanding risk mitigation strategies, you will discover how to pursue a career in cyber security.**

To facilitate the event, you will need a computer connected to a panel or a projector and speakers to successfully view the Virtual Forum. The event will be broadcast through Zoom, and the Zoom link will be supplied closer to the event. If you have not used Zoom before, we suggest following the instructions in [this guide](#) to install the Zoom Desktop Client.

## Launch your Career in Cyber Security aims to raise awareness of:

- How cyber security plays a key role in our future
- Working in dynamic teams in a cutting-edge field
- The amazing and diverse opportunities available and industry pathways supported by corporate businesses in Australia
- Study options at TAFE NSW and career opportunities and to
- Inspire students through introduction to industry role models and the opportunity to engage in motivational and insightful panel discussions.

**Date:** 15 March 2022

**Time:** 10:00 am – 11:00 am

**Registration:** <https://tafenswevents.eventsair.com/launch-your-career-in-cyber-security/lyccs/Site/Register>

The following information are suggested activities and resources to support 'Launch your Career' in Cyber Security, to enhance student outcomes.

## Pre-event activities

### Suggested technology-based classroom activities in the lead up to the forum:

The world needs cyber security professionals more than ever before. The world is becoming increasingly dependent on technology, and as a result, the number of cyber-attacks has increased dramatically in recent years. Countries worldwide have been investing heavily in cyber defence strategies to combat this issue, making cyber security professionals very much in demand.

### What is cyber security, and why do we need it?

Cyber security is the protection of computer systems and networks from information disclosure, theft of or damage to their hardware, software, or electronic data, as well as from the disruption or misdirection of the services they provide.

Cyber security is becoming increasingly significant due to the continuously expanding reliance on computer systems, the Internet and wireless network standards such as Bluetooth and Wi-Fi as well as growth of "smart" devices, including smartphones, televisions, and the various devices that constitute the "Internet of things". Cyber security is becoming increasingly important for protecting individuals, businesses, and governments as cybercriminals become more intelligent and cyber-attacks increase.

The world is so dependent on technology that cybercriminals have targeted an increasing number of people with cyber scams, online frauds, and ransom demands. Attacks on businesses have risen too — cybercriminals are now targeting the intellectual property of leading brands to steal information, leaving them exposed and open to cyber extortion.

Cyber-attacks have increased significantly, making cyber security a vital career pathway for the protection of individuals and companies in Australia.

## Cyber Facts



In 2019-2020, 94% of malware arrived on computers via email. Phishing was the number one type of social engineering attack accounting for more than 80% of reported incidents.



Cyber incidents involving insider threats has jumped 47% since 2018. Additionally, 90% of working adults use employer-issued devices for non-work related activities.



Over 16 billion records including credit card numbers, home addresses, and other sensitive information was exposed through data breaches since 2019. The first quarter of 2020 was one of the worst in data breach history with over 8 billion records exposed.



In 2019, an estimated 91% of people knew using the same password on multiple accounts was a security risk, yet 35% of people used weak passwords and 66% used the same password.



In 2020, it was estimated that a four-week digital interruption to Australia's economy, such as a widespread cyber attack, would cost the Australian economy up to AU\$30 billion or 1.5% of Australia's GDP and over 163,000 jobs.



- More than 80% of successful cyber attacks succeed due to a human element
- Phishing is the most common point of entry for successful cyber attacks

Download a classroom poster providing [10 tips for Cyber Security protection](#).



## Activities

- Ask students to interview or take an image of a person in the Cyber Security career field. This could be in the style of "A day in the life of...". Submit the best ones to your school magazine or showcase student work in your school library. [Permission to publish student work form](#).
- Invite students to get creative and 'think entrepreneurial' by pitching a product or group of products that demonstrate their future career or business ideas in Cyber security.
- Class discussion / debate to develop an understanding of the significance of Cyber Security, its importance in protecting our data from cyber attackers who want to steal this information and use it to cause harm. Identify what will happen if these systems, networks, and infrastructures don't have the right protection in place, our data might fall into the wrong hands.
- Display Cyber Security related [bullseye posters](#) from [myfuture](#).
- If there is a classroom in your school that is used for teaching technology, create a display area about careers and training in Cyber Security.
- Find more information about technology-related industries on [myfuture](#) or [Job Outlook](#) websites.
- Start a physical or electronic file of stories of people working in Cyber Security. They could be from local newspapers or magazines. Get other teachers in your department and students to look out for stories to add to the file.
- Cyber Security spans all industry areas. Investigate the influence and importance of Cyber Security in particular businesses, industries, or institutions.
- Identify the changes that have occurred in an industry or job as the result of Cyber security threats and attacks.
- Encourage students to get involved with an [entrepreneurial program](#) if these programs are running in your school.
- Invite a person who works in a Cyber Security related field to speak at Career information days, parent information nights and school assemblies. Ask them to talk about how their school learning helped them progress into their chosen field.
- Contact school alumni who may be studying a Cyber Security related course and invite them to speak to students about training and study options.
- Encourage students to compare technology-related courses at [TAFE NSW, University or Registered Training Organisation \(RTO\)](#), through [myskills](#) or [Course Seeker](#).
- Research the knowledge, skills, and qualifications needed by those involved in the Cyber Security different industries.

## Suggested tasks in preparation for the forum:

### Watch the following technology industry videos:

- [Getting Into Cyber Security: 5 Skills You NEED to Learn](#)
- [Australian Federal Police – Roles in Cybercrime](#)
- [Working in the Cyber Security industry](#)
- [Spam, viruses and destructive software](#)
- [Cyber attacks and Pen Testing](#)
- [Protecting Sensitive Information and Cyber Response Plans](#)
- [Cyber Security Industry and Technology](#)
- [Official launch of Australia's Cyber Security Sector Competitiveness Plan](#)
- [NAB Cyber Security Insights Webinar 2021](#)
- [How to recover your system from a Ransomware attack](#)

Prepare a quiz ([Kahoot](#), [Wooclap](#), [Mentimeter](#))

Class discussion – What opportunities are there in the technology industry?

Prior to the forum - What questions would you like to ask? (consider the pay? working conditions? Equity? Technology? Licensing? Global work opportunities?)

Teachers:

- Email student questions to [amy.greenshields1@det.nsw.edu.au](mailto:amy.greenshields1@det.nsw.edu.au) before the event.
- Organise a space to view the live broadcast with your students. Together with your technology administrator, ensure hardware and software is working prior to the event.

## Post-event activities and resources

Resources	
<a href="#">Top 10 Cyber Security Skills for beginners</a>	If you are a student interested in the field of Cyber Security, this blog will tell you everything you need to know regarding the skills required to take up cybersecurity as a career.
<a href="#">AUCyberExplorer</a>	AUCyberExplorer is an interactive data visualisation tool which enables growth in the Australian cyber security industry by providing visibility of detailed information about job supply, demand and career pathways. This tool can be used by current and future workers, educators and careers advisers to make informed decisions about entering, upskilling or planning in the industry.
<a href="#">Cisco Cyber Security courses</a>	Cybersecurity professionals who can protect and defend an organization's network are in high demand right now. Put your detective-like qualities to work by gaining knowledge toward a

## Resources

	career in fighting cybercrime.
<a href="#">Linked In Learning Cyber Security</a>	Looking to advance your career in cybersecurity? In this learning path, gather foundational knowledge—from non-technical skills to career path strategies—to continue your professional journey in security.
<a href="#">Grok Academy</a>	Grok Academy are a team of educators and software engineers who want to give everyone the power to code. They are passionate about teaching the next generation the skills they need to become the creators of tomorrow. Free courses available for school aged children interested in Cyber Security.
<a href="#">Cyber Security Awareness Resources - DoE</a>	Cyber Security NSW provides a range of cyber security awareness materials such as digital posters, and guidance materials. Topics covered include phishing, passwords, remote working and Wi-Fi security. If you would like additional information, please contact the Awareness, Training and Resilience team <a href="mailto:community@cyber.nsw.gov.au">community@cyber.nsw.gov.au</a> .
<a href="#">Cyber Safety – DoE</a>	Department of Education, Cyber safety intranet page. Learn how to keep yourself and your students safe online.
<a href="#">Safer internet day</a>	Resources for primary and high school classrooms to build safety online skills in students with interactive games and Minecraft Education Edition worlds.
<a href="#">Cybermarvel – Technology 4 Learning</a>	Build online safety and awareness in your school. Learn with videos, posters and research materials, view student challenge entries.
<a href="#">Ep. 10: Celebrating Safer Internet Day - THE VIRTUAL STAFFROOM</a>	Have you thought about your digital footprint? Join Kellie Britnell from the Office of the eSafety Commissioner as the team talk cookies, cyber safety, fake news and loads more!
<a href="#">Ep. 25: The Data Detective - THE VIRTUAL STAFFROOM</a>	Join the Virtual Staffroom team as they chat with Data Detective Chris Poulter from Open-Source Intelligence Combine as they explore how the power of data can positively impact the world.
<a href="#">(ISC)<sup>2</sup></a>	(ISC) <sup>2</sup> is an international, non-profit membership association for information security leaders, providing globally recognised certifications in cyber security.
<a href="#">Australian Information Security Association</a>	The Australian Information Security Association (AISA) is an Australian-based professional membership association, not-for-profit and peak industry body that seeks to facilitate the development of a robust information security sector by building the capacity of professionals in Australia and advancing the cyber security and safety of the Australian public as well as businesses and governments in Australia. AISA caters to all domains of the information security industry with a particular focus on sharing expertise from the field at meetings, focus groups and networking opportunities around Australia.

## Resources

<a href="#">CISSP – The World's Premier Cybersecurity Certification</a>	<p>Earning the CISSP proves you have what it takes to effectively design, implement and manage a best-in-class cybersecurity program. With a CISSP, you validate your expertise and become an (ISC)<sup>2</sup> member, unlocking a broad array of exclusive resources, educational tools, and peer-to-peer networking opportunities.</p>
<a href="#">CISM – Certified Information Security Manager</a>	<p>ISACA's Certified Information Security Manager (CISM) certification indicates expertise in information security governance, program development and management, incident management and risk management. Take your career from the technical realm to management!</p>
<a href="#">TAFE NSW cyber security micro credentials</a>	<p>A cyber security micro skills course is a fast and inexpensive way to sharpen existing skills and broaden professional knowledge. Courses have been designed by industry experts, in conjunction with NSW Cyber Security Innovation Node, to ensure that course content is modern, ultra-relevant, and teaches current skills using real-world examples. Courses can be completed in a matter of hours and combine to enhance industry experience, improve security expertise and protect networks that may be at risk of cyber-attack. By completing each course, participants will receive a certificate of completion, as well as a digital badge to promote their newly acquired skills.</p> <p>Upon completion of each course, participants will receive a certificate of completion, as well as a digital badge to promote their newly acquired skills.</p>
<a href="#">Australian apprenticeships</a>	<p>Students can find out more about becoming an apprentice.</p>
<a href="#">Australian apprenticeships pathways</a>	<p>The Australian Apprenticeships &amp; Traineeships Information Service - information for people considering career options, employers looking at recruitment and those providing support and advice. Resources include:</p> <ul style="list-style-type: none"> <li>• Job and training descriptions</li> <li>• Find my work type</li> <li>• Job pathways charts</li> <li>• Frequently asked questions</li> <li>• Australian school-based apprenticeships</li> <li>• Literacy and numeracy quizzes</li> </ul>
<a href="#">myfuture</a>	<p>As a class investigate the career bullseyes, students can explore the various pathways of interest.</p> <p>Worksheet myfuture overview PowerPoint</p>
<a href="#">National Careers</a>	<p>The National Careers Institute (NCI) was established to ensure people have access to authoritative and accurate careers</p>

## Resources

<a href="#">Institute</a>	information and support irrespective of their age or career stage. Their vision is to be Australia's recognised source of independent and impartial careers information.
<a href="#">Your Career</a>	The Your Career website is a platform of the National Careers Institute. It is designed to provide clear and simple careers information and to help people of all ages and circumstances better plan and manage their career.
<a href="#">myskills</a>	My Skills website is an Australian Government initiative to ensure training consumers have access to current, straightforward, independent and trustworthy Information to help them make choices about their training options. As the national directory of vocational education and training (VET) organisations and courses, My Skills strives to improve the quality and accessibility of information available for VET consumers and provides the ability to search for, and compare, VET courses and training providers.
<a href="#">School based apprenticeships and traineeships in NSW</a>	<p>School Based Apprenticeships and Traineeships are available to all Year 10, 11 and 12 high school students in NSW. They allow students to commence an apprenticeship or complete a traineeship while at school.</p> <p>A School Based Apprenticeship or Traineeship combines paid work, training and school; and as well as an industry recognised national qualification you will gain credit towards the HSC.</p> <p>Some apprenticeships and traineeships can contribute towards the ATAR.</p>
<a href="#">TAFE NSW</a>	TAFE NSW offers a range of courses for people to become qualified in cyber security occupations. This includes cyber and network security, software development, data engineering, cloud technology and information technology.
<a href="#">Wayfinder career map for women</a>	Explore career opportunities in the technology industry (consider entry requirements, training, skills, licensing, restrictions (e.g., criminal records working in banking, government, security)).

## 2022 'Launch your Career' in Cyber Security, event hosts

**2022 Launch your Career in Cyber Security is hosted by the following industry partners:**

<b>TAFE NSW</b>	<a href="https://www.tafensw.edu.au/">https://www.tafensw.edu.au/</a>
<b>NSW Department of Education</b>	<a href="https://education.nsw.gov.au/">https://education.nsw.gov.au/</a>
<b>RIEP</b>	<a href="https://www.training.nsw.gov.au/programs_services/riep/">https://www.training.nsw.gov.au/programs_services/riep/</a>
<b>INVESTMENT NSW</b>	<a href="https://www.investment.nsw.gov.au/">https://www.investment.nsw.gov.au/</a>

## For more information

Contact Amy Greenshields [amy.greenshields1@det.nsw.edu.au](mailto:amy.greenshields1@det.nsw.edu.au) or 0447 229 421 for inquiries and further information.