

Student Program Information 2019



Advanced Diploma of Network Security (ICT60215)

The recommended Diploma study plan has the following key features:

- > The recommended study plan will take a new student 24 months to complete.
- > There is a focus on latest network technologies including Microsoft, Cisco Security and Aruba Wireless
- > There is a focus on Industry certifications and students will have the opportunity to gain a number of Industry certificates as well as the TAFE Advanced Diploma.
- > Student will be able to obtain a number of Skill sets without having to complete the whole certificate.

SUBSIDISED TRAINING

- > You may be eligible for government subsidised training based on your employment and training level.
- >
- > For full details, including visa eligibility, please see the [Skills SA website](#)
- >
- > While this course may attract government subsidies, there may also be upfront fees, depending on any required underpinning knowledge and skills.
- > This course is eligible for VET Student Loans.
- >
- > **ALL STUDENTS, IRRESPECTIVE OF PREVIOUS STUDIES, WILL BE REQUIRE TO DO THE CORE SKILLS PROFILE FOR ADULTS (CSPA) BEFORE THEY ARE ELIGIBLE FOR GOVERNMENT SUBSIDY.**
- >

IT Studies Subjects

This qualification is from the National Training Package [ICT15](#) that is developed by the Commonwealth Government. TAFE SA IT Studies clusters related competencies in the Training Package into subjects. The information below refers to the TAFE SA IT Studies subjects and outlines the competencies that makes up those subjects. Delivery and assessment for the subjects will be done holistically so you will be awarded the same result for all competencies taught in that subject. Your final official results will refer to the competencies listed below.

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Assumed Skills and Knowledge

This is not an entry level qualification. There are assumed skills and knowledge that are required to commence at this Advanced Diploma level. These could have been gained in a number of ways:

- > Completed the Diploma of Information Technology Networking (ICT50415); or
- > Other study equivalent to it (refer to the table below); or
- > Have work experience and knowledge equivalent to it (refer to the table below).

If you do not have these assumed skills and knowledge you will need to use a study plan that contains subjects listed or do the qualification listed above. If you need to complete all of these assumed skills you would be adding another year of study.

These are PARTIALLY eligible for Subsidised Training *

Subject	Description
3CIHW	This subject describes the skills and knowledge required to acquire, install, configure and evaluate system hardware components according to client and user requirements.
3PRB	This subject introduces the programming constructs of sequence, selection and iteration, along with an introduction to modularisation, parameter passing, array handling and file processing. Small command-line programs and/or games are developed using Python scripting language
4CNS	This unit describes the skills and knowledge required to undertake scripted programming tasks for networking related activities. It applies to individuals with competent technical skills employed in network or systems administration roles.
4IVM	This subject describes the performance outcomes, skills and knowledge required to develop and implement virtualisation technologies with the goal of providing a more sustainable information and communications technology (ICT) environment. This subject will introduce students to the concept of virtualization and virtualization products such as VMWare Workstation and Hyper-V
4PICTS	This unit describes the skills and knowledge required to apply the principles of service management when working in an information and communications technology (ICT) service desk environment. It applies to individuals who work in ICT service roles and are responsible for providing ICT service desk support.
4BSWN	This subject teaches students the skills and knowledge required to build and arrange connectivity to a single zone wireless local area network (WLAN). It applies to individuals with competent information and communications technology (ICT) skills using one wireless access point or wireless router in a small-to-medium enterprise.
4CDE	This unit describes the skills and knowledge required to install, configure and support a desktop or workstation operating system such as Microsoft Windows 10 and 8.1 in a networked environment. It applies to individuals with competent technical skills employed in information and communications technology (ICT) support roles.
4CIRS6	This subject prepares students for jobs as network technicians and helps them develop additional skills required for computer technicians and help desk technicians. It provides a basic overview of routing and switching, IP addressing and security. It also familiarises students with the OSI layer model as well as the TCP/IP protocol stack. Students learn about the soft skills required for help desk and customer service positions and the final chapter helps them prepare for the CCENT certification exam. Network monitoring and basic troubleshooting skills are taught in context.
5ICW	This subject provides in-depth training on implementing, configuring, managing and troubleshooting Active Directory Domain Services (AD DS) in Windows Server 2016 environments. It covers core AD DS concepts and functionality as well as implementing Group Policies, performing backup and restore and monitoring and troubleshooting Active Directory related issues.

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4IMWS	This subject provides students with the knowledge and skills to configure and troubleshoot Windows Server 2016 Network Infrastructures. It will cover networking technologies most commonly used with Windows Server 2016 such Network Policy server and Network Access Protection and configuring secure network access with technologies such as VPN, secure web and firewalls. It also covers routing and remote access as well as other relevant technologies.
5CRS6	This course describes the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPv2, single-area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks. This course plus 4CIN will help students prepare for the CCENT certification.
5IUOS	This subject will require students learn to be effective users of Linux systems, acquiring skills and understanding of command line functions, file systems, users and groups, bash shell, process management, text editors, network applications, searching and organizing data, and graphical applications. Students learn to be effective administrators of Linux systems, mastering tasks such as hardware and device configuration, file system management, user administration, network configurations, kernel services, attaching new Linux systems to a corporate network, configuring the new systems for end-users, and troubleshooting.
4CMDB	This unit describes the skills and knowledge required to install a Microsoft SQL Server and MySQL Server database, manage data, data access and data security, and improve database performance. It applies to individuals responsible for the maintenance and coordination of database operations. They usually work in an organisation, providing daily services as database administrators, database developers, database coordinators, or application developers.
5LXN	This subject will require students learn to deploy and administer the core networking services using CentOS Linux which includes the Apache Web Server, the Samba File Server, BIND Domain Name Service, the Sendmail Mail Transport Agent, the Network File System (NFS).
5ECS	This subject will introduce skills and knowledge required to ensure that IT services meet current and future internal operating enterprise requirements. Students will learn to install and operate enterprise messaging and content management and collaboration tools, namely Microsoft Exchange, SharePoint and Office 365. A focus on strategic planning in a business environment is an important aspect that more than ever before, addresses how IT can help create a business market advantage.
5CSN6	This course describes the architecture, components, and operations of routers and switches in larger and more complex networks. Students learn how to configure routers and switches for advanced functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with OSPF, EIGRP, and STP in both IPv4 and IPv6 networks. Students will also develop the knowledge and skills needed to implement a WLAN in a small-to-medium network.
5CCN6	This course discusses the WAN technologies and network services required by converged applications in a complex network. The course enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Students learn how to configure and troubleshoot network devices and resolve common issues with data link protocols. Students will also develop the knowledge and skills needed to implement virtual private network (VPN) operations in a complex network.
5CNW	This subject will introduce students to the skills and knowledge required to install and manage enterprise-wide information and communications technology networks, including Voice over IP (VoIP).
5ISV	This subject will prove your ability to deploy and manage a Microsoft Server Virtualization infrastructure in an enterprise environment. You will also find out how to configure, manage, and maintain Windows Server 2016 Hyper-V and System Center 2016 Virtual Machine Manager, including networking and storage services. And you will learn how to configure key Microsoft Server virtualization features, such as Generation 2 Virtual Machines, Replication Extension, Online Export, Cross-Version Live Migration, Online VHDX Resizing, and Live Migration Performance tuning, in addition to Dynamic Virtual Switch Load Balancing and virtual Receive Side Scaling (vRSS).

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Required Competencies and Prerequisites

Advanced Diploma of Network Security

National Code: ICT60215 TAFE SA Code: TP00753

This table shows you the competencies that you must have on your academic record in order to achieve this qualification.

Subject	National Code	Unit Name	Pre-Requisite
Cisco Technologies			
6CNS	Cisco Network Security		5CRS6
	ICTNWK601	Design and implement a security system	
	ICTNWK608	Configure network devices for a secure network infrastructure	
Wireless Technologies			
6EWN	Enterprise Wireless Networks		4IMWS, 5CRS5
	ICTNWK605	Design and configure secure integrated wireless systems	
	ICTNWK502	Implement security encryption technologies	
	ICTNWK607	Design and implement wireless network security	
	ICTICT609	Lead the evaluation and implementation of current industry-specific technologies	
Network Security			
6DIS	Design and Implement Network Security		5CRS6, 5LXN
	ICTNWK602	Plan, configure and test advanced server based security	
	ICTNWK509	Design and implement a security perimeter for ICT networks	
Network Sustainability			
6SUS	Network Sustainability		5ECS, 5ISV
	ICTSUS601	Integrate sustainability in ICT planning and design projects	
	ICTNWK616	Manage security privacy and compliance of cloud service deployment	
5ISV	Implement Server Virtualization		4IVM, 5ICW, 4IMWS
	ICTSUS501	Implement server virtualisation for a sustainable ICT system	
	ICTNWK525	Configure an enterprise virtual computing environment	

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Optional Electives

To be eligible for the Advanced Diploma students will also need to have completed an additional two competencies at the Diploma level. If a student uses the suggested study plan they can obtain these by:

- > 5ISV (recommended)
- > 5CNW and 5LNK
- > 5CRS6, 5CSN6 or 5CCN6
- > 5ECS

Please speak to your local campus for more information.

Subject Descriptions

Subject	Description
6CNS	This subject covers the Cisco Networking Academy CCNA Security subject which provides a next step for individuals who want to enhance their CCNA-level skill set and help meet the growing demand for network security professionals. The curriculum provides an introduction to the core security concepts and skills needed for the installation, troubleshooting, and monitoring of network devices to maintain the integrity, confidentiality, and availability of data and devices.
6DIS	Students study the Fortinet NSE4 curriculum. Students explore firewall policies, basic VPNs, antivirus, web filtering, application control, user authentication, and more. These administrative fundamentals provide a solid understanding of how to integrate basic network security. As well they explore firewall policies, basic VPNs, antivirus, web filtering, application control, user authentication, and more. These administrative fundamentals provide a solid understanding of how to integrate basic network security.
6EWN	<p>This subject covers the Aruba Mobility Academy program, which is a lab-intensive course designed to provide students a foundation in WLAN technologies, the basics of Radio Frequency (RF) technologies, 802.11 wireless standards (802.11ac, 802.11n), WLAN architectures: Mobility Controllers, 802.1X and RADIUS authentication, Spectrum analysis, WLAN design and planning.</p> <p>This subject provides the technical understanding and hands-on experience of configuring a single-controller and single Access Point (AP) Aruba WLAN and the ability to build a complete, secure single-controller network with multiple SSIDs.</p> <p>Successful conclusion of the course prepares the students for the Aruba Certified Mobility Associate (ACMA) exam.</p>
6SUS	This subject will introduce students to sustainability issues of network implementations in the cloud. It will also examine how to manage security privacy and compliance of cloud service deployment using Amazon AWS cloud services
5ISV	This subject will prove your ability to deploy and manage a Microsoft Server Virtualization infrastructure in an enterprise environment. You will also find out how to configure, manage, and maintain Windows Server 2016 Hyper-V and System Center 2016 Virtual Machine Manager, including networking and storage services. And you will learn how to configure key Microsoft Server virtualization features, such as Generation 2 Virtual Machines, Replication Extension, Online Export, Cross-Version Live Migration, Online VHDX Resizing, and Live Migration Performance tuning, in addition to Dynamic Virtual Switch Load Balancing and virtual Receive Side Scaling (vRSS).

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Study Plan

TAFE SA Study Plan for Full-Time Students who do not have the assumed skills and Knowledge (24 Month Advanced Diploma) N6AS

The following table shows the recommended study plan for the Advanced Diploma of Network Security. Each stage is one Semester (or 6 months) in length for Full-Time students*.

These are **PARTIALLY** eligible for Subsidised Training

Stage 1		Stage 2		Stage 3		Stage 4	
Semester 1		Semester 2		Semester 1		Semester 2	
Term 1	Term 2	Term 1	Term 2	Term 1	Term 2	Term 1	Term 2
<i>Assumed Skills Required</i>							
4CIRS6 (4)		5IUOS (2) 4CMDB (2)					
3CIHW (4) 4CDE (4) 4PICTS (2) 4IVM (2)	5ICW (4) 4BSWN (2)	3PRB (2) 4IMWS (4) 5CRS6 (4)	4CNS (4) 5CSN6 (4)	5LXN (4) 5CCN6 (4) 5ECS (4)	5CNW (4)		
<i>Subjects Required to achieve the Advanced Diploma Network Security</i>							
Practical (2)	Practical (6)	Practical (4)	Practical (4)	Practical (4)	5ISV† (4) Practical (4)	6EWN (4) 6DIS (4) 6CNS (2) 6SUS (2) Practical (6)	
(18)	(16)	(16)	(16)	(16)	(12)	(18)	(18)
Skill Sets							
Gain the							
<ul style="list-style-type: none"> Certified Network Associate Technology Specialist Skill Set - ICTSS00036 							

Please Note: This program structure is subject to change.

Legend:

- * The length of time for Part-Time students will depend on the number of subjects studied in each semester.
- † To be eligible for the Advanced Diploma students will also need to have completed an additional two competencies at the Diploma level

Practical additional sessions to complete subject activities, assignments and tests.

- () The number in brackets after the subject is the indicative number of contact hours per week that you expect to study at a TAFE campus for that subject.

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NOTE: The study plan is for a full-time student. If done with class-attendance this is usually between 12-18 hours a week of attendance. However, your local campus may offer the subject in a variety of formats including online, self-paced etc. Refer to the campus Course Registration Numbers (CRN) document for details specific to your campus.

Study Plan	Subsidised Training Pricing	Subsidised Training Concession Pricing	Full Fee Paying
Advanced Diploma of Network Security – plan NW6AS (You do not have the assumed skills and knowledge)			
Total fee	\$9,862	\$7,546	\$13,292
Upfront student fee (mainly in the first 15 months)	\$5,807	\$4,444	\$7,828
Student fee deferred to VET FEE HELP (in the last 9 months)	\$4,054	\$3,102	\$5,464
Our recommendation is to do the Diploma of Information Technology Networking First			

The above prices may vary for a range of students including international students, trainees, VET in schools' students etc. Please contact your local campus for more information if necessary.

The above prices are subject to change.

[TAFE SA Refund Policy Details](#)

[Click here to apply for this qualification](#)