



@ASK Training
Attitude | Skills | Knowledge

*Eligible for Part-Time
Training Allowance*

**Eligible For \$4,000
SkillsFuture Level-Up
Programme**



(SCTP) Advanced Certificate in Infocomm Technology (Infrastructure and Operations)

Course Code: TGS-2024044566



Programme Description

The Advanced Certificate in IT Infrastructure and Operations (IIO) programme is a comprehensive IT training programme designed to equip participants with advanced skills and knowledge in managing and optimising IT infrastructure. Through seven structured modules, participants will delve into areas such as hardware and software troubleshooting, network administration, server management, cloud computing, cybersecurity, and emerging technologies. The programme incorporates hands-on learning experiences, practical applications, and a capstone project to ensure participants gain practical expertise and are prepared to tackle real-world IT challenges. With a focus on collaborative problem-solving and the latest industry trends, the Advanced Certificate in IIO programme prepares participants for roles in IT operations, infrastructure management, and cybersecurity.



**@ASK Training Pte Ltd | UEN No.201016621D | PEI Registration No.
201016621D | Period of Registration: 20th July 2025 - 19th July 2029**

Who Should Attend?

This programme is tailored for anyone seeking to deepen their expertise in IT infrastructure and operations. It caters to network and system administrators, cloud computing enthusiasts, cybersecurity professionals, and individuals with a Certificate in IT Infrastructure and Operations looking to advance their careers. Whether aiming to enhance current roles or transition into IT infrastructure and operations, this program offers a comprehensive pathway to success in the dynamic field of information technology.

| | |
|--------------------------|--|
| Course Duration | 6 Months , 9.00 AM - 6.00 PM |
| Course Fee: | From \$770.00 (inclusive of 9% GST) after 95% SkillsFuture Funding |
| Mode of Delivery: | Face-to-Face Classroom |

Programme Objective

Upon completion of this course, trainees should be equipped with the skills and knowledge to:

- Apply advanced troubleshooting techniques, including complex diagnostic methods, hardware diagnostics, and software debugging, to resolve hardware and software issues efficiently through collaborative problem-solving.
- Design, configure, secure, and troubleshoot complex network infrastructures, including applying advanced techniques to optimise network performance and mitigate security vulnerabilities.
- Manage server environments, including hardware selection, configuration of Active Directory, DNS, DHCP, storage solutions, server virtualisation, high availability, disaster recovery strategies, and backup services on Windows servers.

- Design and manage cloud computing infrastructure, configure virtual networks, manage cloud storage and virtual machines, and troubleshoot common cloud networking problems, grounded in an understanding of cloud concepts, service models, and deployment models.
- Utilise advanced cybersecurity and ethical hacking techniques, including penetration testing, incident response management, and digital forensic methodologies, to enhance organisational security.
- Analyse the impact of emerging technologies on the digital workplace, including AI, Blockchain, IoT, and cloud computing, to propose transformative enterprise solutions based on market trends and technological advancements.
- Design, develop, and deliver a significant IT project in IT Asset Inventory or Cloud Computing, solidifying practical experience and preparing for real-world challenges.

Minimum Requirement

To apply for the Advanced Certificate in Infocomm Technology (Infrastructure and Operations) Programme, you should possess one of the following qualifications or meet one of these criteria:

- Certificate in IT Infrastructure and Operations; OR
- Mature candidates (\geq 30 years old with 8 years' work experience in an ICT-related field); or
- Candidates with other qualifications will be considered on a case-by-case basis

Basic computer literacy and fundamental understanding of IT Infrastructure and Operations concepts are required.



Application Documents Required:

- Latest resume
- Highest qualification certificate and/or academic transcript

These documents will be reviewed as part of the screening process.

Programme Outline

Module 1: Advanced Hardware and Software Troubleshooting

- Learning Unit 1: Introduction to Advanced Troubleshooting
- Learning Unit 2: Advanced Hardware Troubleshooting Techniques
- Learning Unit 3: Advanced Software Troubleshooting Techniques
- Learning Unit 4: Diagnosis and Resolution of Complex Technical Problems

Module 2: Advanced Network Administration

- Learning Unit 1: Advanced Network Configuration and Administration
- Learning Unit 2: Routing and Switching
- Learning Unit 3: Network Security and Advanced Troubleshooting
- Learning Unit 4: Advanced Network Methodology

Module 3: Systems and Server Administration

- Learning Unit 1: Introduction of Microsoft Server Environment
- Learning Unit 2: Server Installation – Requirement and Techniques
- Learning Unit 3: Deployment of Active Directory Domain Service (ADDS)
- Learning Unit 4: Deployment of DNS and DHCP
- Learning Unit 5: Deployment of disks, file system and storage space
- Learning Unit 6: Deployment of Remote Access Services
- Learning Unit 7: Hyper-V in Windows Server
- Learning Unit 8: High availability (HA) and Disaster recovery (DR)

Module 4: Cloud Computing

- Learning Unit 1: Introduction to Cloud Computing
- Learning Unit 2: Cloud Virtual Network
- Learning Unit 3: Cloud Storage
- Learning Unit 4: Cloud Virtual Machines
- Learning Unit 5: Cloud Monitoring

Module 5: Cybersecurity and Ethical Hacking

- Learning Unit 1: Advanced Cybersecurity Principles and Practices
- Learning Unit 2: Penetration testing and ethical hacking methodologies
- Learning Unit 3: Incident response and forensic analysis

Module 6: Emerging Technologies and Trends

- Learning Unit 1: What are Emerging Technologies?
- Learning Unit 2: How to approach Emerging Technologies?
- Learning Unit 3: Exploration of Emerging Technologies in the IT industry
- Learning Unit 4: Exploration of Digital Workplace Technologies
- Learning Unit 5: Scenario-based Case Study

Module 7: Capstone Project – Real-world IT Project

Real-world IT Project module comprises five learning units that aim to equip the trainees with the essential skills and knowledge to design, develop, and deliver a significant project in one of two key areas: IT Asset Inventory" or Cloud Computing Solution.

POST-COURSE SUPPORT



WHY WE ARE DIFFERENT

@ASK TRAINING

- ✔ Instructors are subject matter experts
- ✔ Instructors are certified facilitators with the WSQ Advanced Certificate in Learning and Performance (ACLP)
- ✔ Courseware is up-to-date
- ✔ Training is hands-on with real world project-based assignments
- ✔ Career Advisory and Resources Support Programme

OTHER INSTITUTES

- ✘ Instructors may not have sufficient subject matter expertise
- ✘ Instructors' teaching experience may be inadequate
- ✘ Courseware may be outdated
- ✘ Curriculum and lesson plan may be unstructured and lack engagement
- ✘ Training may be loaded with lectures without opportunity to practice concepts taught
- ✘ Certificate may not be recognised
- ✘ No career services offered

@ASK Training is a Private Education Institution (PEI) accredited by the Ministry of Education (MOE) and also a Continuing Education and Training Centre (CETC) accredited by SkillsFuture Singapore (SSG), offering a diverse range of courses from Infocomm Technology (ICT) to Digital Marketing, with up to **95% funding and Career Advisory and Resources Support Programme.**

Programme Fee / Funding Information

\$S\$10,000
(exclusive of 9% GST)

PROGRAMME FEE AFTER ELIGIBLE SSG SUBSIDIES:

From **\$S\$770.00**

(inclusive of 9% GST) after 95% SSG Subsidies

|  Self-Sponsored | Course Fee <small>before Subsidy and GST</small> | Eligible Funding | Nett Fees Payable <small>incl. 9% GST</small> |
|--|---|---------------------------------|--|
| Singapore Citizens ≥ 40 years old | \$S\$10,000 | 90% SkillsFuture Funding | \$S\$1,270.00 |
| Singapore Citizens, PRs or LTVP+ Holders ≥ 21 years old | | 70% SkillsFuture Funding | \$S\$3,270.00 |

SkillsFuture Credits can be used on top of existing subsidies

|  Company-Sponsored | Course Fee <small>before Subsidy and GST</small> | Eligible Funding | Nett Fees Payable <small>incl. 9% GST</small> |
|--|---|---------------------------------|--|
| Small-to-Medium Enterprise (SME) Singaporean Citizens, PRs or LTVP+ Holders ≥ 21 years old | \$S\$10,000 | 90% SkillsFuture Funding | \$S\$1,270.00 |
| Non-SME Singaporean Citizens, PRs or LTVP+ Holders ≥ 21 years old | | 70% SkillsFuture Funding | \$S\$3,270.00 |
| Non-SME Singaporean Citizens ≥ 40 years old | | 90% SkillsFuture Funding | \$S\$1,270.00 |

Singapore Citizens 21 years old and above who meet special criteria* may be eligible for Additional Course Fee Funding Support (AFS) of 95% Subsidy. AFS is only eligible for SkillsFuture Career Transition Programme applicants.

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Visit our website: <https://asktraining.com.sg/it-courses/advanced-certificate-in-infocomm-technology-infrastructure-and-operations/>



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