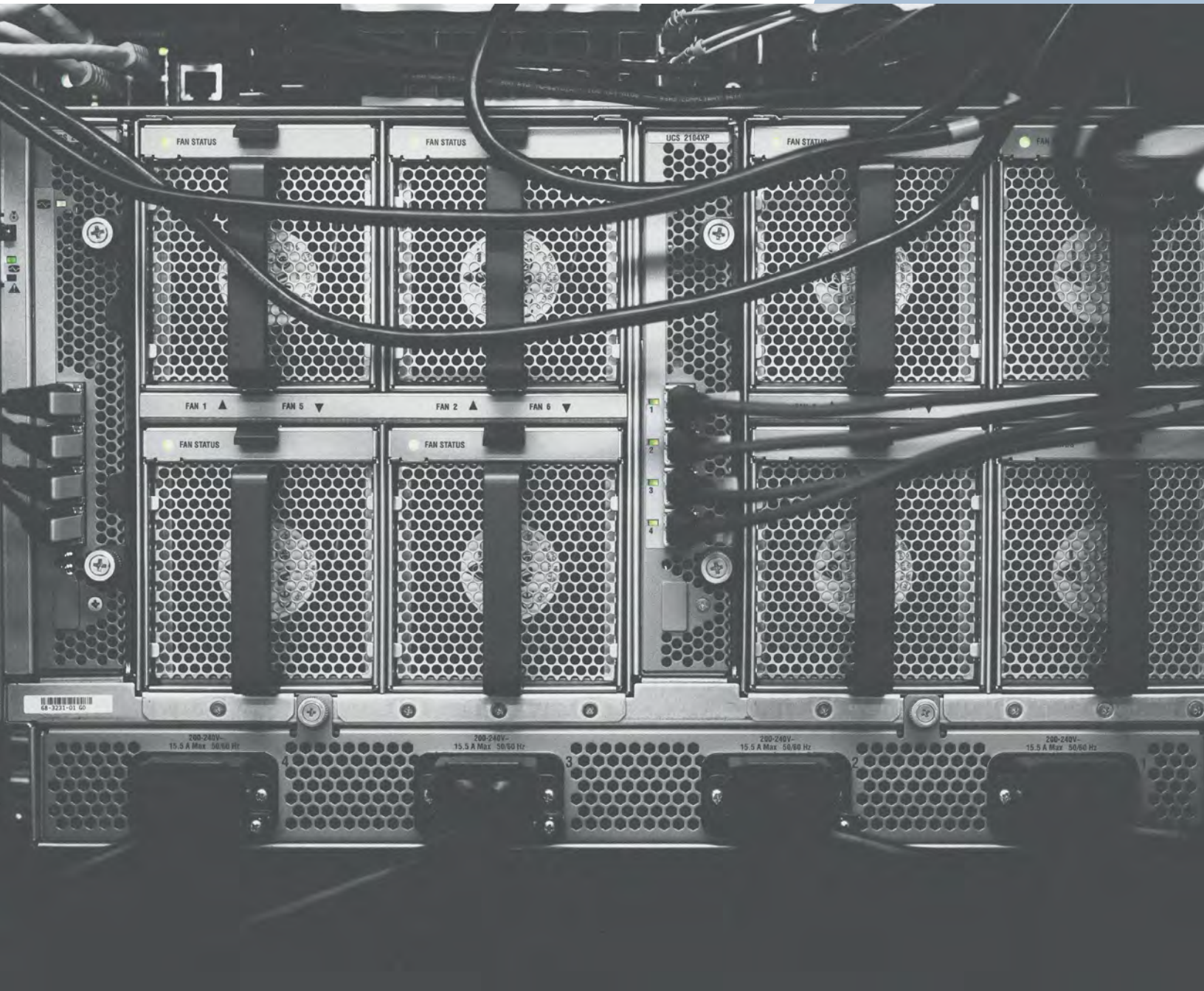


# NETWORK AND SYSTEM SOLUTIONS SPECIALIST DIPLOMA



*Empower your career*



**CORNERSTONE**  
International Community College of Canada

# YOUR SUCCESS OUR PRIORITY

## Network and system Solutions Specialist Diploma

### *Curriculum Overview*

Network and System Solutions Specialist diploma program is designed for students who want to pursue a career in Information Technology to meet industry demand for Computer Technicians, System and Network Administrators. The program focuses on learning the skills needed for IT Infrastructure Services.

Students, through progressively intensive courses, will gain insights on principles of computing technologies, hardware and software theories, network communications, planning, implementation, security, administration, maintenance and troubleshooting of various computers and networking systems.

Classes on virtualization and simulation will provide hands-on practices on subjects that are high relevancy to current field. Students will be able to apply learnings on computer and network operating system software, infrastructure components, data center management and cloud computing.”

“

*“Our industry does not respect tradition - it only respects innovation” | Satya Nadella*

### *Practicum Overview*

The Practicum (4 weeks) is essential to developing well rounded students. By working directly in an IT organization in a business environment students will have the opportunity to learn practical skills that complement their academic learning.



The average salary for a Computer Engineer in BC is C\$57,145 per year.”



**Program duration** 14 months total

**13**  
months

Academic training

+

**4**  
weeks

Practicum

### Career opportunities:

- |                         |                      |
|-------------------------|----------------------|
| Service Desk Technician | Desktop Technician   |
| Support Technician      | System Administrator |
| Network Administrator   | Computer Engineer    |
| Network Engineer        | Datacenter Engineer  |
| Cloud Analyst           | Windows Architect    |
| Solution Architect      | Computer Analyst     |
| Security Analyst        |                      |

### Admission requirements

1. High school graduation or equivalent; or 18 years of age.
2. A short written essay from the student explaining why they are interested in the program and how the program can assist them to meet their future goal
3. The minimum level of English language proficiency is one of the following
  - English 12 - minimum final grade “C”
  - TOEFL PBT – 513; CBT – 183; iBT – 65;
  - TOEIC – 620;
  - IELTS – 5.5;
  - Cornerstone Placement Test – Level 5\*

\*(This test uses the Placement and Evaluation Package (Interchange 3 Third Edition and Passages Second Edition from Cambridge University Press, 2008) or equivalent.



**You may study ESL courses prior to starting the program**

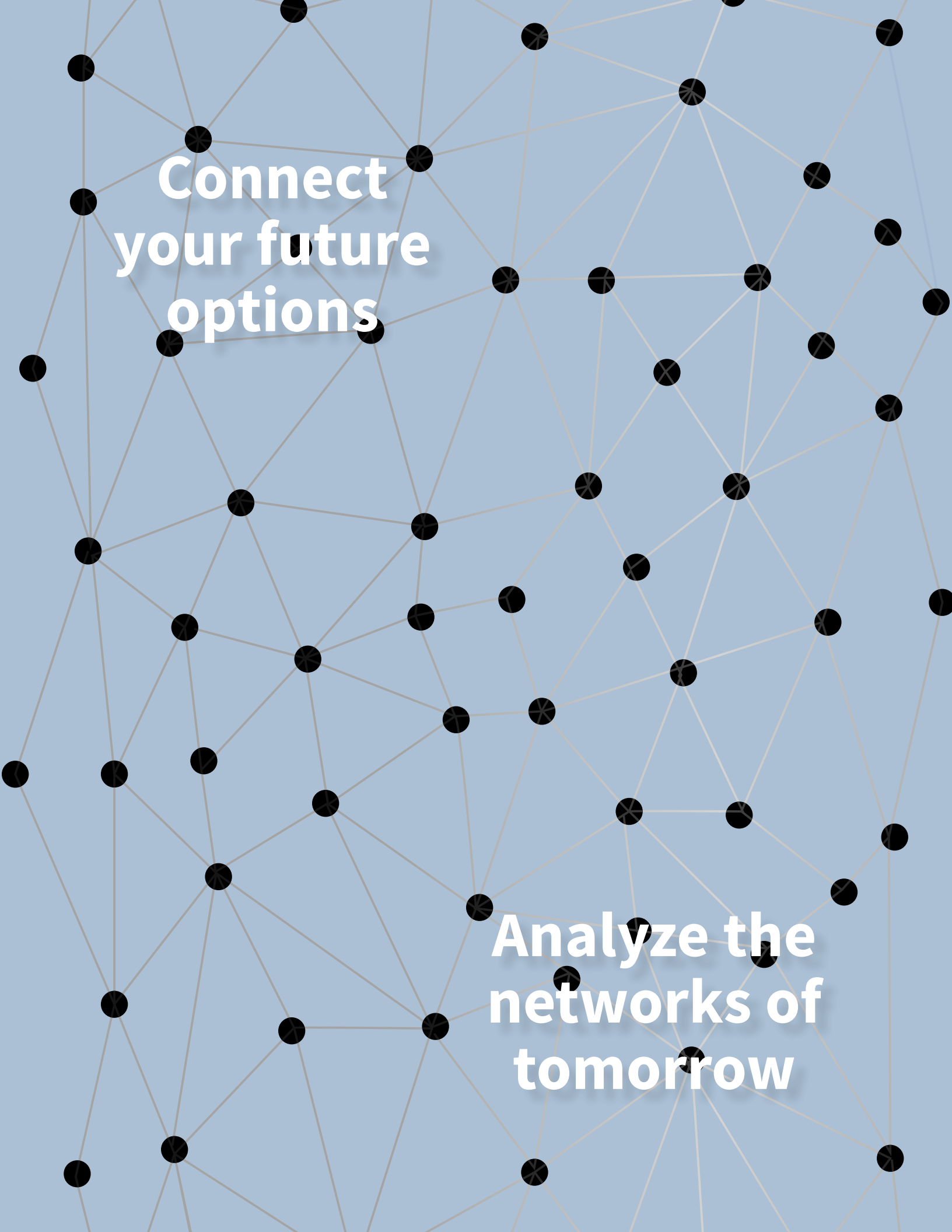




## *Learning Objectives*

This program maps directly to the certification pathways for recognized industry designations and the successful student will have reliably demonstrated the ability to:

- Identify the hardware components of personal computers and mobile digital devices and the basic components and functions of operating systems
- Install, configure and deploy Virtualization and Consolidation environments and manage and maintain Private and Public Cloud Infrastructure Services
- Identify basic network theory concepts and major network communications methods and implement compliance and operational security measures
- Understand GNU and Unix Commands and Manage Devices, Linux File systems, File-system Hierarchy Standard
- Maintain Active Directory Domain Services and Manage User, Computer and Service Accounts with Organization Units and AD Site architecture
- Implement and configure Identify Management services with ADDS, ADFS, ADCS, AD RMS and provide high availability and load balancing and other critical infrastructure services.
- Plan and implement a virtualization administration solution by using System Center 2012 - Virtual Machine Manager
- Plan and implement a server monitoring strategy using the Windows Server 2012 tools and using Microsoft System Center 2012 -Operations Manager
- Design an Enterprise Campus in a hierarchical modular fashion using IP management, Borderless Networks and with Routers and switches, and design a modern data center using Cisco Systems and industry best practices
- Understand the Key concepts of ITIL and important principles for improving IT operations

A network diagram consisting of numerous black circular nodes connected by thin brown lines, set against a light blue background. The nodes are scattered across the frame, and the lines form a complex web of connections.

**Connect  
your future  
options**

**Analyze the  
networks of  
tomorrow**

## Program Curriculum

### TIA 100 Comptia A · 80hr

A+ establishes best practices in troubleshooting, networking and security across a variety of devices to set the stage for IT careers. It covers PC hardware and peripherals, mobile device hardware, networking and troubleshooting hardware and network connectivity issues.

### TIA 200 Comptia cloud · 30hr

Cloud+ course validates the skills and expertise of IT practitioners in implementing and maintaining cloud technologies. Cloud+ accredits IT professionals with the constantly changing and advancing knowledge they need to be successful in today's cloud environment.

### TIA 300 Comptia Security · 80hr

Security+ is the course globally trusted to validate foundational, vendor-neutral IT security knowledge and skills. As a benchmark for best practices in IT security, this certification covers the essential principles for network security and risk management – making it an important stepping stone of an IT security career.

### TIA 400 Comptia Linux · 80hr

This course introduces Linux, Powered by LPI certifies foundational skills and knowledge of Linux. With Linux being the central operating system for much of the world's IT infrastructure, Linux+ is an essential credential for individuals working in IT, especially those on the path of a Web and software development career.

### TIA 500 Comptia Network · 80hr

Network+ is a vendor neutral networking certification that is trusted around the world. It validates the essential knowledge and skills needed to confidently design, configure, manage and troubleshoot any wired and wireless networks. CompTIA Network+ certified individuals are indemand worldwide. Data networks are more crucial for businesses than ever before.

### MSC 400 Configuring Windows · 80hr

This course is designed to provide students with the knowledge and skills required to install and configure Windows 10 desktops and devices in a Windows Server domain corporate environment. These skills include learning how to install and customize Windows 10 operating systems, applications, security, maintenance and updates

### MSC 410 Installing And Configuring Windows Server 2012 R2 · 80hr

This course covers implementing, managing, maintaining and provisioning services and infrastructure in a Windows Server 2012 environment. This course focuses on the initial implementation and configuration of core services, such as Networking, Storage, Active Directory Domain Services (AD DS), Group Policy, File and Print Services, and Hyper-V.

### MSC 411 Administering Windows Server 2012 R2 · 80hr

This course focuses on the administration tasks necessary to maintain a Windows Server 2012 infrastructure such as configuring and troubleshooting name resolution, user and group management with Active Directory Domain Services (AD DS), Group Policy and other critical roles and features.

### MSC 412 Configuring advanced windows server 2012 r2 services · 80hr

This course covers implementing, managing, maintaining and provisioning advance services and infrastructure in a Windows Server 2012 environment. This course primarily covers advanced configuration of services necessary to deploy, manage and maintain a Windows Server 2012 infrastructure.

### MSC 413 Designing and implementing a server infrastructure · 80hr

In this course, students will learn how to plan and implement solutions in Windows Server 2012 which includes managing and maintaining a server infrastructure, planning and implementing a highly available enterprise infrastructure for virtualization and identity management.





MSC  
414

### Implementing an Advanced Server Infrastructure · 80hr

This course covers the knowledge and skills to plan and implement a highly available, secure infrastructure with focus on Active Directory Federation Service (AD FS), public key infrastructure (PKI), and Active Directory Rights Management Services (AD RMS) and integration with System Center products.

CIS  
100

### Ccna Routing And Switching · 80hr

This course is for entry-level network engineers that helps maximize your investment in foundation networking knowledge and increase the value of your employer's network. This also validates the ability to install, configure, operate, and troubleshoot medium-size routed and switched networks.

ITI  
100

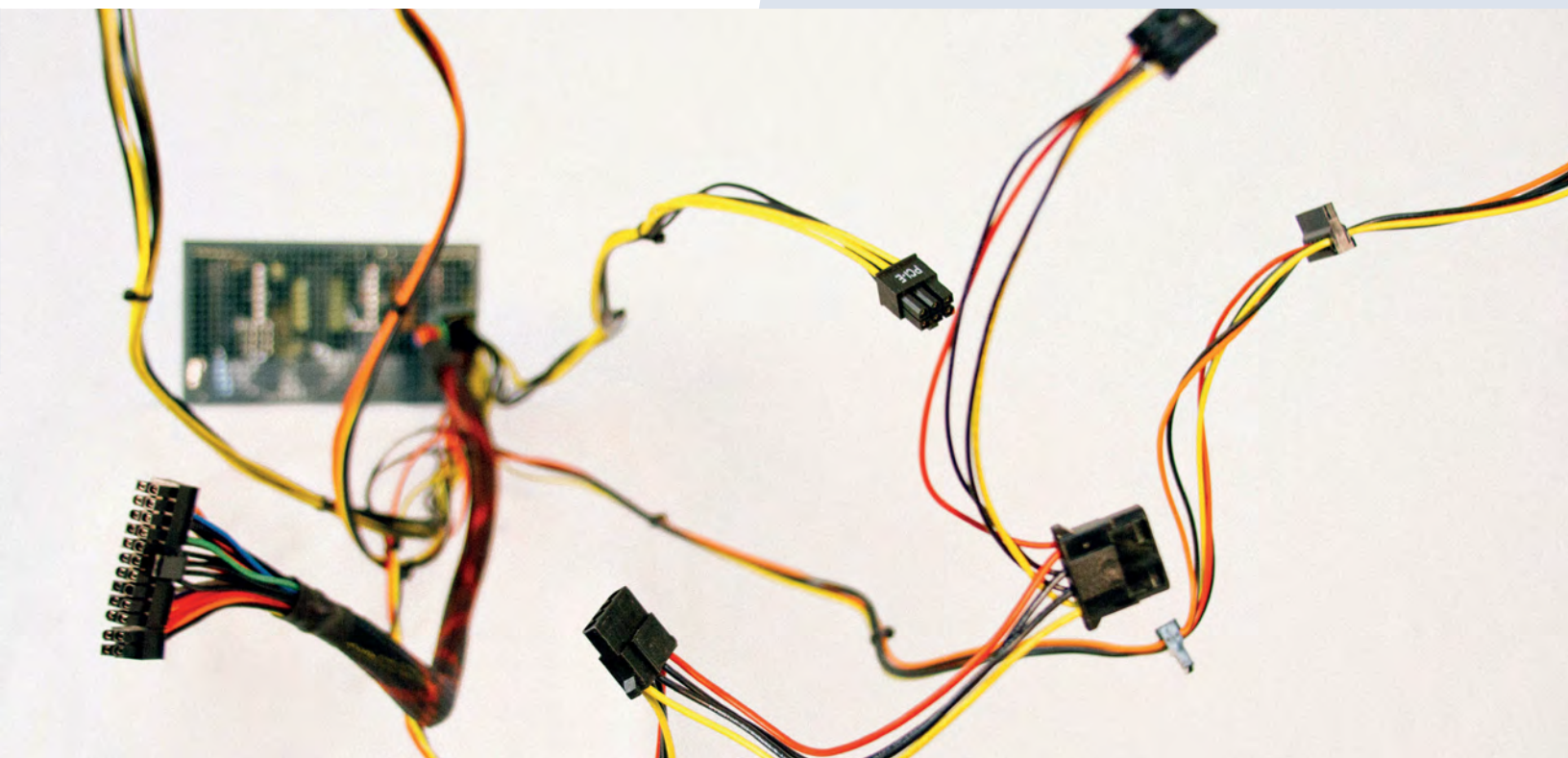
### ITIL 2011 Foundation · 80hr

ITIL® is a set of best practices guidance that has become a worldwide- adopted framework for Information Technology Services Management (ITSM) by many Public & Private Organizations. Since early 1990, ITIL® has been evolving from focusing on Functions and Processes under versions 1 and 2 to focusing on the Full Service Life-cycle Management under current version.

★

### Practicum · 160hr

The Practicum (4 weeks) is essential to developing well rounded students. By working directly in an IT organization in a business environment students will have the opportunity to learn practical skills that complement their academic learning.





# Work in an IT Infrastructure Profession

- Managed Services
- System Services
- Data center services
- Security Services
- Cloud Services
- Network ServicesW



## COMPTIA (20 Weeks)

COMPTIA A+ Essentials  
COMPTIA Network +  
COMPTIA Linux +  
COMPTIA Security +  
COMPTIA Cloud +



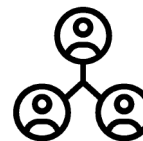
## MICROSOFT (24 Weeks)

MCSA (Microsoft Certified Solutions Associate)  
MCSE (Microsoft Certified Solutions Expert  
Server Infrastructure)  
Configuring Windows 10



## CISCO & ITIL (8 Weeks)

CCNA (Cisco Certified Network Associate)  
ITIL Foundation Certification



## Practicum

Work experience and hands on training are an extremely important part of our programs



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