

# Information & Computer Science (Network Support Specialist): Certificate of Competence

## Description

This certificate provides students with the essentials of computer security, the fundamentals of network design, and the advanced components of network design. This includes using encryption, activity monitoring, intrusion detection, security policies, security administration, basic switching and routing, wired and wireless networking, wide area networking, Internet Protocol Version 4 (IPv4) and Internet Protocol Version 6 (IPv6) routing, and route optimization.

## Program Learning Outcomes

Upon completion of the certificate, students will be able to:

- Identify the potential risks and mitigations of various threats to a computing environment.
- Identify and create security policies and procedures.
- Design a local area network using appropriate network devices including switches and routers.
- Administer a local area network consisting of a server, workstations, switches, and routers.
- Design a multi-area network with route optimization.
- Design an IPv4/IPv6 hybrid network.

Program: [Information & Computer Science](#)

Type: Certificate of Competence (CO)

## Semester 1

Item #	Title	Credits
ICS 211	Introduction to Computer Science II	3
ICS 184	Introduction to Networking	3
	<b>Sub-Total Credits</b>	<b>6</b>

## Semester 2

Item #	Title	Credits
ICS 273	Network Design and Administration	3
ICS 274	Advanced Network Routing and Optimization	3
ICS 215	Introduction to Scripting	3
	<b>Sub-Total Credits</b>	<b>9</b>
	Total credits for degree:	15