

# Palomar College Catalog 2009-2010

## Computer Science and Information Systems - Networking (CSNT)

See also CSIS - Computer Science, CSIS - Database, CSIS - Information Technology, and CSIS - Web Technology

Contact the Computer Science and Information Systems Department for further information.

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<http://www.palomar.edu/csis>

### Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).

- Computer Network Administration with Emphasis in Cisco and Linux Management
- Computer Network Administration with Emphasis in Cisco and Microsoft Management
- Computer Network Administration with Emphasis in Microsoft and Linux Management

### Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).

- Computer Network Administration with Emphasis in Cisco and Linux Management
- Computer Network Administration with Emphasis in Cisco and Microsoft Management
- Computer Network Administration with Emphasis in Microsoft and Linux Management

### Certificates of Proficiency -

Certificate of Proficiency requirements are listed in Section 6 (green pages).

- Cisco
- Desktop Support Specialist - MCSA
- Network Engineer - MCSE

## PROGRAMS OF STUDY

### Cisco

The Cisco networking program is designed to teach students the skills needed to design, build, and maintain small to medium-sized networks. This provides students the opportunity to enter the workforce and/or further their education and training in the computer-networking field.

#### CERTIFICATE OF PROFICIENCY

Program Requirements	Units
CSNT 160 Cisco Networking Fundamentals	3
CSNT 161 Cisco Router Configuration	3
CSNT 260 Cisco Advanced Routing/Switching	3
CSNT 261 Cisco WAN Design/Support	3
<b>TOTAL UNITS</b>	<b>12</b>

### Computer Network Administration with Emphasis in Cisco and Linux Management

This program prepares the student for employment in the field of Computer Networking. The focus is on developing skills in a combination of the network technologies produced by Cisco and Linux/Unix. Specific learning outcomes include developing team dynamics in the following skills: Network Media Installation, LAN and WAN Design, Network Management, Fundamentals of Networking Devices, Client Hardware Repair, Network Operating Systems Installation and Configuration, Networking Device Operating Systems, Installation and Configuration, Client Operating Systems Installation and Configuration, Network Security, Remote Access, Routing Principles and Configuration, and Maintaining a Corporate Network.

### A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements	Units
CSNT 110 Hardware and O.S. Fundamentals	3
CSNT 111 Networking Fundamentals	3
CSNT 120 Windows Client	3
CSNT 121 Windows Server	3
CSNT 140 Linux Administration	2
CSNT 141 Linux Networking and Security	2
CSNT 160 Cisco Networking Fundamentals	3
CSNT 161* Cisco Router Configuration	3
CSNT 180 Wireless Networking	3
CSNT 181 Hacker Prevention/Security	3
CSNT 260 Cisco Advanced Routing and Switching	3
CSNT 261 Cisco Wide Area Network Design and Support	3
CSCI 108 Survey of Computer Science	4
CSCI 130 Linux Fundamentals	2
<b>TOTAL UNITS</b>	<b>40</b>

\* Note: CSNT 160 is a prerequisite for CSNT 161

### Computer Network Administration with Emphasis in Cisco and Microsoft Management

This program prepares the student for employment in the field of Computer Networking. The focus is on developing skills in a combination of the network technologies produced by Cisco and Microsoft. Specific learning outcomes include developing team dynamics in the following skills: Network Media Installation, LAN and WAN Design, Network Management, Fundamentals of Networking Devices, Client Hardware Repair, Network Operating Systems Installation and Configuration, Networking Device Operating Systems, Installation and Configuration, Client Operating Systems Installation and Configuration, Network Security, Remote Access, Routing Principles and Configuration, and Maintaining a Corporate Network.

### A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements	Units
CSNT 110 Hardware and O.S. Fundamentals	3
CSNT 111 Networking Fundamentals	3
CSNT 120 Windows Client	3
CSNT 121 Windows Server	3
CSNT 160 Cisco Networking Fundamentals	3
CSNT 161* Cisco Router Configuration	3
CSNT 180 Wireless Networking	3
CSNT 181 Hacker Prevention/Security	3
CSNT 221 Windows Infrastructure Administration	3
CSNT 230 Design Windows Active Directory & Infrastructure	2
CSNT 260 Cisco Advanced Routing and Switching	3
CSNT 261 Cisco Wide Area Network Design and Support	3
CSCI 108 Survey of Computer Science	4
CSCI 130 Linux Fundamentals	2
<b>TOTAL</b>	<b>41</b>

\* Note: CSNT 160 is a prerequisite for CSNT 161

### Computer Network Administration with Emphasis in Microsoft and Linux Management

This program prepares the student for employment in the field of Computer Networking. The focus is on developing skills in a combination of the network technologies produced by Microsoft and Linux/UNIX. Specific learning outcomes include developing team dynamics in the following skills: Network Media Installation, LAN

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and WAN Design, Network Management, Fundamentals of Networking Devices, Client Hardware Repair, Network Operating Systems Installation and Configuration, Networking Device Operating Systems, Installation and Configuration, Client Operating Systems Installation and Configuration, Network Security, Remote Access, Routing Principles and Configuration, and Maintaining a Corporate Network.

## A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements	Units
CSNT 110 Hardware and O.S. Fundamentals	3
CSNT 111 or Networking Fundamentals	3
CSNT 160 Cisco Networking Fundamentals	3
CSNT 120 Windows Client	3
CSNT 121 Windows Server	3
CSNT 140 Linux Administration	2
CSNT 141 Linux Networking and Security	2
CSNT 180 Wireless Networking	3
CSNT 181 Hacker Prevention/Security	3
CSNT 221 Windows Infrastructure Administration	3
CSNT 224 Active directory Services Administration	3
CSCI 108 Survey of Computer Science	4
CSCI 130 Linux Fundamentals	2
<b>Group One Electives (Select 2 courses)</b>	
CSNT 222 Managing a Windows Infrastructure	2
CSNT 230 Design Windows Active Directory & Infrastructure	2
CSNT 231 Design Windows Network Security	2
<b>Group Two Electives (Select 1 course)</b>	
CSNT 235 Microsoft Exchange Server	2
CSDB 120 SQL Database Design	2
CSDB 210 SQL Server Administration	2
<b>TOTAL UNITS</b>	<b>40</b>

Note: By adding CSNT 161, CSNT 260 and CSNT 261 to your Microsoft and Linux Management Emphasis you can also earn a Certificate of Proficiency in Cisco in addition to your Computer Network Administration A.A. Degree.

## Desktop Support Specialist - MCSA

Desktop support specialists are qualified to successfully troubleshoot, repair and upgrade the desktop computer including hardware and software in a Windows networked environment. The courses in this certificate help prepare students to take the Microsoft exams to earn an MCSA.

### CERTIFICATE OF PROFICIENCY

Program Requirements	Units
CSNT 110 Hardware and O.S. Fundamentals	3
CSNT 111 Networking Fundamentals	3
CSNT 120 Windows Client	3
CSNT 121 Windows Server	3
<b>Electives (Select 1 course)</b>	
CSNT 140 Linux Administration	2
CSNT 222 Managing a Windows Infrastructure	2
<b>TOTAL UNITS</b>	<b>14</b>

## Network Engineer - MCSE

Network Engineers are qualified to effectively plan, implement, maintain, troubleshoot and support networks in a wide range of computing environments using Microsoft Windows. The courses in this certificate help students prepare to take the Microsoft exams to earn an MCSE.

### CERTIFICATE OF PROFICIENCY

Program Requirements	Units
CSNT 121 Windows Server	3
CSNT 221 Windows Infrastructure Administration	3
CSNT 224 Active Directory Services Administration	3
<b>Group One Electives (Select 1 course)</b>	
CSNT 230 Design Windows Active Directory & Infrastructure	2
CSNT 231 Design Windows Network Security	2
<b>Group Two Electives (Select 2 courses)</b>	
CSNT 141 Linux Networking and Security	2
CSNT 222 Managing a Windows Infrastructure	2
CSNT 230 Design Windows Active Directory & Infrastructure	2
CSNT 231 Design Windows Network Security	2
CSNT 235 Microsoft Exchange Server	2
CSDB 210 SQL Server Administration	2
CSDB 220 SQL Server Programming	3
<b>TOTAL UNITS</b>	<b>15 - 16</b>