

Computer Networking Systems Technician

FACULTY

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http://www.bates.ctc.edu/ComputerNetworking

Computer network systems technicians link the hardware and software that comprise computer data communications. They install, configure and maintain network components, work on client workstations, servers, domain controllers, shared printers, cables, and DSL routers. They maintain network equipment, applications, tools, and user interfaces; troubleshoot local and wide area networks; and follow the processes and procedures necessary to preserve the capability, integrity, and reliability of a networking environment. Students are encouraged to obtain certifications, including CET, Comp TIA A+, Microsoft MCP, MCSE, CCNA, and Cisco CCNP, and CCSP. **Note:** Bates Technical College is an official Cisco Networking Academy.

Associate of Technology Degree: 106 credits

Computer Networking Systems Technician

	Credits/Hours
Completion Range: 17-23 Months	
ATCS 091 Occupational Human Relations	1/17
ATCS 092 Occupational Communications	2/33
LIB 099 Basic Information Literacy	1/16
ELTCH 105 DC Fundamentals	3/50
ELTCH 106 DC Lab	1/16
ELTCH 107 AC Fundamentals	3/50
ELTCH 108 AC Lab	1/16
ELTCH 115 Analog Fundamentals	3/50
ELTCH 116 Analog Lab	1/16
ELTCH 125 Digital, Logic Fundamentals	3/50
ELTCH 126 Digital Logic Lab	1/16
ELTCH 135 Microcontrollers	3/50
ELTCH 136 Microcontrollers Lab	1/16
APLUS 161 Operating Systems Theory	4/65
APLUS 162 O/S Applied Lab	5/85
APLUS 171 PC Hardware Maintenance	4/65
APLUS 172 Hardware Applications Lab	4/65
CCNA 160 Cisco Internetworking Fundamentals	4/70
CCNA 165 Cisco Routing Theory & Technology	4/70
CCNA 170 Cisco Advanced Routing, Switching	4/70
CCNA 175 Cisco Advanced Networks	4/70
CCNA 181 Advanced Networking Applications Lab	8/135
CCNP 210 Advanced Routing	5/85
CCNP 215 Remote Access	5/85
CCNP 220 Advanced Switching	5/85
CCNP 225 Advanced Troubleshooting	5/85
CCNP 231 Advanced Applications Lab	8/135
CCSP 271 Firewall Security	6/100
CCSP 272 Intrusion Detection Systems	6/100
CCSP 273 Managing Cisco Security	6/100
CCSP 274 Virtual Private Networks (VPN's)	6/100
CIS 108 Fundamentals of UNIX	4/70
CFOR 101 Computer Forensics I	3/50
CFOR 105 Computer Forensics II	3/50
MCSE 210 MS Client Operating System	5/85
MCSEL 210 MS Client Operating System Lab	3/50
MCSE 215 Server	5/85
MCSEL 215 Server Applied Lab	3/50
MCSE 216 Network Infrastructure	5/85
MCSEL 216 Network Infrastructure Lab	3/50
MCSE 217 Directory Services	5/85
MCSEL 217 Directory Services Applied Lab	3/50
MCSE 219 Directory Design	5/85
MCSE 220 Network Security Design	5/85
MCSE 221 Network Design	5/85
MCSE 228 SQL Server Installation & Administration	5/85
MCSE 229 SQL Server Database Design	5/85
MCSEL 249 Advanced Infrastructure Lab I	5/85
MCSEL 250 Advanced Infrastructure Lab II	5/85

General Education Requirements

	Credits
100-level or> Human Relations – HREL, PSYCH, SOC or CMST	5
100-level or> Communications – ENGL or CMST	5
100-level or> Mathematics – MATH	5
CMPL 111 Basic Applications	3

Certificate of Competency: 77 credits

IT Support & Networking

	Credits/Hours
Completion Range: 10-16 Months	
ATCS 091 Occupational Human Relations	1/17
ELTCH 105 DC Fundamentals	3/50
ELTCH 106 DC Lab	1/16
ELTCH 107 AC Fundamentals	3/50
ELTCH 108 AC Lab	1/16
ELTCH 115 Analog Fundamentals	3/50
ELTCH 116 Analog Lab	1/16
ELTCH 125 Digital, Logic Fundamentals	3/50
ELTCH 126 Digital Logic Lab	1/16
ELTCH 135 Microcontrollers	3/50
ELTCH 136 Microcontrollers Lab	1/16
APLUS 161 Operating Systems Theory	4/65
APLUS 162 O/S Applied Lab	5/85
APLUS 171 PC Hardware Maintenance	4/65
APLUS 172 Hardware Applications Lab	4/65
CCNA 160 Cisco Internetworking Fundamentals	4/65
CCNA 165 Cisco Routing Theory & Technology	4/65
CCNA 170 Cisco Advanced Routing, Switching	4/65
CCNA 175 Cisco Advanced Networks	4/65
CCNA 181 Advanced Networking Applications Lab	8/135
CCNP 210 Advanced Routing	5/85
CCNP 215 Remote Access	5/85
CCNP 220 Advanced Switching	5/85
CCNP 225 Advanced Troubleshooting	5/85
CCNP 231 Advanced Applications Lab	8/135
CCSP 271 Firewall Security	6/100
CCSP 272 Intrusion Detection Systems	6/100
CCSP 273 Managing Cisco Security	6/100
CCSP 274 Virtual Private Networks (VPN's)	6/100
CIS 108 Fundamentals of UNIX	4/70
MCSE 210 MS Client Operating System	5/85
MCSEL 210 MS Client Operating System Lab	3/50
MCSE 215 Server	5/85
MCSEL 215 Server Applied Lab	3/50
MCSE 216 Network Infrastructure	5/85
MCSEL 216 Network Infrastructure Lab	3/50
MCSE 217 Directory Services	5/85
MCSEL 217 Directory Services Applied Lab	3/50
MCSE 219 Directory Design	5/85
MCSE 220 Network Security Design	5/85
MCSE 221 Network Design	5/85
MCSE 228 SQL Server Installation & Administration	5/85
MCSE 229 SQL Server Database Design	5/85
MCSEL 249 Advanced Infrastructure Lab I	5/85
MCSEL 250 Advanced Infrastructure Lab II	5/85

General Education Requirements

	Credits
90-level or> Human Relations – HREL, PSYCH, SOC or CMST	3
90-level or> Communications – ENGL or CMST	3
90-level or> Mathematics – MATH	3
CMPL 111 Basic Applications	3

90-level credit units apply toward meeting certificate requirements, but do not apply toward degree requirements.

After completion of required general education, industry-specific and major competencies, students may choose any combination of electives from the following programs:
Wireless Voice & Data Communications; Computer Networking Systems Technician; Information Technologies Specialist; Electrical Power & Process Automation.