

**Central Carolina Community College**  
**Program Planning Guide**

**Telecommunications Installation and Maintenance**  
**Credential: Diploma in Telecommunications Installation and Maintenance**  
**D50380**

The Telecommunications Installation and Maintenance curriculum prepares individuals for jobs in the telecommunications industry. It provides fundamental training for new students and provides upgrade training for current employees of telecommunications companies. Coursework includes basic electricity, cable splicing, fiber optics, LAN/WAN, cable fault location and repair, central office administration, standards and codes, and other related topics. Emphasis is placed on hands-on installation and maintenance training. A graduate should be prepared to work in the telecommunications industry in outside plant operations, on central office equipment, and on business communication equipment.

Program Length: 3 semesters

Career Pathway Options: Diploma in Telecommunications Installation and Maintenance

Program Sites: North Carolina School of Telecommunications. Day and selected evening courses. Corporate and career-centered programs.

Suggested Course Schedule:	HOURS			Grade	Semester	Notes
	Class	Lab	Credit			
<b>1st Semester (Fall)</b>						
TCT 103	Installer Level I Cabling	1	2	2		
TEL 100	Telecommunication Basic Electricity	3	0	3		
TEL 105	Fiber Optics: Splicing	1	2	2		
TEL 106	Fiber Optics: Connectors	1	2	2		
TEL 108	Comdial Key Systems	0	2	1		
TEL 201	Station Installation and Repair	1	2	2		
TEL 202	Cable Splicing	1	2	2		
TEL 203	Cable Fault Locatino	0	2	1		
TEL 205	Digital Central Office Administration	1	2	2		
TEL 209	ADSL Installation	0	2	1		
		9	18	18		
<b>2nd Semester (Spring)</b>						
<i>See Below</i>	Business Elective			3		
CIS 111 <sup>(1)</sup>	Basic PC Literacy	1	2	2		
ENG 102 <sup>(2)</sup>	Applied Communication II	3	0	3		
	Humanities/Fine Arts Elective			3		
<b>OR</b>	Social/Behavioral Science Elective					
MAT 101 <sup>(3)</sup>	Applied Math I	2	2	3		
<i>See Below</i>	Major Elective ( <i>take 3 SHC</i> )			3		
		12	4	17		
<b>3rd Semester (Summer)</b>						
<i>See Below</i>	Major Elective ( <i>take 6 SHC</i> )			6		
<b>Business Electives (Choose one course)</b>						
BUS 110	Introduction to Business	3	0	3		
BUS 125	Personal Finance	3	0	3		
BUS 137	Principles of Management	3	0	3		
BUS 151	People Skills	3	0	3		
BUS 152	Human Relations	3	0	3		

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BUS 230	Small Business Management	3	0	3
BUS 255	Organizational Behavior in Business	3	0	3
BUS 270	Professional Development	3	0	3
BUS 280	REAL Small Business	4	0	4

**Major Electives (Select a minimum of 9 SHC from one group)**

Telecommunications Group:

ELC 144	OTDR Operation	1	0	1
NET 113	Home Automation Systems	2	2	3
TEL 102	Pole Climbing	0	2	1
TEL 104	CATV Installation & Repair: Distrib.	0	2	1
TEL 109	T-1 Span Line Maintenance	0	2	1
TEL 204	Transmission Fundamentals	2	0	2
TCT 100	Telco Safety Regulations	1	2	2
TCT 101	Vault Management	1	2	2
TCT 102	Underground Locating	1	2	2
TCT 104	Installer Level 2 Copper	1	2	2
TCT 105	Installer Level 2 Fiber	1	2	2
TCT 106	Technician Level Cabling	1	2	2

Small Home/Small Office Networking Group:

NET 113	Home Automation Systems	2	2	3
NET 125	Networking Basics	1	4	3
NET 126	Routing Basics	1	4	3
NET 175	Wireless Technologies	2	2	3

Networking Infrastructure Group

NET 116	Fundamentals of Voice/Data Cable	2	2	3
NET 125	Networking Basics	1	4	3
NET 126	Routing Basics	1	4	3
NET 225	Routing and Switching	1	4	3
NET 230	Wide Area Networking	2	2	3

<sup>(1)</sup>May substitute CIS 110

<sup>(2)</sup>May substitute ENG 111/111A

<sup>(3)</sup>May substitute MAT 140 or higher

Total Semester Hours Credit: 41