**Curriculum Description**

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 the telecommunications companies.

Course work includes basic electricity, cable splicing, fiber optics, LAN-copper, cable fault location and repair, central office administration and other related topics. Emphasis is placed on hands-on installation and maintenance training.

A graduate will be prepared to work in the telecommunication industry in outside plant operations, on central office equipment, and business communications equipment.

**Curriculum Requirements***

*for associate degree, diploma, and certificate programs in accordance with 1D SBCCC 400.97 (3)*

I. **General Education.** Degree programs must contain a minimum of 15 semester hours including at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural sciences/mathematics. Degree programs must contain a minimum of 6 semester hours of communications. Diploma programs must contain a minimum of 6 semester hours of general education; 3 semester hours must be in communications. General education is optional in certificate programs.

II. **Major Hours.** AAS, diploma, and certificate programs must include courses which offer specific job knowledge and skills. Work-based learning may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit. *See second page for additional information.*

III. **Other Required Hours.** A college may include courses to meet graduation or local employer requirements in a certificate, diploma, or associate in applied science program. These curriculum courses shall be selected from the Combined Course Library and must be approved by the System Office prior to implementation. Restricted, unique, or free elective courses may not be included as other required hours.

<table>
<thead>
<tr>
<th></th>
<th>AAS</th>
<th>Diploma</th>
<th>Certificate</th>
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<tbody>
<tr>
<td>Minimum General Education Hours</td>
<td>15</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Minimum Major Hours</td>
<td>49</td>
<td>30</td>
<td>12</td>
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<tr>
<td>Other Required Hours</td>
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<td>0-4</td>
<td>0-1</td>
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<tr>
<td><strong>Total Semester Hours Credit in Program</strong></td>
<td><strong>64-76</strong></td>
<td><strong>36-48</strong></td>
<td><strong>12-18</strong></td>
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*Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and basic use of computers.*
**Major Hours**

[ref. ID SBCCC 400.97 (3)]

A. **Core.** The subject/course core is comprised of subject areas and/or specific courses which are required for each curriculum program. A diploma program offered under an approved AAS program standard or a certificate which is the highest credential level awarded under an approved AAS program standard must include a minimum of 12 semester hours credit derived from the subject/course core of the AAS program.

B. **Concentration (if applicable).** A concentration of study must include a minimum of 12 semester hours credit from required subjects and/or courses. The majority of the course credit hours are unique to the concentration. The required subjects and/or courses that make up the concentration of study are in addition to the required subject/course core.

C. **Other Major Hours.** Other major hours must be selected from prefixes listed on the curriculum standard. A maximum of 9 semester hours of credit may be selected from any prefix listed, with the exception of prefixes listed in the core or concentration. Work-based learning may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit.

### Telecommunications Installation and Maintenance (Diploma) D50380

<table>
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<tr>
<th>Minimum Major Hours Required</th>
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<th>Diploma</th>
<th>Certificate</th>
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<tbody>
<tr>
<td>A. <strong>CORE</strong></td>
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</table>

**Required Courses:**

- TCT 103 Installer Level 1 Cabling 2 SHC
- TEL 100 Telecommunications Basic Electricity 3 SHC
- TEL 105 Fiber Optics Splicing 2 SHC
- TEL 106 Fiber Optics Connectors 2 SHC
- TEL 108 Comdial Key Systems 1 SHC
- TEL 201 Station Installation and Repair 2 SHC
- TEL 202 Cable Splicing 2 SHC
- TEL 203 Cable Fault Location 1 SHC
- TEL 205 Digital Central Office Administration 2 SHC

**Required Subject Areas:**

None

B. **CONCENTRATION (Not applicable)**

C. **OTHER MAJOR HOURS**

To be selected from the following prefixes:

- BPR, BUS, CIS, CSC, CTS, DFT, ELC, ISC, MAT, NET, NOS, TCT, TEL, and WBL

*Up to two semester hour credits may be selected from ACA.*

*Up to three semester hour credits may be selected from the following prefixes: ARA, ASL, CHI, FRE, GER, ITA, JPN, LAT, POR, RUS and SPA.*