**Curriculum Description**

The Medical Laboratory Technology curriculum prepares individuals to perform clinical laboratory procedures in chemistry, hematology, microbiology, and immunohematology that may be used in the maintenance of health and diagnosis/treatment of disease.

Course work emphasizes mathematical and scientific concepts related to specimen collection, laboratory testing and procedures, quality assurance and reporting/recording and interpreting findings involving tissues, blood, and body fluids.

Graduates may be eligible to take the examination given by the Board of Certification of the American Society for Clinical Pathology. Employment opportunities include laboratories in hospitals, medical offices, industry, and research facilities.

**Curriculum Requirements**

*for associate degree, diploma, and certificate programs in accordance with 1D SBCCC 400.10*

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>
</tr>
<tr>
<td>Other Required Hours</td>
<td>0-7</td>
<td>0-4</td>
<td>0-1</td>
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<tr>
<td><strong>Total Semester Hours Credit (SHC)</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

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.

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**Medical Laboratory Technology A45420**

<table>
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<tr>
<th>Minimum Major Hours Required</th>
<th>AAS</th>
<th>Diploma</th>
<th>Certificate</th>
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<tbody>
<tr>
<td>A. CORE</td>
<td>49 SHC</td>
<td>30 SHC</td>
<td>12 SHC</td>
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</tbody>
</table>

**Required Courses:**
- MLT 110 Intro to Medical Laboratory Tech 3 SHC
- MLT 111 Urinalysis and Body Fluids 2 SHC
- MLT 120 Hematology/Hemostasis 4 SHC
- MLT 130 Clinical Chemistry 4 SHC

**Required Subject Areas:**
- Microbiology. Select one set of courses.
  - MLT 140 Introduction to Microbiology 3 SHC
  - MLT 240 Special Clinical Microbiology 3 SHC or
- BIO 175 General Microbiology I 3 SHC
- MLT 141 General Clinical Microbiology 3 SHC

- Anatomy & Physiology. Select one course/sequence:
  - BIO 163 Basic Anatomy and Physiology 5 SHC or
  - BIO 165 Anatomy and Physiology I 4 SHC &
  - BIO 166 Anatomy and Physiology II 4 SHC or
  - BIO 168 Anatomy and Physiology I 4 SHC &
  - BIO 169 Anatomy and Physiology II 4 SHC or
- MLT 116 Anatomy and Medical Terminology 5 SHC

- Immunohematology. Select 5 SHC:
  - MLT 125 Immunohematology I 5 SHC
  - MLT 126 Immunology and Serology 2 SHC
  - MLT 127 Transfusion Medicine 3 SHC

*Continued on next page*
### Medical Laboratory Technology A45420 (Continued)

#### Chemistry. Select one course/sequence:
- **CHM 130** General, Organic and Biochemistry 3 SHC &
- **CHM 130A** General, Organic, and Biochemistry 1 SHC or
- **CHM 131** Introduction to Chemistry 3 SHC &
- **CHM 131A** Introduction to Chemistry Lab 1 SHC &
- **CHM 132** Organic and Biochemistry 4 SHC or
- **CHM 151** General Chemistry I 4 SHC &
- **CHM 152** General Chemistry II 4 SHC or
- **MLT 118** Medical Laboratory Chemistry 3 SHC

#### Clinical Experience. Select at least 13 SHC:
- **MLT 251** MLT Practicum I 1 SHC
- **MLT 252** MLT Practicum I 2 SHC
- **MLT 253** MLT Practicum I 3 SHC
- **MLT 254** MLT Practicum I 4 SHC
- **MLT 255** MLT Practicum I 5 SHC
- **MLT 257** MLT Practicum I 8 SHC
- **MLT 259** MLT Practicum I 11 SHC
- **MLT 283** MLT Practicum I 13 SHC
- **MLT 261** MLT Practicum II 1 SHC
- **MLT 262** MLT Practicum II 2 SHC
- **MLT 263** MLT Practicum II 3 SHC
- **MLT 264** MLT Practicum II 4 SHC
- **MLT 265** MLT Practicum II 5 SHC
- **MLT 266** MLT Practicum II 6 SHC
- **MLT 267** MLT Practicum II 8 SHC
- **MLT 269** MLT Practicum II 11 SHC
- **MLT 285** MLT Practicum II 13 SHC
- **MLT 271** MLT Practicum III 1 SHC
- **MLT 272** MLT Practicum III 2 SHC
- **MLT 273** MLT Practicum III 3 SHC
- **MLT 274** MLT Practicum III 4 SHC
- **MLT 275** MLT Practicum III 5 SHC
- **MLT 276** MLT Practicum III 6 SHC
- **MLT 277** MLT Practicum III 8 SHC

### B. CONCENTRATION (Not applicable)

### C. OTHER MAJORS

To be selected from the following prefixes:

BIO, BTC, CHM, CIS, CSC, HSC, MED, MLT, 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.*