

## PROGRAMS

### COMPUTER ENGINEERING TECHNOLOGY - HARDWARE AND SOFTWARE SUPPORT (A40160SU)

**Pathway Description:** These curriculums are designed to prepare students through the study and application of principles from mathematics, natural sciences, and technology and applied processes based on these subjects.

Course work includes mathematics, natural sciences, engineering sciences and technology.

Graduates should qualify to obtain occupations such as technical service providers, materials and technologies testing services, process improvement technicians, engineering technicians, construction technicians and managers, industrial and technology managers, or research technicians.

**Computer Engineering Technology:** A course of study that prepares the students to use basic engineering principles and technical skills for installing, servicing, and maintaining computers, peripherals, networks, and microprocessor and computer-controlled equipment. Includes instruction in mathematics, computer electronics and programming, prototype development and testing, systems installation and testing, solid state and microminiature circuitry, peripheral equipment, and report preparation.

Graduates should qualify for employment opportunities in electronics technology, computer service, computer networks, server maintenance, programming, and other areas requiring knowledge of electronic and computer systems. Graduates may also qualify for certification in electronics, computers, or networks.

#### Associate in Applied Science Degree Program

|                          |                           | Course Hours Per Week |           | Semester Hours |
|--------------------------|---------------------------|-----------------------|-----------|----------------|
| First Semester (Fall)    |                           | Class                 | Lab       | Credit         |
| ACA-115                  | Success & Study Skills    | 0                     | 2         | 1              |
| CIS-110                  | Introduction to Computers | 2                     | 2         | 3              |
| ELC-131                  | Circuit Analysis I        | 3                     | 3         | 4              |
| NET-125                  | Introduction to Networks  | 1                     | 4         | 3              |
| SEC-110                  | Security Concepts         | 2                     | 2         | 3              |
| <b>Credit Hours</b>      |                           | <b>8</b>              | <b>13</b> | <b>14</b>      |
| Second Semester (Spring) |                           |                       |           |                |
| CTI-110                  | Web, Pgm, & Db Foundation | 2                     | 2         | 3              |
| ELN-131                  | Analog Electronics I      | 3                     | 3         | 4              |
| ENG-111                  | Writing and Inquiry       | 3                     | 0         | 3              |
| MAT***                   | MAT-121 or MAT-171        | 2-3                   | 2         | 3-4            |
| NET-126                  | Switching and Routing     | 1                     | 4         | 3              |
| <b>Credit Hours</b>      |                           | <b>11-12</b>          | <b>11</b> | <b>16-17</b>   |

|  |  | Course Hours Per Week |              | Semester Hours |
|--|--|-----------------------|--------------|----------------|
| <b>Third Semester (Summer)</b>               |  |                       |              |                |
| ELN-133                                      | Digital Electronics  | 3                     | 3            | 4              |
| NOS-120                                      | Linux/UNIX Single User                                       | 2                     | 2            | 3              |
| PHY-131 or<br>PHY-151                        | Physics-Mechanics or<br>College Physics I                    | 3                     | 2            | 4              |
| <b>Credit Hours</b>                          |  | <b>8</b>              | <b>7</b>     | <b>11</b>      |
| <b>Fourth Semester (Fall)</b>                |  |                       |              |                |
| CET-111                                      | Computer Upgrade/Repair I                                    | 2                     | 3            | 3              |
| CSC-134                                      | C++ Programming  | 2                     | 3            | 3              |
| ENG-112 or<br>ENG-114                        | Writing/Research in the Disc or<br>Prof Research & Reporting | 3                     | 0            | 3              |
| ***  | Humanities/Fine Arts Elective                                | 3                     | 0            | 3              |
| <b>Credit Hours</b>                          |  | <b>10</b>             | <b>6</b>     | <b>12</b>      |
| <b>Fifth Semester (Spring)</b>               |  |                       |              |                |
| CET-211                                      | Computer Upgrade/Repair II                                   | 2                     | 3            | 3              |
| ELN-232                                      | Intro to Microprocessors                                     | 3                     | 3            | 4              |
| NOS-130                                      | Windows Single User  | 2                     | 2            | 3              |
| ***  | Social/Behavioral Sciences Elective                          | 3                     | 0            | 3              |
| ***  | Technical Elective   | 0-2                   | 2-30         | 3              |
| <b>Credit Hours</b>                          |  | <b>10-12</b>          | <b>10-38</b> | <b>16</b>      |
| Total Required Minimum Semester Hours Credit |  |                       |              | 69             |

| Technical Electives: Please select one of the following: |                          | Class | Lab | Credit |
|--|--------------------------|-------|-----|--------|
| CIS-115  | Intro to Prog & Logic    | 2     | 3   | 3      |
| CTI-140  | Virtualization Concepts  | 1     | 4   | 3      |
| DBA-110  | Database Concepts        | 2     | 3   | 3      |
| NET-225  | Enterprise Networking    | 1     | 4   | 3      |
| NOS-230  | Windows Administration I | 2     | 2   | 3      |

If you choose WBL as a Technical Elective, you must complete 3 Credit Hours from the classes below.

|          |                               |   |    |   |
|----------|-------------------------------|---|----|---|
| WBL-111E | Work-Based Learning I         | 0 | 10 | 1 |
| WBL-112E | Work-Based Learning I         | 0 | 20 | 2 |
| WBL-113E | Work-Based Learning I         | 0 | 30 | 3 |
| WBL-115E | Work-Based Learning Seminar I | 1 | 0  | 1 |
| WBL-121E | Work-Based Learning II        | 0 | 10 | 1 |
| WBL-122E | Work-Based Learning II        | 0 | 20 | 2 |

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