

# Core Student Competencies

*for the appropriate level of study*

**BS/3+2BS – Cyber Systems Technology (CST)<sup>+</sup>**

**Concentrations: (a) Network Security & Electronics (NET); (b) Tech Systems (TS)**

**AAS – Technology**

**Concentration: Computer Electronics**

**Networking, Computer System, and Electricity & Electronics**

**Knowledge and Skills**

The **student competencies** that have been approved by the curriculum and advisory committees for the appropriate level of study:

- (i) ***Graduates of the program will demonstrate essential networking knowledge and skills in a LAN/WAN environment.*** Install, configure, update, monitor, manage/administer, audit, secure and troubleshoot networking (wired and wireless) hardware and software systems, and applications based on standard networking models, cloud computing, IoT, and cyber systems. Think critically and creatively, and communicate this technical information effectively, and provide suitable recommendations regarding the network.
- (ii) ***Graduates of the program will demonstrate essential computer system knowledge and skills.*** Install, assemble, configure, update, manage/administer, monitor, audit, secure, backup and troubleshoot computer hardware, and software, peripherals, operating systems, and applications. Think critically and creatively, and communicate this technical information effectively, and provide suitable recommendations regarding the computer system.
- (iii) ***Graduates of the program will demonstrate essential electricity/electronics knowledge and skills.*** Draw and simulate electrical/electronics (analog/digital) circuit diagrams, interpret schematics and datasheets. Using appropriate safety precautions construct/prototype, perform measurements, test, and troubleshoot circuits, components, and devices. Apply fundamental theories and suitable mathematics to solve problems related to electricity/electronics. Think critically and creatively, and communicate this technical information effectively, and provide suitable recommendations regarding the electrical/electronic system.

<sup>+</sup>formerly, Computer Electronic Networking (CEN)/Network Security & Electronics (NET)