**LEARNING OUTCOMES**

**APPLIED SCIENCES & TECHNOLOGY PROGRAMMES**

**Certificate**

* Electrical Wiring Technology
* Electronics Technology
* Heating, Ventilation & Air Conditioning
* Motor Vehicle Technology
* Plumbing Technology
* Wood Technology

**Associate in Applied Science Degree**

* Electronics Technology
* Heating, Ventilation & Air Conditioning
* Motor Vehicle Technology
* Plumbing Technology
* Wood Technology

**Diploma**

* Electronics Technology
* Heating, Ventilation & Air Conditioning
* Masonry Technology
* Motor Vehicle Technology
* Plumbing Technology
* Wood Technology

The general programme goals and learning outcomes must be met as well as the specific subject area goals and learning outcomes.

**GOALS**

The purpose of the programmes is to expand student knowledge in the area of Applied Science and Technology in the following ways:

* develop scientific, critical thinking, and reasoning skills
* develop information technology/computing skills
* develop oral and written communication skills
* develop a safety and a professional code of practice
* develop mathematical skills/ competencies
* develop a cultural/artistic/global perspective
* develop project management skills

**LEARNING OUTCOMES**

1. **Scientific Inquiry /Critical Thinking/Reasoning Skills**
2. Students will demonstrate their ability to investigate scientific principles and to think critically by discussing, analyzing and selecting appropriate scientific and technical principles, techniques, procedures and resources to undertake predefined tasks appropriate to a specific curriculum.
3. Investigate scientific principles
4. Analyze appropriate scientific and technical principles for predefined tasks
5. Select appropriate scientific and technical procedures and resources to undertake predefined tasks

 Certificate, Diploma, Associate

1. **Information Technology/ Computing Skills**
2. Students will demonstrate an understanding of information technology skills by using modern technology, software, communication tools, and/or networks to access, retrieve, analyze, process, and communicate information.
3. Apply information technology skills with the use of appropriate software and/or networks to access, retrieve, analyze, process, and communicate information
4. Use communication tools to analyze, process, and communicate information

 Certificate, Diploma, Associate

1. **Oral and Written Communication**
2. Students will demonstrate their communication skills by reading, writing, and speaking effectively using oral, written and electronic methods for communicating technical and other information. Students will also demonstrate their ability to work effectively with colleagues, clients, and the public.
3. Practice using effective communication skills
4. Demonstrate how to work effectively with colleagues, clients, and the public (stakeholders)

 Certificate, Diploma, Associate

1. **Safety and a Professional Code of Practice**
2. Students will demonstrate a personal commitment to the appropriate code of practice, manage and apply safe systems of work and recognize their obligations of good work practice to society, the profession and the environment at large.
3. Choose the appropriate code of practice
4. Apply safe systems of work
5. Employ good work practice in the profession

 Certificate, Diploma , Associate

1. **Mathematical Skills/Competencies**
2. Students will demonstrate their ability to think mathematically by using problem-solving skills which include estimation, computation, analysis, assimilation, application, and transference, as well as implementation of appropriate technology.
3. Use mathematical problem-solving skills
4. Implement use of appropriate technology

 Certificate, Diploma, Associate

1. **A Cultural/Artistic/Global Perspective**
2. Students will demonstrate their awareness of a cultural/artistic/global perspective by discussing the quality, value, and significance of cultural/artistic artifacts and/or by discussing political, historical, economic, and social issues from a global perspective.
3. Analyse political, historical, economic, and social issues from a global perspective
4. Examine artifacts from a cultural/artistic/global perspective

Diploma, Associate

1. **Project Management Skills**
2. Students will exhibit their ability to develop and manage a project by developing a critical path for project completion within specified time and budget constraints by organizing and integrating required skills and resources.
3. Manage a project within a specified time and budget constraints
4. Integrate required skills and resources

Diploma