DIPLOMA IN OIL AND GAS – PROCESS OPERATIONS (PROCESS TECHNICIAN)

I. OVERVIEW

The **Diploma in Oil and Gas – Process Operations** focuses on the development of the underlying principles and practical skills required in the oil and gas industry. The qualification is designed to deliver a high level of occupational capability and provide a sound foundation for progression. The qualification meets the needs of learners who work or desire to work in the oil and gas industry and provides a broad background of understanding of the oil and gas industry and the practical skills and knowledge required. The mission of this programme is to provide learners with adequate knowledge and expertise to produce, process and deliver oil and gas while ensuring operational safety and quality performance on plant equipment.

II. ENTRY REQUIREMENTS

To gain entry into this programme the candidate is required to have:

- Five (5) CXC subjects, inclusive of Mathematics and Science (Chemistry, Physics or Integrated Science) or a postsecondary Technician's Diploma from an approved postsecondary education. If the student does not have the required Mathematics or Science subjects, KSPTL shall offer Mathematics and Science Bridging programmes to ensure students attain the necessary academic requiem to pursue the programme.

  OR

- Mature Entry Route: Candidate required to be 21 years or older, having two or more years relevant work experience as well as General Certificate of Education (GCE) Ordinary Level (or equivalent High School qualification) Mathematics and English.

III. AIM

The aim of this programme is to provide an extensive background and understanding of the oil andgas industry and the practical skills and knowledge required to operate in the industry.

IV. COURSE CONTENT

Some of the units to be delivered include:

- **KOPT 110 - Oil and Gas Principles**
  This unit gives learners an understanding and appreciation of history of oil and gas.

- **KOPT 120 - Process Operations Fundamentals**
  This unit gives learners the competences needed to select, identify, and understand various pipes, valves and fittings widely used within the oil and gas industry. The unit will enable the learner to discuss advantages, identify purpose and operations and perform operational and maintenance checks on these components.

- **KOPT 130 - Workplace Communication, Behaviour and Relationships**
  This unit gives learners the competences needed to enable the candidate to create and foster productive working relationships within the workplace. The candidate will be able to promote strong work ethics, understand their communication lines as it relates to their role and responsibility. Finally, the candidate will be able to conduct a thorough, efficient and safe transfer of information to other parties involved in workplace activities.

- **KOPT 140 - Emergency Response Procedures**
  This unit gives learners the competences needed to execute an emergency response guided by the safety policies, practices and procedures of the workplace. The candidate will understand how to implement measures of control in critical situations, respond and uphold a state of readiness. The learner will understand how to utilize resources at the workplace to ensure they can competently respond to an emergency.

- **KOPT 150 - Roles and Responsibilities**
  This unit gives learners the competences needed to have a basic understanding of the roles and responsibilities of an operator. The learner will understand the checks and verifications that are conducted on equipment frequently used by operators.

- **KOPT 210 - Safe Systems to Work**
  This unit gives learners the competences needed to become proficient in executing all job-related tasks competently while practicing and upholding and health and safety protocols. The learner will become well versed in the application of stringent safety systems within the oil and gas industry.

- **KOPT 220 - Safe Isolation and Reinstatement Operations**
  This unit gives learners the competences needed to enable the candidate to identify, assess and address defects and variations in Process plant and equipment. The unit will detail the use of root causes analysis as an effective technique when identifying defects and faults.

- **KOPT 230 - Maintain Steady State Conditions in Operations**
  This unit gives learners the competences needed to prepare the perform checks, operate, and ensure proper function ability of an integrated system. The learner will understand how to achieve a steady state through appropriate processes and methods.

V. INSTRUCTIONAL TECHNIQUES

The Diploma in Oil and Gas – Process Operations will be delivered using blended modalities. The following teaching strategies will be used to promote individual and group-based learning: case studies, collaborative learning activities, debates, group-based online discussions, group projects, individual assignments, individual projects, lectures, reading and research, presentations and weekly discussions.

V1. ASSESSMENT METHODS

All units will be assessed through a combination of demonstration of practical skills, product evidence, simulations, projects, observation, and written examinations.