

RelyOn Nutech
360° Safety



MODULE CATALOG



GLOBAL TECHNICIAN TRAINING PROGRAM

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COST SHEET

MODULE	COST
Principles and Applications of Predictive Maintenance (Level 2)	\$916.00
Case Studies - Predictive Maintenance (Level 4)	\$2,590.00
Care and Maintenance of Flanges, Joints and Fittings (Level 2)	\$916.00
Case Studies-Flanges, Joints and Fittings (Level 4).....	\$2,590.00
Function of Distributed/Integrated Control & Safety Systems (Level 2).....	\$916.00
Case Studies - Integrated Control & Safety Systems (Level 4)	\$2,590.00
Case Studies -Electrical Safety (Level 4)	\$2,590.00
Functions of Equipment in Electrical Generation and Distribution Systems (Level 2).....	\$916.00
Case Studies - Electrical Generation and Distribution Equipment (Level 4)	\$2,590.00
Components and Operation of Gas Processing and Storage Systems (Level 2).....	\$916.00
Principles and Components of High Voltage Systems (Level 2)	\$916.00
Case Studies - High Voltage Systems (Level 4)	\$2,590.00
Care, Maintenance and Use of Industrial Hoses (Level 2).....	\$916.00
Hydraulic Components and Applications (Level 2).....	\$916.00
Case Studies – Hydraulics (Level 4)	\$2,590.00
Leak Testing Methodologies (Level 2).....	\$916.00
Case Studies - Leak Testing (Level 4).....	\$2,590.00
Functions of Equipment in Low Voltage Systems (Level 2).....	\$916.00
Case Studies - Low Voltage Equipment (Level 4)	\$2,590.00
Types and Functions of Meters & Measurement Devices (Level 2).....	\$916.00
Case Study - Meters & Measurement (Level 4)	\$2,590.00
Functions and Components of Pipelines, Manifolds and Pigging Operations (Level 2).....	\$916.00
Types and Principles of Operation of Pumps (Level 2).....	\$916.00
Management and Maintenance of Pumping Systems (Level 3)	\$2,021.00
Case Studies - Pumps in the Oil/Gas Industry (Level 4).....	\$2,590.00

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Valve Maintenance and Management (Level 3)	\$2,021.00
Case Studies - Valves in the Oil/Gas Industry (Level 4)	\$2,590.00
Principles of Operation of Variable Speed Drives in the Oil/Gas Industry (Level 2)	\$916.00
Case Studies - Variable Speed Drives (Level 4).....	\$2,590.00

Principles and Applications of Predictive Maintenance

COURSE DESCRIPTION: This course will provide oil and gas technicians with the knowledge of and ability to use and contribute to, a Predictive Maintenance system/program. This includes interfacing with automated condition monitoring systems and web based machinery monitoring.

COMPETENCY LEVEL: Level 2-Application, discipline specific knowledge, 5-19 years' experience.

DISCIPLINES: Instrument Technician, Mechanical Technician, Electrical Technician

DURATION: 1 Day

LEARNING OBJECTIVES/CONTENT:

- Explain a broad-based application of PDM and the types of systems
- Describe the procedures, policies, and triggers for a physical/manual inspection
- Identify the latest techniques in condition monitoring - automatic and manual
- Describe the use of condition monitoring equipment, i.e. vibration analysis equipment, bore scopes
- Identify the key elements of a predictive maintenance program (software)

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- NCCER Credential
- Fletcher/Relyon Nutec Certificate of Completion

Case Studies - Predictive Maintenance

COURSE DESCRIPTION: This course will provide critical thinking, reasoning, leadership, and mentoring skills and attributes for oil and gas technicians interested in advancing their careers. The course will utilize technically related case studies and extensive group discussion to enhance the individual's capability to serve as a mentor and technical problem solver.

COMPETENCY LEVEL: Level 4-Participant would be nominated and have had sufficient working experience and demonstrated working skills prior to nomination. This includes individuals who have knowledge of and have demonstrated competence in their ability to coach others in the area of experience. The expectation is not for the individual to teach others; rather a sharing of knowledge, assisting others and mentoring in day-to-day activities.

DISCIPLINES: Instrument Technician, Mechanical Technician, Electrical Technician

DURATION: 3 Days

LEARNING OBJECTIVES/CONTENT:

- Describe in detail safety theories and applications
- Use advanced soft skills to help improved overall effectiveness
- Develop the ability to think critically and analytically about incidents that technicians may encounter
- Develop skills for problem solving, interpersonal, technical document creation and peer review/feedback
- Act as a mentor to less experienced oil and gas technicians
- Display ability to quantitatively evaluate technical impact on safety, business and productivity
- Develop the ability to identify and apply knowledge of current technology advancements to job responsibilities

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- Fletcher/ Relyon Nutec Certificate of Completion

Care and Maintenance of Flanges, Joints and Fittings

COURSE DESCRIPTION: This course will provide oil and gas technicians with the knowledge and skills to identify and evaluate flanges, joints and fittings. Technicians will also be able to care and maintain flanges, joints and fittings. This training is designed for technicians who have a basic to moderate level of experience with flanges, joints and fittings.

COMPETENCY LEVEL: Level 2-Application, discipline specific knowledge, 5-19 years' experience.

DISCIPLINES: Production and Control Room Technician, Instrument Technician, Mechanical Technician, Electrical Technician

DURATION: 1 Day

LEARNING OBJECTIVES/CONTENT:

- Demonstrate use of safety theories and applications for flanges and fittings
- Identify types of flanges
- Identify types of gaskets used with flanges
- Demonstrate the layout and cutting of gaskets
- Identify the location of flange bolt holes
- Identify different bolted flanges and fittings
- Describe typical operating procedures associated with different types of flanges and fittings
- Identify the technician's role in jointed and fitting maintenance
- Identify and explain the materials used in threaded piping systems
- Identify and explain pipe fittings
- Display the ability to read and interpret screwed fitting joint drawings
- Demonstrate how to thread and assemble piping, valves and flanges
- Explain in detail the safety theories and applications for flanges and fittings
- Practice Safety and Environmental hazards procedures associated with flanges and fitting operation

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- NCCER Credential
- Fletcher/ Relyon Nutec Certificate of Completion

Case Studies - Flanges, Joints and Fittings

COURSE DESCRIPTION: This course will provide critical thinking, reasoning, leadership and mentoring skills and attributes for oil and gas technicians interested in advancing their careers. The course will utilize technically related case studies and extensive group discussion to enhance the individual's capability to serve as a mentor and technical problem solver.

COMPETENCY LEVEL: Level 4-Participant would be nominated and have had sufficient working experience and demonstrated working skills prior to nomination. This includes individuals who have knowledge of and have demonstrated competence in their ability to coach others in the area of experience. The expectation is not for the individual to teach others; rather a sharing of knowledge, assisting others and mentoring in day-to-day activities.

DISCIPLINES: Production and Control Room Technician, Instrument Technician, Mechanical Technician, Electrical Technician

DURATION: 3 Days

LEARNING OBJECTIVES/CONTENT:

- Describe in detail safety theories and applications
- Use advanced soft skills to help improved overall effectiveness
- Develop the ability to think critically and analytically about incidents that technicians may encounter
- Develop skills for problem solving, interpersonal, technical document creation and peer review/feedback
- Act as a mentor to less experienced oil and gas technicians
- Display ability to quantitatively evaluate technical impact on safety, business and productivity
- Develop the ability to identify and apply knowledge of current technology advancements to job responsibilities

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- Fletcher/Relyon Nutec Certificate of Completion

Function of Distributed/Integrated Control & Safety Systems

COURSE DESCRIPTION: This course will provide oil and gas technicians with knowledge of distributed/integrated control and safety systems used in the oil and gas industry. This includes the exploration of elements and components in these systems, with descriptions and explanations of the components functions and applications. Topics include process control, fire and gas systems, ESD (Emergency Shutdown), alarms and process shutdowns.

COMPETENCY LEVEL: Level 2-Application, discipline specific knowledge, 5-19 years' experience.

DISCIPLINES: Production and Control Room Technician, Instrument Technician, Mechanical Technician, Electrical Technician

DURATION: 1 Day

LEARNING OBJECTIVES/CONTENT:

- Describe the construction principles of operation of various control valves
- Identify the construction principles of operation of various actuators
- Describe the principles of operation of various positioners
- Select the variables measured and used as inputs for various types of positioners
- Identify the valve selection criteria and identify various control valves, actuators, and positioners using specification sheets, pictures, or samples

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- NCCER Credential
- Fletcher/Relyon Nutec Certificate of Completion

Case Studies - Integrated Control & Safety Systems

COURSE DESCRIPTION: This course will provide critical thinking, reasoning, leadership, and mentoring skills and attributes for oil and gas technicians interested in advancing their careers. The course will utilize technically related case studies and extensive group discussion to enhance the individual's capability to serve as a mentor and technical problem solver.

COMPETENCY LEVEL: Level 4-Participant would be nominated and have had sufficient working experience and demonstrated working skills prior to nomination. This includes individuals who have knowledge of and have demonstrated competence in their ability to coach others in the area of experience. The expectation is not for the individual to teach others; rather a sharing of knowledge, assisting others and mentoring in day-to-day activities.

DISCIPLINES: Production and Control Room Technician, Instrument Technician, Mechanical Technician, Electrical Technician

DURATION: 3 Days

LEARNING OBJECTIVES/CONTENT:

- Describe in detail safety theories and applications
- Use advanced soft skills to help improved overall effectiveness
- Develop the ability to think critically and analytically about incidents that technicians may encounter
- Develop skills for problem solving, interpersonal, technical document creation and peer review/feedback
- Act as a mentor to less experienced oil and gas technicians
- Display ability to quantitatively evaluate technical impact on safety, business and productivity
- Develop the ability to identify and apply knowledge of current technology advancements to job responsibilities

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- Fletcher/Relyon Nutec Certificate of Completion

Case Studies -Electrical Safety

COURSE DESCRIPTION: This course will provide critical thinking, reasoning, leadership, and mentoring skills and attributes for oil and gas technicians interested in advancing their careers. The course will utilize technically related case studies and extensive group discussion to enhance the individual's capability to serve as a mentor and technical problem solver.

COMPETENCY LEVEL: Level 4-Participant would be nominated and have had sufficient working experience and demonstrated working skills prior to nomination. This includes individuals who have knowledge of and have demonstrated competence in their ability to coach others in the area of experience. The expectation is not for the individual to teach others; rather a sharing of knowledge, assisting others and mentoring in day-to-day activities.

DISCIPLINES: Electrical Technician

DURATION: 3 Days

LEARNING OBJECTIVES/CONTENT:

- Describe in detail safety theories and applications
- Use advanced soft skills to help improved overall effectiveness
- Develop the ability to think critically and analytically about incidents that technicians may encounter
- Develop skills for problem solving, interpersonal, technical document creation and peer review/feedback
- Act as a mentor to less experienced oil and gas technicians
- Display ability to quantitatively evaluate technical impact on safety, business and productivity
- Develop the ability to identify and apply knowledge of current technology advancements to job responsibilities

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- Fletcher/Relyon Nutec Certificate of Completion

Functions of Equipment in Electrical Generation and Distribution Systems

COURSE DESCRIPTION: This course will provide oil and gas technicians with a knowledge of the functions and applications of equipment found in electrical generation and distribution systems in the oil and gas industry. This includes the exploration of principles of operation, with an emphasis on safety and descriptions and explanations of the equipment's safety features and functions.

COMPETENCY LEVEL: Level 2-Application, discipline specific knowledge, 5-19 years' experience.

DISCIPLINES: Electrical Technician

DURATION: 1 Day

LEARNING OBJECTIVES/CONTENT:

- Explain the purpose of grounding and bonding and the scope of NEC Article 250
- Discusses transformer types, construction, connections, protection, grounding and maintenance
- Discuss switchboards and switchgear, including installation, grounding and maintenance requirements
- Identify the fundamentals of AC Electrical Theory
- Differentiate the various types of specialty transformers and their applications
- Define the National Electrical Code® requirements related to bonding and grounding
- Distinguish between grounded systems and equipment grounding
- Review switchgear and breaker maintenance
- Identify the various aspects of preventive and predictive maintenance
- Describe single and three phase systems
- Discuss cable and conductor installations
- Demonstrate the use of test equipment
- Explain the function of the main and system bonding jumpers in the grounding system and size the main and system bonding jumpers for various applications

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- Fletcher/Relyon Nutec Certificate of Completion

Case Studies - Electrical Generation and Distribution Equipment

COURSE DESCRIPTION: This course will provide critical thinking, reasoning, leadership, and mentoring skills and attributes for oil and gas technicians interested in advancing their careers. The course will utilize technically related case studies and extensive group discussion to enhance the individual's capability to serve as a mentor and technical problem solver.

COMPETENCY LEVEL: Level 4-Participant would be nominated and have had sufficient working experience and demonstrated working skills prior to nomination. This includes individuals who have knowledge of and have demonstrated competence in their ability to coach others in the area of experience. The expectation is not for the individual to teach others; rather a sharing of knowledge, assisting others and mentoring in day-to-day activities.

DISCIPLINES: Electrical Technician

DURATION: 3 Days

LEARNING OBJECTIVES/CONTENT:

- Describe in detail safety theories and applications
- Use advanced soft skills to help improved overall effectiveness
- Develop the ability to think critically and analytically about incidents that technicians may encounter
- Develop skills for problem solving, interpersonal, technical document creation and peer review/feedback
- Act as a mentor to less experienced oil and gas technicians
- Display ability to quantitatively evaluate technical impact on safety, business and productivity
- Develop the ability to identify and apply knowledge of current technology advancements to job responsibilities

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- Fletcher/Relyon Nutec Certificate of Completion

Components and Operation of Gas Processing and Storage Systems

COURSE DESCRIPTION: This course will provide oil and gas technicians with knowledge of the components and operation of gas processing and storage systems in the oil and gas industry. This includes an examination of component integration and their essential features and requirements, with an emphasis on components safety features, functions and applications. This includes 2 & 3 phase separation, gas dehydration, treatment for containments, tanks and storage vessels, safety considerations and essentials.

COMPETENCY LEVEL: Level 2-Application, discipline specific knowledge, 5-19 years' experience.

DISCIPLINES: Production and Control Room Technician, Instrument Technician, Mechanical Technician, Electrical Technician

DURATION: 1 Day

LEARNING OBJECTIVES/CONTENT:

- Explain basic processing of gas from crude oil distillation, cracking, and reforming
- Describe the processing that provides gas (methane, ethane, and ethylene) to power refinery operations
- Describe the processing that recover mixtures of natural gas liquids (NGLs) include propane, butane, and natural gasoline
- Identify four types of processing, refrigeration, cryogenic recovery, oil absorption and dry-bed absorption in addition extraction, distillation, and dewaxing
- Demonstrate the ability to troubleshoot and explain emergency shutdown procedures for gas processing operation
- Describe in detail safety theories and applications

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- Fletcher/Relyon Nutec Certificate of Completion

Principles and Components of High Voltage Systems

COURSE DESCRIPTION: This course will provide oil and gas technicians with knowledge of the principles and components of high voltage systems in the oil and gas industry. This includes the exploration of elements and components in these systems, with an emphasis on safety operation and practices, and descriptions and explanations of components safety features, functions and applications.

COMPETENCY LEVEL: Level 2-Application, discipline specific knowledge, 5-19 years' experience.

DISCIPLINES: Electrical Technician

DURATION: 1 Day

LEARNING OBJECTIVES/CONTENT:

- Identify the elements of high voltage generation and transmission
- Explain hazards and risk associated with high voltage
- Conduct risk minimization with high voltage, i.e. 'grounding procedures', and others
- Demonstrate the use of equipment associated with high voltage
- Explain the NEC Code Requirements
- Demonstrate the ability to identify transformers, motors, and other type of high voltage equipment
- Explain AC Electrical Theory
- Explain Lock Out/Tag Out and other safety procedures when working with high voltage
- Understand high voltage safety procedures, i.e. switching

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- NCCER Credential
- Fletcher/Relyon Nutec Certificate of Completion

Case Studies - High Voltage Systems

COURSE DESCRIPTION: This course will provide critical thinking, reasoning, leadership, and mentoring skills and attributes for oil and gas technicians interested in advancing their careers. The course will utilize technically related case studies and extensive group discussion to enhance the individual's capability to serve as a mentor and technical problem solver.

COMPETENCY LEVEL: Level 4-Participant would be nominated and have had sufficient working experience and demonstrated working skills prior to nomination. This includes individuals who have knowledge of and have demonstrated competence in their ability to coach others in the area of experience. The expectation is not for the individual to teach others; rather a sharing of knowledge, assisting others and mentoring in day-to-day activities.

DISCIPLINES: Electrical Technician

DURATION: 3 Days

LEARNING OBJECTIVES/CONTENT:

- Describe in detail safety theories and applications
- Propose technology that will help improve overall effectiveness
- Develop the ability to think critically and analytically about incidents that technicians may encounter
- Develop skills for problem solving, interpersonal, technical document creation and peer review/feedback
- Act as a mentor to less experienced oil and gas technicians
- Display ability to quantitatively evaluate technical impact on safety, business and productivity
- Develop the ability to identify and apply knowledge of current technology advancements to job responsibilities

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- Fletcher/Relyon Nutec Certificate of Completion

Care, Maintenance and Use of Industrial Hoses

COURSE DESCRIPTION: This course will provide oil and gas technicians with knowledge of and skills in the care, maintenance and use of industrial hoses in the oil and gas industry. This includes all types of hoses commonly used and their associated hazard and safety measures. The technician will explore the different types of hoses, their construction, uses, limitations and applications, with an emphasis on safety operation and practices.

COMPETENCY LEVEL: Level 2-Application, discipline specific knowledge, 5-19 years' experience.

DISCIPLINES: Production and Control Room Technician, Instrument Technician, Mechanical Technician, Electrical Technician

DURATION: 1 Day

LEARNING OBJECTIVES/CONTENT:

- Identify different types and sizes of hoses used in the industry
- Explain safety and environmental hazards associated with different hose operation
- Describe typical operating procedures associated with different types of hoses
- Select hoses based on pressure, temperature, corrosive fluids and other uses
- Describe the responsibilities regarding the selection, maintenance, and repair of hoses
- Display the ability to use safety theories and applications for hoses

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- NCCER Credential
- Fletcher/ Relyon Nutec Certificate of Completion

Hydraulic Components and Applications

COURSE DESCRIPTION: This course will provide oil and gas technicians with knowledge and skills related to the use of hydraulic systems in the oil and gas industry. This includes the exploration of elements and common components in these systems, with an emphasis on safety operation and practices, and descriptions and explanations of components safety features, functions, and applications. The technician will undertake several practical exercises in creating hydraulic systems, comprising of various hydraulic component, including fault finding and fault rectification.

COMPETENCY LEVEL: Level 2-Application, discipline specific knowledge, 5-19 years' experience.

DISCIPLINES: Production and Control Room Technician, Instrument Technician, Mechanical Technician

DURATION: 1 Day

LEARNING OBJECTIVES/CONTENT:

- Identify key elements and components in a hydraulic system
- Display ability to read hydraulic system schematic diagrams
- Explain the basic hydraulic principles
- Assemble various hydraulic systems
- Identify the consideration prior to the commencement of troubleshooting
- Demonstrate the ability to inspect hydraulic system equipment
- Perform troubleshooting in hydraulic systems
- Demonstrate the repair and/or replacement of hydraulic system components

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- NCCER Credential
- Fletcher/Relyon Nutec Certificate of Completion

Case Studies – Hydraulics

COURSE DESCRIPTION: This course will provide critical thinking, reasoning, leadership, and mentoring skills and attributes for oil and gas technicians interested in advancing their careers. The course will utilize technically related case studies and extensive group discussion to enhance the individual's capability to serve as a mentor and technical problem solver.

COMPETENCY LEVEL: Level 4-Participant would be nominated and have had sufficient working experience and demonstrated working skills prior to nomination. This includes individuals who have knowledge of and have demonstrated competence in their ability to coach others in the area of experience. The expectation is not for the individual to teach others; rather a sharing of knowledge, assisting others and mentoring in day-to-day activities.

DISCIPLINES: Production and Control Room Technician, Instrument Technician, Mechanical Technician

DURATION: 3 Days

LEARNING OBJECTIVES/CONTENT:

- Describe in detail safety theories and applications
- Use advanced soft skills to help improved overall effectiveness
- Develop the ability to think critically and analytically about incidents that technicians may encounter
- Develop skills for problem solving, interpersonal, technical document creation and peer review/feedback
- Act as a mentor to less experienced oil and gas technicians
- Display ability to quantitatively evaluate technical impact on safety, business and productivity
- Develop the ability to identify and apply knowledge of current technology advancements to job responsibilities

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- Fletcher/Relyon Nutec Certificate of Completion

Leak Testing Methodologies

COURSE DESCRIPTION: This course will provide oil and gas technicians with knowledge of and skills for leak testing methods employed in the oil and gas industry. This includes the explanations and practical applications of leak testing methods in relations to the nature of the situations or substances, with an emphasis on safety operation and practices and descriptions of components safety features, functions and applications. The technician will undertake practical exercises in leak testing methods and applications.

COMPETENCY LEVEL: Level 2-Application, discipline specific knowledge, 5-19 years' experience.

DISCIPLINES: Production and Control Room Technician, Instrument Technician, Mechanical Technician, Electrical Technician

DURATION: 1 Day

LEARNING OBJECTIVES/CONTENT:

- Explain the principles of leak testing procedures
- Identify where each methodology of leak testing would be applied; including:
 - Pressure
 - Vacuum
 - Special gases
- Hazardous gases and vapors
- Describe the circumstances under which leak testing would be applied
- Perform leak tests on various items of equipment
- Demonstrate the ability to apply safety theories and applications for leak testing

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- Fletcher/Relyon Nutec Certificate of Completion

Case Studies - Leak Testing

COURSE DESCRIPTION: This course will provide critical thinking, reasoning, leadership, and mentoring skills and attributes for oil and gas technicians interested in advancing their careers. The course will utilize technically related case studies and extensive group discussion to enhance the individual's capability to serve as a mentor and technical problem solver.

COMPETENCY LEVEL: Level 4-Participant would be nominated and have had sufficient working experience and demonstrated working skills prior to nomination. This includes individuals who have knowledge of and have demonstrated competence in their ability to coach others in the area of experience. The expectation is not for the individual to teach others; rather a sharing of knowledge, assisting others and mentoring in day-to-day activities.

DISCIPLINES: Production and Control Room Technician, Instrument Technician, Mechanical Technician, Electrical Technician

DURATION: 3 Days

LEARNING OBJECTIVES/CONTENT:

- Describe in detail safety theories and applications
- Use advanced soft skills to help improved overall effectiveness
- Develop the ability to think critically and analytically about incidents that technicians may encounter
- Develop skills for problem solving, interpersonal, technical document creation and peer review/feedback
- Act as a mentor to less experienced oil and gas technicians
- Display ability to quantitatively evaluate technical impact on safety, business and productivity
- Develop the ability to identify and apply knowledge of current technology advancements to job responsibilities

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- Fletcher/Relyon Nutec Certificate of Completion

Functions of Equipment in Low Voltage Systems

COURSE DESCRIPTION: This course will provide oil and gas technicians with knowledge of the principles and components of low voltage systems in the oil and gas industry. This includes the exploration of elements and components in these systems, with an emphasis on safety operation and practices, and descriptions and explanations of components safety features, functions and applications.

COMPETENCY LEVEL: Level 2-Application, discipline specific knowledge, 5-19 years' experience.

DISCIPLINES: Instrument Technician, Electrical Technician

DURATION: 1 Day

LEARNING OBJECTIVES/CONTENT:

- Demonstrate the principles of low voltage generation and systems
- Describe common safety and protection devices
- Identify and describe common low voltage equipment
- Describe the methods of Motor Control Center's (MCC) and associated equipment
- Explain the fundamentals of low voltage distribution
- Describe low voltage practical wiring and terminations
- Perform low voltage condition monitoring and maintenance
- Conduct low voltage practical fault finding

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- NCCER Credential
- Fletcher/Relyon Nutec Certificate of Completion

Case Studies - Low Voltage Equipment

COURSE DESCRIPTION: This course will provide critical thinking, reasoning, leadership, and mentoring skills and attributes for oil and gas technicians interested in advancing their careers. The course will utilize technically related case studies and extensive group discussion to enhance the individual's capability to serve as a mentor and technical problem solver.

COMPETENCY LEVEL: Level 4-Participant would be nominated and have had sufficient working experience and demonstrated working skills prior to nomination. This includes individuals who have knowledge of and have demonstrated competence in their ability to coach others in the area of experience. The expectation is not for the individual to teach others; rather a sharing of knowledge, assisting others and mentoring in day-to-day activities.

DISCIPLINES: Instrument Technician, Electrical Technician

DURATION: 3 Days

LEARNING OBJECTIVES/CONTENT:

- Describe in detail safety theories and applications
- Propose technology that will help improve overall effectiveness
- Develop the ability to think critically and analytically about incidents that technicians may encounter
- Develop skills for problem solving, interpersonal, technical document creation and peer review/feedback
- Act as a mentor to less experienced oil and gas technicians
- Display ability to quantitatively evaluate technical impact on safety, business and productivity
- Develop the ability to identify and apply knowledge of current technology advancements to job responsibilities

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- Fletcher/Relyon Nutec Certificate of Completion

Types and Functions of Meters & Measurement Devices

COURSE DESCRIPTION: This course will provide oil and gas technicians with knowledge and skills in the recognition of the types and functions of meters & measurement devices in the oil and gas industry. This includes the applications and uses of meters & measurement devices, with an emphasis on safety operation and practices and descriptions and explanations of components safety features, functions and applications. The technician will undertake practical exercises in installing, testing and calibrating meters & measurement devices, including fault finding and fault rectification.

COMPETENCY LEVEL: Level 2-Application, discipline specific knowledge, 5-19 years' experience.

DISCIPLINES: Production and Control Room Technician, Instrument Technician, Electrical Technician

DURATION: 1 Day

LEARNING OBJECTIVES/CONTENT:

- Identify and describe characteristics of flow measurement
- Identify and describe characteristics of pressure measurement
- Identify and describe characteristics of temperature measurement
- Identify and describe characteristics of level measurement
- Describe the scale used for measuring pH
- Define conductivity and describe the method used to measure conductivity
- Define specific gravity and list two methods used for measuring specific gravity
- Define viscosity and list two methods used for measuring viscosity
- Describe the purpose of gas chromatography
- Describe the purpose of thermal conductivity gas analysis
- List two methods commonly used for measuring hydrocarbons

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- NCCER Credential
- Fletcher/Relyon Nutec Certificate of Completion

Case Study - Meters & Measurement

COURSE DESCRIPTION: This course will provide critical thinking, reasoning, leadership, and mentoring skills and attributes for oil and gas technicians interested in advancing their careers. The course will utilize technically related case studies and extensive group discussion to enhance the individual's capability to serve as a mentor and technical problem solver.

COMPETENCY LEVEL: Level 4-Participant would be nominated and have had sufficient working experience and demonstrated working skills prior to nomination. This includes individuals who have knowledge of and have demonstrated competence in their ability to coach others in the area of experience. The expectation is not for the individual to teach others; rather a sharing of knowledge, assisting others and mentoring in day-to-day activities.

DISCIPLINES: Production and Control Room Technician, Instrument Technician, Electrical Technician

DURATION: 3 Days

LEARNING OBJECTIVES/CONTENT:

- Describe in detail safety theories and applications
- Use advanced soft skills to help improved overall effectiveness
- Develop the ability to think critically and analytically about incidents that technicians may encounter
- Develop skills for problem solving, interpersonal, technical document creation and peer review/feedback
- Act as a mentor to less experienced oil and gas technicians
- Display ability to quantitatively evaluate technical impact on safety, business and productivity
- Develop the ability to identify and apply knowledge of current technology advancements to job responsibilities

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- Fletcher/Relyon Nutec Certificate of Completion

Functions and Components of Pipelines, Manifolds and Pigging Operations

COURSE DESCRIPTION: This course will provide oil and gas technicians with knowledge and skills in the operations of pipelines, manifolds and pigging operations in the oil and gas industry. This includes the functions, components and fundamental principles related to pipelines, manifolds, pig launchers and receivers with descriptions and explanations of component safety features, functions, and applications, with an emphasis on safety operation and practices. The technician will undertake practical exercises in fluids flow in pipeline, manifolds and pigging operations.

COMPETENCY LEVEL: Level 2-Application, discipline specific knowledge, 5-19 years' experience.

DISCIPLINES: Production and Control Room Technician, Instrument Technician, Mechanical Technician

DURATION: 1 Day

LEARNING OBJECTIVES/CONTENT:

- Identify engineering design of pipelines, routing, coating, components, power and control systems
- Explain typical operating of startup and shutdown of pipelines operations (Lab activities)
- Describe the Production Operator role in operation and maintenance of pigging operations (Lab activities)
- Demonstrate troubleshooting and explain emergency shutdown procedures for offshore/onshore pigging operations
- Identify elevation variables in pipeline operations
- Explain the 'Syphon' effect
- Demonstrate safety theories and applications for pipelines, manifolds and pigging operation
- Identify and describe the principles of SCADA-pipeline control
- Identify and describe the need for re-compression in pipelines
- Explain the equipment and control functions for a re-compression station

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- NCCER Credential
- Fletcher/Relyon Nutec Certificate of Completion

Types and Principles of Operation of Pumps

COURSE DESCRIPTION: This course will provide oil and gas technicians with knowledge and skills related to the types and principles of operation of pumps in the oil and gas industry. This includes descriptions and explanations of the construction and unique feature related to each type of pump, with an emphasis on safety operation and practices and pump safety features, functions, and applications. The technician will undertake practical exercises in pump applications and operation.

COMPETENCY LEVEL: Level 2-Application, discipline specific knowledge, 5-19 years' experience.

DISCIPLINES: Production and Control Room Technician, Instrument Technician, Mechanical Technician

DURATION: 1 Day

LEARNING OBJECTIVES/CONTENT:

- Identify pumps and their applications
- Identify pump efficiencies
- Explain the purpose of a pump curve and demonstrate its use
- Identify potential problems associated with pumps
- Describe abnormal operating conditions and corrections
- Identify typical faults and fault detection
- Explain safety and environmental hazards associated with pumps
- Explain Production Operator role in pump operation and maintenance
- Identify typical operating procedures associated with pumps and describe practical condition monitoring
- Describe pump emergency shutdown procedures

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- Fletcher /Relyon Nutec Certificate of Completion

Management and Maintenance of Pumping Systems

COURSE DESCRIPTION: This course will provide oil and gas technicians with knowledge and skills related to the management and maintenance of pumping systems in the oil/gas industry, with an emphasis on safety, design applications, efficiencies and effectiveness of pumping systems. The technician will investigate various predictive and preventative maintenance measures, utilize pumping system management and explore methodologies to improve failure minimization.

COMPETENCY LEVEL: Level 3-Mastery level, participants may be making key business decisions based on course learning's, ability to deliver held by a small number of experts, 10+ years' experience.

DISCIPLINES: Production and Control Room Technician, Mechanical Technician

DURATION: 2 Days

LEARNING OBJECTIVES/CONTENT:

- Explain current industry standards and regulations
- Demonstrate the ability to apply safety theories and applications (Lab activities)
- Describe pump characteristics, NPSH
- Discriminate pumps and their applications in oil/gas pumping systems
- Propose improvement methods for pumping system
- Present the requirements for a pump replacement/swap out

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- NCCER Credential
- Fletcher/ Relyon Nutec Certificate of Completion

Case Studies - Pumps in the Oil/Gas Industry

COURSE DESCRIPTION: This course will provide critical thinking, reasoning, leadership, and mentoring skills and attributes for oil and gas technicians interested in advancing their careers. The course will utilize technically related case studies and extensive group discussion to enhance the individual's capability to serve as a mentor and technical problem solver.

COMPETENCY LEVEL: Level 4-Participant would be nominated and have had sufficient working experience and shown working skills prior to nomination. This would be individuals who have knowledge and have demonstrated competence on being able to coach others in the area of experience. The expectation is not for the individual to teach others; rather they would share their knowledge, assist and mentor in day-to-day activities.

DISCIPLINES: Production and Control Room Technician, Mechanical Technician

DURATION: 3 Days

LEARNING OBJECTIVES/CONTENT:

- Describe in detail safety theories and applications
- Use advanced soft skills to help improved overall effectiveness
- Develop the ability to think critically and analytically about incidents that technicians may encounter
- Develop skills for problem solving, interpersonal, technical document creation and peer review/feedback
- Act as a mentor to less experienced oil and gas technicians
- Display ability to quantitatively evaluate technical impact on safety, business and productivity
- Develop the ability to identify and apply knowledge of current technology advancements to job responsibilities

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- Fletcher/Relyon Nutec Certificate of Completion

Principles and Use of Radar for Marine Technicians

COURSE DESCRIPTION: This course identifies the principles of radar and its use radar, including suitable mode and range setting for optimal performance. It provides an awareness of the limitations of the equipment in detecting targets and in terms of accuracy. The technician will be able to demonstrate the use of the Automatic Radar Plotting Aids (ARPA) function.

COMPETENCY LEVEL: Level 2-Application, discipline specific knowledge, 5-19 years' experience.

DISCIPLINES: Marine Technician

DURATION: 5 Days

LEARNING OBJECTIVES:

- Conduct radar overview
- Explain radar and the Law
- Explain radar theory and operation
- Describe radar set-up and operation
- Use radar for navigation/observation
- Demonstrate the ability to use radar collision avoidance and radar plotting
- Describe controlling target's relative motion
- Describe in detail safety theories and applications
- Use advanced soft skills to help improved overall effectiveness
- Develop the ability to think critically and analytically about incidents that technicians may encounter
- Develop skills for problem solving, interpersonal, technical document creation and peer review/feedback
- Act as a mentor to less experienced oil and gas technicians
- Display ability to quantitatively evaluate technical impact on safety, business and productivity
- Develop the ability to identify and apply knowledge of current technology advancements to job responsibilities

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- Fletcher/ Relyon Nutec Certificate of Completion
- US Coast Guard validation (US only)

Case Studies - Radar for Marine Technicians

COURSE DESCRIPTION: This course will provide critical thinking, reasoning, leadership, and mentoring skills and attributes for oil and gas technicians interested in advancing their careers. The course will utilize technically related case studies and extensive group discussion to enhance the individual's capability to serve as a mentor and technical problem solver. Additionally, this course identifies the principles of radar and its use radar, including suitable mode and range setting for optimal performance. It provides an awareness of the limitations of the equipment in detecting targets and in terms of accuracy.

COMPETENCY LEVEL: Level 4-Participant would be nominated and have had sufficient working experience and shown working skills prior to nomination. This would be individuals who have knowledge and have demonstrated competence on being able to coach others in the area of experience. The expectation is not for the individual to teach others; rather to share their knowledge, assistance and mentoring in day-to-day activities.

DISCIPLINES: Marine Technician

DURATION: 5 Days

LEARNING OBJECTIVES:

- Describe in detail safety theories and applications
- Use advanced soft skills to help improved overall effectiveness
- Develop the ability to think critically and analytically about incidents that technicians may encounter
- Develop skills for problem solving, interpersonal, technical document creation and peer review/feedback
- Act as a mentor to less experienced oil and gas technicians
- Display ability to quantitatively evaluate technical impact on safety, business and productivity
- Develop the ability to identify and apply knowledge of current technology advancements to job responsibilities

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- Fletcher/Relyon Nutec Certificate of Completion

Analyze and Recommend Changes to P&IDs

COURSE DESCRIPTION: This course will provide oil and gas technicians with the ability to analyze, synthesize and recommend changes to P&IDs. The course will also provide technicians with the ability to contribute to the management of a change to a process plant or system and to present a change to subject matter experts.

COMPETENCY LEVEL: Level 3-Mastery level, participants may be making key business decisions based on course learning's, ability to deliver held by a small number of experts, 10+ years' experience.

DISCIPLINES: Production and Control Room Technician, Instrument Technician, Mechanical Technician

DURATION: 2 Days

LEARNING OBJECTIVES/CONTENT:

- Identify process safety management principles and management of change procedures
- Apply principles to the process of management of change
- Identify Process Flow functions and conditions
- Evaluate various process operations and conditions
- Identify control loop and loop sheets
- Propose improvements to interlocks and permissive
- Propose improvements to control loop with an interlocks
- Evaluate electrical diagrams, schematics and Isometrics
- Demonstrate the ability to amend Block Flow Diagram (BFDs), Process Flow Diagrams (PFDs), Piping and Instrument Diagrams (P&IDs) and a Utility Flow Diagrams (UFDs) (Lab activities)
- Review and Revise unit elevation drawings
- Demonstrate the ability to review and Revise Plot Plan
- Use advanced soft skills to help improved overall effectiveness
- Demonstrate the ability to interpret and apply current industry standards and regulations

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- NCCER Credential
- Fletcher/Relyon Nutec Certificate of Completion

Components and Operations of Relief Systems

COURSE DESCRIPTION: This course will provide oil and gas technicians with knowledge of the terms, concepts and functions of relief systems. The course will also provide technicians with the ability to identify types, components, procedures and operational requirements of relief systems to ensure the safe operation of hydrocarbon facilities.

COMPETENCY LEVEL: Level-2 Application, discipline specific knowledge, 5-19 years' experience.

DISCIPLINES: Production and Control Room Technician, Instrument Technician, Mechanical Technician

DURATION: 1 Day

LEARNING OBJECTIVES/CONTENT:

- Identify and describe the elements of Process Safety Management with special references to:
 Mechanical Integrity
 Emergency Planning and Response
- Explain the components and designs of System Protection
- Identify and explain the application of alarms, interlocks, trips and set points
- Describe and use the function of cause and effect matrix
- Identify and describe the types and functions of Over Pressure Protection Devices
- List the function and operation of flare system: wet/dry, high Pressure (Cold)/ Low Pressure (Hot), and atmospheric
- Demonstrate the operation drainage systems
- Identify and describe the function and operation of Vessel/System blowdown
- Explain and demonstrate the principles of Emergency Shut-Down (ESD) systems and procedures
- Comply with liquid hydrocarbon management principles
- Describe and conduct Critical Function Testing (CFT) (Lab activities)

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- Fletcher/Relyon Nutec Certificate of Completion

Functions and Operation of Safety Instrumented Systems

COURSE DESCRIPTION: This course will provide oil and gas technicians with knowledge and skills related to functions and operation of safety instrumented systems in the oil and gas industry. This includes descriptions and explanations of the components in an instrumented safety system, including their functions, and applications. The technician will undertake practical exercises in constructing alarm and shutdown systems, fail-safe of valves and positioner, and interpretation of cause and effect matrices.

COMPETENCY LEVEL: Level 2-Application, discipline specific knowledge, 5-19 years' experience.

DISCIPLINES: Production and Control Room Technician, Instrument Technician

DURATION: 1 Day

LEARNING OBJECTIVES/CONTENT:

- Identify and describe 'Critical Process Systems'
- Identify and describe 'Safety Instrumented Systems (SIS)
- Identify and explain the International standards for a Safety Instrumented Systems
- List and describe the requirement specifications for a Safety Instrumented System
- Describe the relationship between hazard identification and a Safety Instrumented System
- Compare various Safety Instrumented Systems key elements and designs
- List and describe the equipment associated with a Safety Instrumented System

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- Fletcher/ Relyon Nutec Certificate of Completion

Case Studies - Safety Instrumented Systems

COURSE DESCRIPTION: This course will provide critical thinking, reasoning, leadership, and mentoring skills and attributes for oil and gas technicians interested in advancing their careers. The course will utilize technically related case studies and extensive group discussion to enhance the individual's capability to serve as a mentor and technical problem solver.

COMPETENCY LEVEL: Level 4-Participant would be nominated and have had sufficient working experience and shown working skills prior to nomination. This would be individuals who have knowledge and have demonstrated competence on being able to coach others in the area of experience. The expectation is not for the individual to teach others; rather they would share their knowledge, assist and mentor in day-to-day activities.

DISCIPLINES: Production and Control Room Technician, Instrument Technician

DURATION: 3 Days

LEARNING OBJECTIVES/CONTENT:

- Describe in detail safety theories and applications
- Use advanced soft skills to help improved overall effectiveness
- Develop the ability to think critically and analytically about incidents that technicians may encounter
- Develop skills for problem solving, interpersonal, technical document creation and peer review/feedback
- Act as a mentor to less experienced oil and gas technicians
- Display ability to quantitatively evaluate technical impact on safety, business and productivity
- Develop the ability to identify and apply knowledge of current technology advancements to job responsibilities

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- Fletcher/Relyon Nutec Certificate of Completion

Installation and Repair of Small Bore Tubing

COURSE DESCRIPTION: This course will provide oil and gas technicians with knowledge and skills related to installation and repair of small bore tubing in the oil and gas industry. This includes the methods for bending and joining small bore tubing. The technician will undertake practical exercises in making and installing small bore tubing.

COMPETENCY LEVEL: Level 2-Application, discipline specific knowledge, 5-19 years' experience.

DISCIPLINES: Production and Control Room Technician, Instrument Technician, Mechanical Technician, Electrical Technician

DURATION: 1 Day

LEARNING OBJECTIVES/CONTENT:

- Identify different types and sizes of tubing
- Describe safety and environmental hazards associated with small bore tubing operation (chlorine vs s/s tubing)
- Explain typical operating procedures associated with different type tubing
- Conduct operator cutting and bending (design) small bore tubing
- Describe the responsibilities regarding the selection, maintenance, and repair of small bore tubing

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- NCCER Credential
- Fletcher/ Relyon Nutec Certificate of Completion

Case Study - Small Bore Tubing

COURSE DESCRIPTION: This course will provide critical thinking, reasoning, leadership, and mentoring skills and attributes for oil and gas technicians interested in advancing their careers. The course will utilize technically related case studies and extensive group discussion to enhance the individual's capability to serve as a mentor and technical problem solver.

COMPETENCY LEVEL: Level 4-Participant would be nominated and have had sufficient working experience and demonstrated working skills prior to nomination. This includes individuals who have knowledge of and have demonstrated competence in their ability to coach others in the area of experience. The expectation is not for the individual to teach others; rather a sharing of knowledge, assisting others and mentoring in day-to-day activities.

DISCIPLINES: Production and Control Room Technician, Instrument Technician, Mechanical Technician, Electrical Technician

DURATION: 3 Days

LEARNING OBJECTIVES/CONTENT:

- Describe in detail safety theories and applications
- Use advanced soft skills to help improved overall effectiveness
- Develop the ability to think critically and analytically about incidents that technicians may encounter
- Develop skills for problem solving, interpersonal, technical document creation and peer review/feedback
- Act as a mentor to less experienced oil and gas technicians
- Display ability to quantitatively evaluate technical impact on safety, business and productivity
- Develop the ability to identify and apply knowledge of current technology advancements to job responsibilities

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- Fletcher/Relyon Nutec Certificate of Completion

Types and Principles of Operation of Valves

COURSE DESCRIPTION: This course will provide oil and gas technicians with knowledge and skills related to the types and principles of operation of valves in the oil and gas industry. This includes the fundamentals of hand, automatic and self-actuating valves, with an emphasis on safety operation and practices as well as descriptions and explanations of components safety features, functions, and applications. The technician will undertake practical exercises in valve applications and operation.

COMPETENCY LEVEL: Level 2-Application, discipline specific knowledge, 5-19 years' experience.

DISCIPLINES: Production and Control Room Technician, Instrument Technician, Mechanical Technician

DURATION: 1 Day

LEARNING OBJECTIVES/CONTENT:

- Identify different components of common valves (Lab activities)
- Describe safety and Environmental hazards associated with valves operation
- Explain typical operating procedures associated with different type and sizes of valve (lab activities)
- Explain Production Operator role in valve operation and maintenance (Lab activities)
- Describe the purpose of control valves in the industry (Animations)
- Identify the major components of control valves
- Describe the operating principles of control valves pneumatic (air), electronic, and hydraulic

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- NCCER Credential
- Fletcher/ Relyon Nutec Certificate of Completion

Valve Maintenance and Management

COURSE DESCRIPTION: This course will provide oil and gas technicians with knowledge and skills related to the management and maintenance of valves in the oil/gas industry, with an emphasis on safety, design applications, efficiencies and effectiveness of valve applications. The technician will investigate various predictive and preventative maintenance measures utilized in valve management and explore methodologies to improve failure minimization.

COMPETENCY LEVEL: Level 3-Mastery level, participants may be making key business decisions based on course learning's, ability to deliver held by a small number of experts, 10+ years' experience.

DISCIPLINES: Production and Control Room Technician, Mechanical Technician

DURATION: 2 Days

LEARNING OBJECTIVES/CONTENT:

- Identify the valve construction material
- Describe valve characteristics with regards to design arrangements and components
- Differentiate valve and their application
- Valve Management, Preventive and Predictive Maintenance
- Demonstrate the ability to Valve Troubleshooting
- Perform operation in Gate and Globe Valve
- Identify the Operator Responsibilities

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- NCCER Credential
- Fletcher/ Relyon Nutec Certificate of Completion

Case Studies - Valves in the Oil/Gas Industry

COURSE DESCRIPTION: This course will provide critical thinking, reasoning, leadership, and mentoring skills and attributes for oil and gas technicians interested in advancing their careers. The course will utilize technically related case studies and extensive group discussion to enhance the individual's capability to serve as a mentor and technical problem solver.

COMPETENCY LEVEL: Level 4-Participant would be nominated and have had sufficient working experience and demonstrated working skills prior to nomination. This includes individuals who have knowledge of and have demonstrated competence in their ability to coach others in the area of experience. The expectation is not for the individual to teach others; rather a sharing of knowledge, assisting others and mentoring in day-to-day activities.

DISCIPLINES: Production and Control Room Technician, Mechanical Technician

DURATION: 3 Days

LEARNING OBJECTIVES/CONTENT:

- Describe in detail safety theories and applications
- Use advanced soft skills to help improved overall effectiveness
- Develop the ability to think critically and analytically about incidents that technicians may encounter
- Develop skills for problem solving, interpersonal, technical document creation and peer review/feedback
- Act as a mentor to less experienced oil and gas technicians
- Display ability to quantitatively evaluate technical impact on safety, business and productivity
- Develop the ability to identify and apply knowledge of current technology advancements to job responsibilities

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- Fletcher/Relyon Nutec Certificate of Completion

Principles of Operation of Variable Speed Drives in the Oil/Gas Industry

COURSE DESCRIPTION: This course will provide oil and gas technicians with knowledge and skills related to the principles of operation of variable speed drives in the oil and gas industry. This includes the fundamentals of DC Motor drives, Eddy Current Drives, AC Motor drives and hydraulic drives, with an emphasis on safety operation and practices as well as descriptions and explanations of components safety features, functions, and applications. The technician will undertake practical exercises in variable speed drives, applications and operation.

COMPETENCY LEVEL: Level 2-Application, discipline specific knowledge, 5-19 years' experience.

DISCIPLINES: Production and Control Room Technician, Instrument Technician, Mechanical Technician, Electrical Technician

DURATION: 1 Day

LEARNING OBJECTIVES/CONTENT:

- Understand applications for variable speed drives
- Identify types of drivers
- Understand variable speed electric motors/devices
- Identify belt drive types
- Install a belt drive
- Identify chain drive types
- Install a chain drive
- Describe protection systems
- Describe safety procedures for variable speed drives

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- NCCER Credential
- Fletcher/ Relyon Nutec Certificate of Completion

Case Studies - Variable Speed Drives

COURSE DESCRIPTION: This course will provide critical thinking, reasoning, leadership, and mentoring skills and attributes for oil and gas technicians interested in advancing their careers. The course will utilize technically related case studies and extensive group discussion to enhance the individual's capability to serve as a mentor and technical problem solver.

COMPETENCY LEVEL: Level 4-Participant would be nominated and have had sufficient working experience and demonstrated working skills prior to nomination. This includes individuals who have knowledge of and have demonstrated competence in their ability to coach others in the area of experience. The expectation is not for the individual to teach others; rather a sharing of knowledge, assisting others and mentoring in day-to-day activities.

DISCIPLINES: Production and Control Room Technician, Instrument Technician, Mechanical Technician, Electrical Technician

DURATION: 3 Days

LEARNING OBJECTIVES/CONTENT:

- Describe in detail safety theories and applications
- Use advanced soft skills to help improved overall effectiveness
- Develop the ability to think critically and analytically about incidents that technicians may encounter
- Develop skills for problem solving, interpersonal, technical document creation and peer review/feedback
- Act as a mentor to less experienced oil and gas technicians
- Display ability to quantitatively evaluate technical impact on safety, business and productivity
- Develop the ability to identify and apply knowledge of current technology advancements to job responsibilities

CREDENTIAL EARNED UPON SATISFACTORY COMPLETION:

- Fletcher/Relyon Nutec Certificate of Completion