







### Overview

The course Product Movements is designed to provide operating personnel with advanced technical skills and knowledge in all aspects of cargo handling operations. The program covers a range of topics such as; how to conduct Pipeline Line Up's for specific operations, Gauging Tanks prior to and after Tank operations, Pipeline preparations prior to any transfer of product this includes depressurisation and packing of pipelines where required, Transferring product between Liquid Bulk Terminals, Tank to Tank transfers and Circulation of Product within a terminal, Pigging Operations, Tank Dewatering Operations., staff training and professional development, quality assurance, risk management, and environmental impacts.

This course is essential for those working in the oil and gas terminal industry, as it equips participants with the knowledge and skills to ensure safe, efficient, and compliant cargo handling operations. The course also emphasizes on safety, as safety is key for a successful cargo handling and loading operations and the course will provide participants with the knowledge and tools to prevent and manage safety incidents and emergencies.

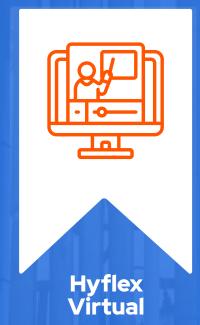






# 3 Ways to Deliver **Choose your learning path**







**Learning Delivery Solutions** 

All our online courses are available in multiple languages and have subtitle options

# 3 Ways to Deliver





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#### Online

Our online model consists of online, pre-recorded videos that are made to be self-paced and interactive with features like,

- → Pop-up quizzes
- → Online assessments and exam with Certification
- → Student forums
- → Creation of online notes
- → Student and teacher dashboard

# **Hyflex Virtual**

This is an e-learning model that consists of,

- → All features of the online solution
- → Live virtual Face-to-Face interaction, support and coaching
- ightarrow Trainer support through meeting collaboration platforms
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## **Hyflex Classroom**

Hyflex Classroom is a one-of-a-kind, unique solution that makes use of various digital technologies to stream the face-to-face classes. It provides,

- ightharpoonup All features of the Online and Hyflex Virtual solutions
- → In person, face-to-face lectures and classes
- → Simultaneous online streaming of the classes held
- → Live Q & A sessions
- → In-class Online Exam with certification



All our course content can be customized and designed with your company brand.

# **Features**







# **Digital Learning**

Our courses are delivered through a digital learning platform that is completely virtual but also has features that derived from the traditional classroom like making notes, giving exams, and completing assessments. Our digital solution makes it easy to follow, track and is accessible from anywhere around the world.



# **API Integration**

Bringing digital learning to you had to be unique especially in today's day and age where technology is rapidly advancing. Our course delivery solutions are integrated with apps like Kapwing, Youtube Studio, MS Teams, Trello Management, OOTBOX.app Producer, OBS, Reaper and Voicemeeter



## **Multi-Lingual Platform**

At Tankskills, inclusion is very important to us! We want to welcome people from all over the world and from different walks of life. No matter what language you speak or would like to learn in, we seek to cater to that. We offer a variety of multiple languages along with subtitle options for our users too.



#### **Online Portal for Assessments**

While engaged in our online and hyflex courses, the users can complete their assignments, quizzes and exams online. This is inline with our remote friendly course delivery options as we believe in making education accessible to all.



#### Status Reports

Our users are also able to generate status reports from their dashboards in order to get an overview on the courses they are engaged in. This helps to track progress in a more organized and systematic way. This option is available to both, students and training producers.



#### **Student Forums**

All our students will have access to a student community board where they can ask questions and answer other student's queries as well. They will have access to the forums, chats that are not only existing but also past forums that are related to the course they are enrolled in.



#### F2F Virtual Trainer Support

Our hyflex classroom students can now avail support from our trainers regarding their course or a topic. This is done via email or a Microsoft Teams meeting and 1 assistant course instructor onsite as well.



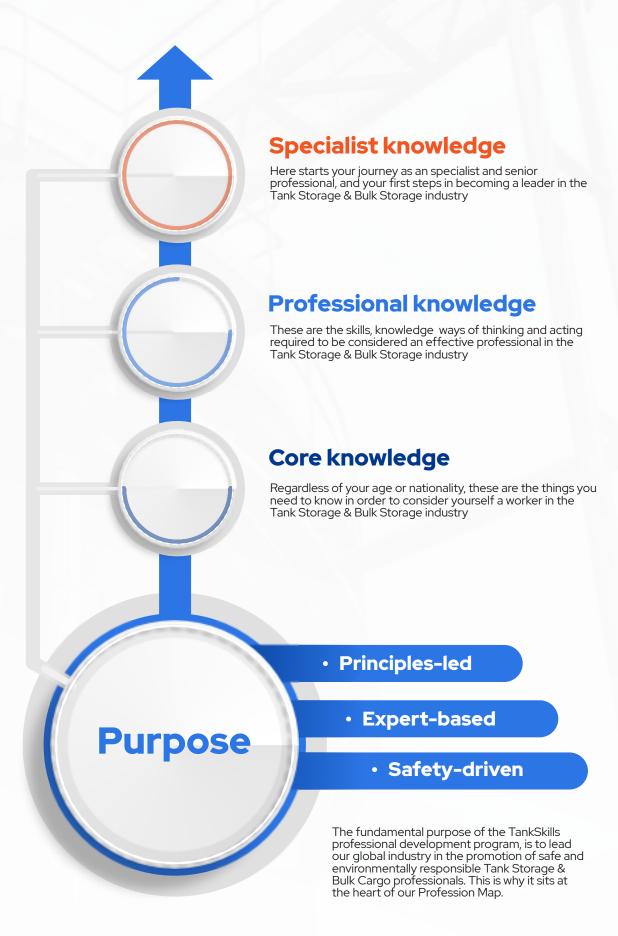
## **Competency Framework**

All our course content follows international guidelines and standards like the OCIMF and are validated through Subject Matter Experts before being approved to be a part of a course. We want to ensure the best practices among our users and make it available even in the most remote of locations.

# **TankSkills Profession Map**







# **Course Outline**

#### **Product Movements**

#### Module 1: Introduction to Product Movements

- Overview of the various Transfer of Product operations conducted within a Liquid Bulk Storage Terminals and FOTT. (Understanding)
- Types of cargo and their handling requirements (Understanding)
- What is a Product Safety Data Sheet (SDS) and what information does it contain (Active)
- Importance of proper Transfer of Product, Safety Protocol, Procedures and Techniques (Active)
- What is a Supervisory Control And Data Acquisition Data system (SCADA), how and what is it used for (Active)
- International safety regulations and guidelines for cargo handling and loading operations (Understanding)
- Methodology for Leak Testing Pipelines and why this done (Active)

## Module 2: Conducting Pipeline Line Up's for specific operations

- Importance of establishing Clear and Concise Communications between all concerned parties involved in the proposed Transfer of Product. (Active)
- All parties to confirm and agree the Pipeline Line Up required with written instructions for the Transfer of Product Request. (Active)
- Importance of Walking the entire length of the pipeline to be used for the Transfer of Product and ensure valves are in the correct position, all drain lines and vents are closed (Active)
- Emphasise the importance of conducting LMRA prior to commencing an operation (Active)
- The role of the Central Control Room (CCR) operator (Active)
- Final confirmation with all parties involved in the Transfer of Product prior to commencing and operation. (Active)

## Module 3: Pipeline Depressurisation and Line Packing Operations

- Importance of establishing Clear and Concise Communications between all concerned parties to be involved in the proposed Transfer of Product. (Active)
- Why is it importance to conduct Pipeline Depressurisation and Packing Pipelines Prior to commencing a Transfer of Product operation (Active)
- Overview of Line Packing Procedures and techniques (Active)
- Highlight Safety Concerns and PPE required when conducting Pipeline Depressurisation and Line Packing operations (Active)
- Importance of conducting LMRA prior to commencing operations (Active)

## Module 4: Gauging Tanks prior to Transfer of Product operations

- Importance of Gauging Tanks prior to commencing and completion of a Transfer of Product (Understanding)
- Methods used for Gauging Tanks (Understanding)
- Safety Precautions and Specific PPE required when Manually Gauging Tanks (Active)
- Establishing Clear and Concise Communications with the CCR prior to Manually Gauging Tanks (Active)
- Relaxation Times for all flammable products. Why a minimum relaxation time of 30 minutes shall apply before any tank sampling or manual tank gauging takes place. Why no devices shall be introduced or withdrawn from the tank until relaxation time has elapsed. (Active)



# **Course Outline**

#### **Product Movements**

## Module 5: Pigging Operations

- Pigging Pipelines is one of the most common operations carried within Liquid Bulk Storage Terminals and FOTT however, if procedures and protocols are not correctly followed the consequence of personnel injury and infrastructure damage is high.
- Why is it necessary to pig pipelines (Understanding)
- Overview of procedures to be followed for all Pigging Operation (Active)
- Highlight potential consequences for not following procedures (Active)
- Precautions to be taken when pigging to a tank (Active)
- Types of pigs used in the oil industry (designs, materials etc.) (Understanding)
- What is Intelligent Pigging (Understanding)
- Safety precautions to be followed when inserting or retrieving pigs (Active)

#### Module 6: Code of Ethics and Environmental Impact (Understanding)

- Adaptation of code of ethics in Product Transfer operations
- Effects of Product Transfer Loading and Discharge operations on marine life and the environment
- Best practices for minimizing environmental impact in Product Transfer Loading and Discharge operations
- · Compliance with environmental regulations and guidelines

# Module 7: Safety (Active)

- Proper knowledge of safety guidelines and safety protocols including international norms and security procedures
- Explain Equipment Isolation Hierarchy and its importance.
- Understanding of the safety hazards related to Product Transfer operations
- Techniques for preventing and managing safety incidents and emergencies in Product Transfer operations
- Compliance with safety regulations and best practices
- Safety Auditing and Inspection

## Module 8: Metering, Quality Assurance, and Calculations

- Overview of metering parameters and their importance in cargo handling and loading operations (Understanding)
- Quality assurance procedures for Product Transfer operations (Active)
- Calculations and measurements used in Product Transfer operations (Active)
- Importance of accuracy and precision in Product Transfer operations (Active)
- Sampling. Explain the importance of sampling products, why it is done and the
  different methods for obtaining a sample (closed sampling methods used
  due to the toxicity or flammability of the cargo etc.) (Understanding)
- The importance of sealing, correctly labeling, retaining and recording Samples taken (Active)

#### Module 9: Staff Training and Professional Development (Understanding)

- Ability to train staff and professionals in the field of Product Transfer and Handling operations
- Importance of continuing education and professional development in product Transfer operations
- Techniques for effectively training and educating staff and professionals in Product Transfer operations
- Building a safety culture within the organization







# **Benefits**

- 1. Identify and explain the different types of cargo and their specific handling requirements.
- 2. Understand the key concepts and principles of cargo handling through the various operations carried out within a Liquid Bulk Storage Terminal.
- 3. Analyse and evaluate the risks associated with cargo handling and develop strategies for mitigating them.
- 4. Apply their knowledge of cargo handling operations to real-world scenarios.
- 5. Evaluate the effectiveness of their training program through assessments and feedback mechanisms.

# Attendees:

Our courses are specially crafted to assist those working in the industries of

- Tank Storage Terminals, Refineries, FPSO's, Offshore Marine Terminals, STS POAC & Superintendence
- Health Safety & Environment, LNG Operations of Tankers and Terminals, Oil & Gas Logistics
- Airport Fueling, Traders, Tanker Operators, Shipping Agents, Cargo Inspection, Loss Control
- Marine Expediting, Biofuel Storage, Claims Departments, Port Authorities, Customs, Security Personnel
- Tank Farm operators, Loading Masters and Terminal Management











contact@tankskills.com tankskills.com