John M. Campbell & Co.

Exclusive provider of PetroSkills facilities training.

Who Should Attend?

Technical professionals new to the pipeline business or needing a broad understanding of the pipeline business including: pipeline project managers, pipeline engineers, senior operations managers, facilities engineers, pipeline design and construction engineers, engineering and construction contractors.

The Participant Will Learn:

- ❑ How to apply mechanical and physical principles to all phases of pipeline design, construction, and operation
- ❑ To identify similarities and differences of onshore and offshore pipeline systems
- ❑ To incorporate operations, construction methods, commissioning, pressure testing, and start-up into the design of a pipeline system
- ❑ To apply safety and environmental regulations for a sound design
- ❑ Common sense methods and technical requirements to define pipeline routes and facilities locations
- ❑ The importance of fluid properties and process to pipeline systems design and construction
- ❑ To apply classroom training on a real world project exercise

All classes available at your location. Contact us today.

www.jmcampbell.com | 1.405.321.1383

Fundamentals of Onshore and Offshore Pipeline Systems (PL-4)

Course Outline

Daily schedule is approximate.

DAY 1	CONCEPTS • Introduction • Course overview • Introduction to pipeline system • Lifecycle management • Onshore and offshore applications • Introduction to key pipeline equipment • Project Exercise	DAY 6	CONCEPTS • Special Design Considerations - Onshore i. Water and Infrastructure Crossings ii. Electrical Interference iii. Environmental Issues and Management iv. Geologic and Seismic Hazards • Special Design Considerations - Offshore i. Risers - Platform and Floating Structures ii. Shore Approaches iii. Environmental Issues and Management
DAY 2	CONCEPTS • Surveys and Mapping • Route Assessment and Selection • Safety, Regulatory, Environmental, and Land Use considerations • Pressure/Strength Analyses • Thermal and Pressure Loadings • Environmental Effects • Installation Loads and Stresses • Project Exercise	DAY 7	CONCEPTS • Onshore Pipeline Construction Methods • Construction examples • Contractual Considerations • Welding, Testing and Inspection of Welds • Pre-commissioning, Commissioning, and Start-up • Extreme location considerations • Safety • Codes and Standards Considerations • Environmental Management • Project Exercise
DAY 3	CONCEPTS • Stability – Offshore and Onshore • Water and Infrastructure Crossings Design • Fluid Dynamics and Properties • Energy and Continuity Relationships • Single-Phase Gas and Liquid Transport • Project Exercise	DAY 8	CONCEPTS • Offshore pipeline construction • Installation Methods • Trenching considerations • Riser installations • Hyperbaric welding • Special offshore construction considerations • Safety • Environmental management • Cost estimates • Project Exercise
DAY 4	CONCEPTS • Station configuration and sparing • Multiphase Flow Analysis • Multiphase Design and Operational Aspects • Slugging – Reasons and responses • Line Pipe – Materials, Specifications, and Limitations • Pumps, compressors and drive selection • Metering • Storage • Valve • Project Exercise	DAY 9	CONCEPTS • Operational Considerations • Operations – Business Focus • Integrity and Reliability • Maintenance and Inspections • Leaks Detection and Response • Scraper Operations • Project Presentations
DAY 5	CONCEPTS • Coatings and Cathodic Protection • Key Electrical Systems • Hazard Areas Applications • SCADA/Communications • System Schematic – Definition and Uses • Project Exercise	DAY 10	CONCEPTS • Course Objectives Review • Key Learning Points Summary • Assessment • Final Question and Answer Session