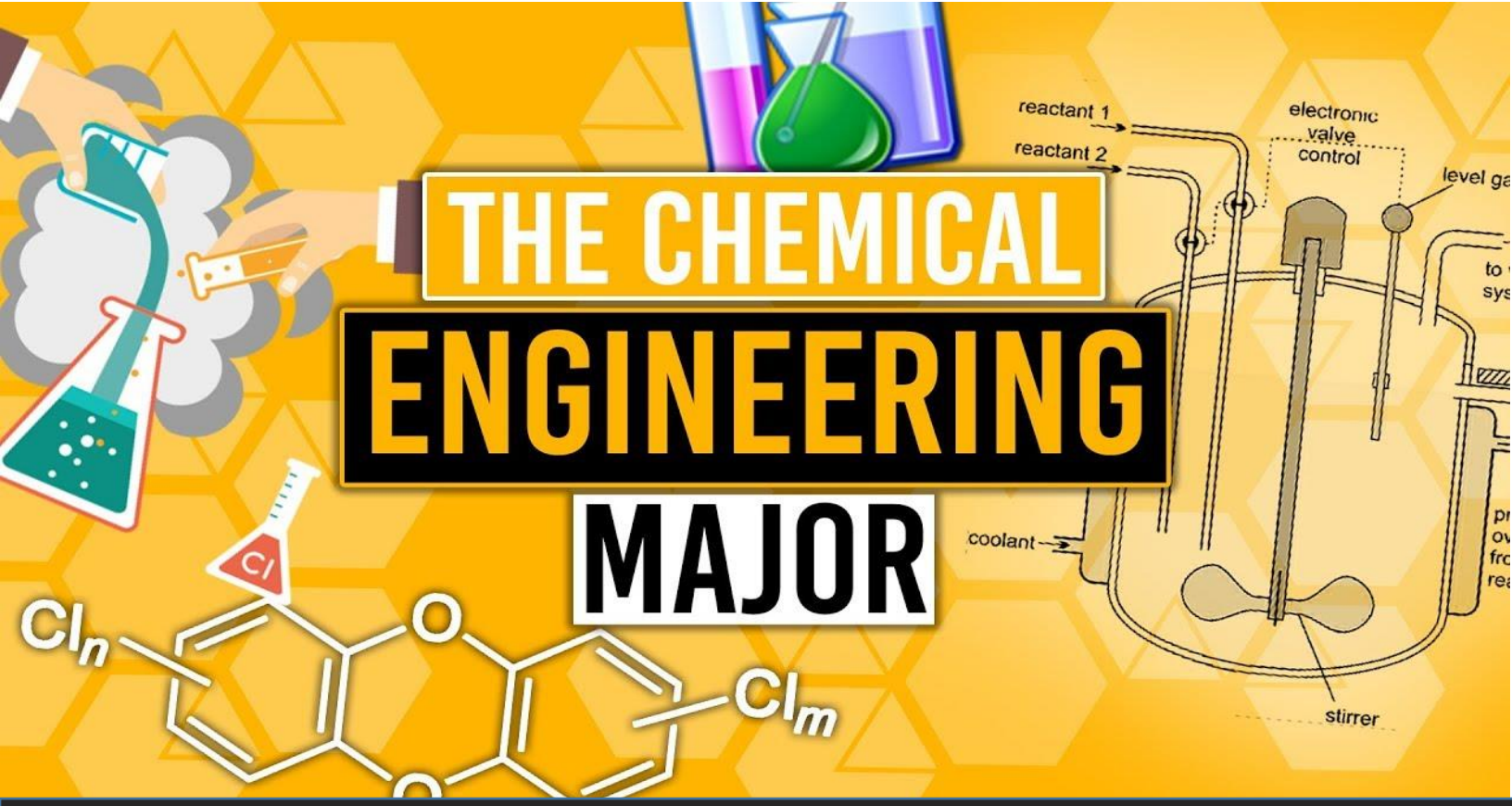

Gas Sweetening & Claus Reaction Technology

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BTS
Training & Consultancy

Gas Sweetening & Claus Reaction Technology

Who Should Attend?

All those working in the petrochemical, oil and gas process industries with a need to understand the complete gas sweetening sulphur recovery and natural gas production. These will include geoscientists, petroleum engineers, production engineers, trainee process engineers, plant operators and economists.

Methodology:

This interactive Training will be highly interactive, with opportunities to advance your opinions and ideas and will include;

- Lectures
- Workshop & Work Presentation
- Case Studies and Practical Exercise
- Videos and General Discussions

Certificate:

BTS attendance certificate will be issued to all attendees completing minimum of 80% of the total course duration.

Objectives:

- The aims of the course are to give an understanding to the technology of gas processing. General concepts are introduced which enable all participants to have a basic comprehension of the needs and requirements of gas sweetening systems, sulphur recovery processes and natural gas production, purification, transportation and re-gasification

Contents:

Gas Sweetening

- General Considerations
- Types of Contaminants
- Process Selection and Classification
- Chemical Reaction Processes
- Chemistry
- Process Flow
- General Design Criteria
- Design Guidelines
- Amine Processes
- Process Flow Differences
- Common Amine Solutions
- Physical Solvent Processes

Combination (Chemical and Physical) Processes

- Alkaline Salt Processes Chemistry
- Batch Processes
- Iron Sponge
- Chem Sweet
- Sulpha-Check
- Sulpha-Treat
- Zinc Oxide – PURESPEC
- Molecular Sieve
- Iron Chelate processes
- LO-CAT Process
- SulFerox Process
- Membrane Separation
- Liquid Hydrocarbon Treating
- Caustic Wash
- Operating Problems
- Selective Sweetening Systems
- New Technology Developments
- Materials for Sour Gas Service
- Review: Computer Simulation Programs
- Example Calculations and Problems

Sulphur Recovery

- Claus Process Considerations and Modifications
    - Reaction Furnace,
    - Waste Heat Recovery
    - Catalytic Converters

    - Sulphur Condensers
    - Reheat Methods
    - Process Control
    - Tail Gas Handling
- Incineration
- Clean-up
    - Continuation Process
    - SO2 Recovery Process
    - H2S Recovery Process
    - Direct Oxidation Process
    - Liquid Redox
- The EUROCLAUS Concept
- S ZORB Sulphur Removal Technology
- Sulphur Storage and Handling
    - Sulphur Properties
    - Sulphur Degassing
    - Sulphur Plant Testing and Optimization
- Claus Plant Start-up and Shutdown Procedures
- Claus Process Calculations and Problems
- Review: Computer Simulation Programs
- Safety in Gas Sweetening and Sulphur Recovery Operations

Natural Gas

- Origins and History Of Natural Gas
- The Nature of Natural Gas
- Exploration Principles
- Drilling Production and Processing
- Natural Gas Treatment and Sulphur Recovery

- Natural Gas Conditioning and Processing
    - Dehydration
    - Sour Gas Treatment
    - Hydrate Control
    - Stabilization
- Natural Gas Transmission
- Natural Gas Storage and Distribution
- Natural Gas Use
- Future Supply and Demand for Natural Gas
- Case Studies, Exercises & Group Discussions