



**Petroleum, Oil & Gas**



**SCANDINAVIAN ACADEMY**  
Training and Development

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# Course: Production Planning & Scheduling Petroleum Refineries

| Code | City                | hotel              | Start      | End        | price  | Hours |
|------|---------------------|--------------------|------------|------------|--------|-------|
| 575  | Cyprus<br>(Larnaka) | Hotel Meeting Room | 2024-07-29 | 2024-08-02 | 5950 € | 25    |

## Introduction

This programme is specifically designed to identify and resolve issues of production planning and scheduling in petroleum refineries that are most commonly encountered by refinery personnel working in this area. Issues of operations scheduling for petroleum refining are discussed in depth. It will also be enhanced with planning and scheduling examples and will provide relevant background information of the subject.

## Seminar Objectives

- Gain an appreciation of modern planning and scheduling tools that will be useful for planning of crude and product deliveries in their facilities
- Assist in improved operations, optimization, upgrading and modification of existing facilities
- Will result in improved profitability and help in continuous modernization of facilities
- Develop the skills necessary to apply risk assessment techniques

## Training Methodology

Throughout the programme active participation is encouraged and includes open discussions, questionnaires and team exercises of actual examples.

## Who Should Attend?

Process engineers and technologists engaged in planning and scheduling activities who have a minimum of experience and who are required to understand and discuss issues related to their industry

## Programme Outline

### Day 1 - Application of Planning and Scheduling

- Overview of planning and scheduling in oil refineries
- Refinery Configuration:



- Hydro skimming Refinery
- Refineries with Secondary Conversion Process
- Integrated Refineries
- Existing & New Refineries
- Choice of Crude
- Crude oil scheduling
- Choice of Processes
- Capacity utilization of Crudes
- Severity of Process Operations
- Cut-points Optimization
- Facing Upset Situations
- Tankage Requirement

#### **Day 2 - Improving Product Movements and Releasing Tankages**

- Basic Information Required
- Crude Assay
- Intermediate Feed Characteristics
- Yields and Properties
- Different Process Units
- Utilities

#### **Day 3 - Product Blending Rules**

- Product Specifications
- New Trends in fuel production
- Environmental Issues
- Crude Cost
- Product Netback

#### **Day 4 - Formulation of Problem**

- Refinery Flow-sheets
- Simplified Material Balance
- General Formulation
- Demand Equations
- Product Inventory Control
- Product Quality Control
- Fixed Composition Blend
- Capacity Control/ Constraints
- Availability of Feedstock/ Control



### **Day 5 - Application to a Refinery Worksheet**

- Petroleum Product Movement and Product Exchange
- Marginal Depot Supply and movements
- Commonly Used Methods & Recent Developments
- Mathematical Approach to Solution
- Linear Programming
- Graphic Method
- Vendors Software
- Discussion and Summary



**The Scandinavian Academy employs modern methods in training and skills development, enhancing the efficiency of human resource development. We follow these practices:**

- **Theoretical Lectures:**
  - We deliver knowledge through advanced presentations such as PowerPoint and visual materials, including videos and short films.
- **Scientific Assessment:**
  - We evaluate trainees skills before and after the course to ensure their progress.
- **Brainstorming and Interaction:**
  - We encourage active participation through brainstorming sessions and applying concepts through role play.
- **Practical Cases:**
  - We provide practical cases that align with the scientific content and the participants specific needs.
- **Examinations:**
  - Tests are conducted at the end of the program to assess knowledge retention.
- **Educational Materials:**
  - We provide both printed and digital scientific and practical materials to participants.
- **Attendance and Final Result Reports:**
  - We prepare detailed attendance reports for participants and offer a comprehensive program evaluation.
- **Professionals and Experts:**
  - The programs scientific content is prepared by the best professors and trainers in various fields.
- **Professional Completion Certificate:**
  - Participants receive a professional completion certificate issued by the Scandinavian Academy for Training and Development in the Kingdom of Sweden, with the option for international authentication.
- **Program Timings:**
  - Training programs are held from 10:00 AM to 2:00 PM and include buffet sessions for light meals during lectures.