



SCANDINAVIAN ACADEMY
For Training and Development

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Course: Storm Water Drainage Study and Design

Code	City	Hotel	Start	End	Price	Language - Hours
573	Beirut (Lebanon)	Hotel Meeting Room	2025-07-13	2025-07-17	2550 €	En - 25

Objectives

- Understand storm water drainage importance in society
- Determine storm water Drainage systems requirements for a given community
- Understand procedures for analysis and design of storm water drainage systems

Daily Outline

Day One: Introduction, General information and Hydrology

Fundamental Hydrology for Sewer Design

- Factors affecting Floods
- Design frequency criteria
- Drainage Basins
- Storm water flow

Runoff computation methods (Rational Formula, Hydrograph Methods and others...)

Day Two: Storm Drainage Systems

- Storm Water Drainage Systems Components



- Pavement Drainage
- Gutter Flow
- Storm Water Inlets
- Storm Drains

Day Three: Hydraulics of Sewers

- Fundamental Hydraulic for Sewer Design
- Manning's Formula
- Solution of Manning's equation for circular pipes
- Design of Sewer Systems
- Preliminary Design
- Detailed Design
- iii. Principles of Design
- Providing Quality and
- Professional Training Since 1984

Day Four: Design Procedures and Preliminary Design

- Storm Water Drainage Sewers
- Culverts
- Ponds
- Drainage Well

Day Five: Practical problems

- Open Discussions



The Scandinavian Academy for Training and Development 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 coffee break sessions during lectures.