





Course: Storm Water Drainage Study and Design

Code	City	Hotel	Start	End	Price	Language - Hours
573	Barcelona (Spain)	Hotel Meeting Room	2025-11-17	2025-11-21	5450 €	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:

 $\circ\,$ 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:

- $\circ\,$ We provide practical cases that align with the scientific content and the participants specific needs.
- Examinations:
 - $\circ\,$ Tests are conducted at the end of the program to assess knowledge retention.
- Educational Materials:
 - $\circ\,$ We provide both printed and digital scientific and practical materials to participants.
- Attendance and Final Result Reports:
 - $\circ\,$ We prepare detailed attendance reports for participants and offer a comprehensive program evaluation.
- Professionals and Experts:
 - $\circ\,$ The programs scientific content is prepared by the best professors and trainers in various fields.
- Professional Completion Certificate:
 - $\circ~$ 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.