



**Construction, Civil Engineering  
& Asset Management**



**SCANDINAVIAN ACADEMY**  
Training and Development

Mobile | 0046700414979 : Mobile | 0046114759991 : Phone : 0046700414959

Email | [info.en@scandinavianacademy.net](mailto:info.en@scandinavianacademy.net) Web site: <https://scandinavianacademy.net/en> :

Sweden - Norrköping - Timmermansgatan100 | P.O.BOX : 60359



# Course: Storm Water Drainage Study and Design

Code	City	hotel	Start	End	price	Hours
573	Florence (Italy)	Hotel Meeting Room	2024-07-29	2024-08-02	5450 €	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 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.