

Advanced Analysis Of STAAD Pro 2005 Training

Description

Course Description

This course provides a precise look over STAAD Pro 2005 Design of sections (both concrete design and steel design). It demonstrates the steps to be followed to produce structural analysis and design of any type of buildings under any loading conditions.

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At the completion of this course, the trainee will be able to:

- Understand the basic concept of different design codes.
- Understand how the multipurpose finite element programs conduct the structural analysis.
- Understand STAAD Pro element library
- Understand STAAD Pro way of pre processing some special structures.
- Defining the special Load Systems such as wind, earthquake, dynamic and hydraulic.
- Analyzing your Model using the appropriate Analysis method.
- Check the safety of the proposed steel sections to be used in both plane and space frames.
- Design the required steel sections to be used in both plane and space frames.
- Check the safety of the proposed reinforced concrete sections to be used in both plane and space frames.
- Design the required reinforced concrete sections
- to be used in both plane and space frames.

Course Objective

- This short course is intended to overview the structural analysis and design of both steel structures and reinforced concrete structures by STAAD Pro 2005. The course may be attended by civil engineers involved in design who completed the first and second courses. Each participant may draw on the elements of the course that most complement his area of interest and practice.
- For those engineers with limited analysis experience, the course will provide ample illustration of real structures that may assist the designer to understand STAAD Pro and apply it on different

types of buildings.
- The wide range of issues to be discussed, revolve around the use of STAAD Pro in structural Analysis and design of both steel and reinforced concrete structures. The examples to be used would vary from simple to complicated structures from both steel and concrete structures. Throughout the course, the instructor shall start to review the first and second courses to allow ensuring the full participation and comprehension of all attendants, bearing in mind variations in background from education to practice.

Who Should attend?

Any civil engineer with interest in learning about structural design and completed the first and second courses may attend the course and benefit from it. As backgrounds may vary the instructor shall review the contents of the first and second courses. It is foreseen that individuals from the following backgrounds may attend:

- Design structural engineer
- Planners
- Steel fabricator
- Construction engineers

Course Outline

Day One :

Introduction

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- Review of the materials discussed in the first course and second course.
- Presentation of some traditional examples to be analyzed.
- Presentation of some traditional loads.
- Presentation of some special structures and special loads.

Day Two :

- Review of the design concept of steel structures.
- Review of the design concept of reinforced concrete structures.
- Review of the design codes used by STAAD Pro 2005 of steel structures.
- Review of the design codes used by STAAD Pro 2005 of reinforced concrete structures.

Day Three:

- Case study of steel building

Day Four :

- Case study of reinforced concrete building

Day Five:

- Case study of different buildings