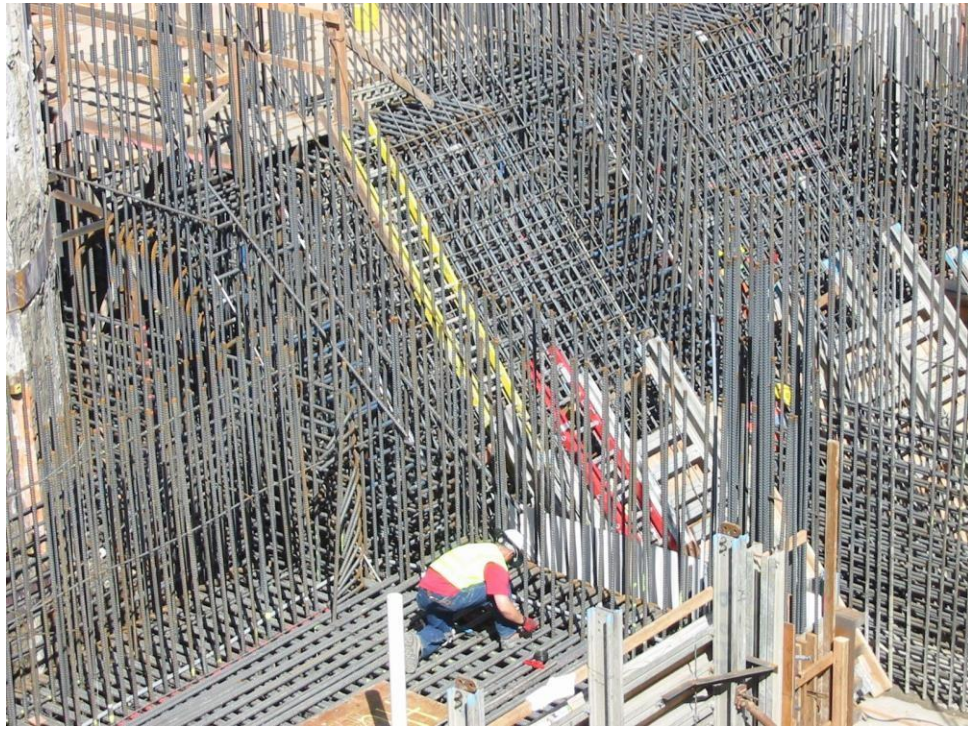




CC093

Reinforced Concrete Design: *Principles and Practice*

Course Introduction:

This course presents the basic concepts and principles of reinforced concrete design. It is specifically structured to meet the technical needs of civil, structural and architectural engineers whose work is related to reinforced concrete design. This reviews different loads and discusses reinforced concrete behavior. It also presents mechanical properties of concrete, flexural theory of reinforced concrete, development length and splicing of steel bars, bending and shears in slabs and beams, various types of reinforced concrete slabs such as solid slab, hollow block slab, paneled beams and flat slab, and design concept of eccentric sections. Examples and case studies will be presented to have hands on application of the materials covered in the course.

Course Objectives:

Upon successful completion of this course, the delegates will be able to:

- Determine the basic knowledge of reinforced concrete design
- Create a design on the different types of slabs
- Recognize the behavior of reinforced concrete structures under different types of loads
- Illustrate the mechanical properties of concrete
- Discuss flexural theory of reinforced concrete and the design concept of eccentric sections

Who Should Attend?

This course is intended for civil, structural and architectural engineers whose work is related to reinforced concrete design. Hence, this course can be potentially useful to those responsible for reinforced concrete structures design.

Course Outline:

Day 1:

- Load Types
- Solid Slabs

Day 2:

- Hollow Block Slabs
- Paneled Beams

Day 3:

- Flat Slabs
- Columns Subjected to Compression

Day 4:

- Design of Sections

Day 5:

- Examples and Case Studies

Course Methodology:

A variety of methodologies will be used during the course that includes:

- (30%) Based on Case Studies
- (30%) Techniques
- (30%) Role Play
- (10%) Concepts
- Pre-test and Post-test
- Variety of Learning Methods
- Lectures
- Case Studies and Self Questionnaires
- Group Work
- Discussion
- Presentation

Course Certificate:

International Center for Training & Development (ICTD) will award an internationally recognized certificate(s) for each delegate on completion of training.

Course Fees:

To be advised as per course location. This rate includes participant's manual, Hand-Outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Timings:

Daily Course Timings:

08:00 - 08:20 Morning Coffee / Tea

08:20 - 10:00 First Session

10:00 - 10:20 Coffee / Tea / Snacks

10:20 - 12:20 Second Session

12:20 - 13:30 Lunch Break & Prayer Break

13:30 - 15:00 Last Session