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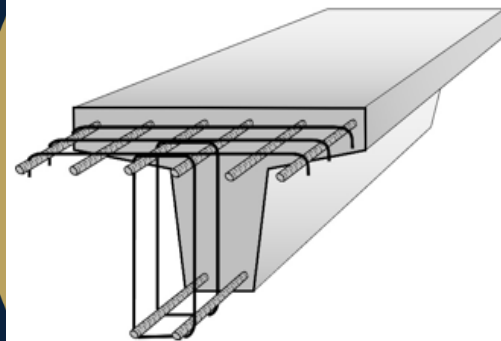


# SAICE Academy : Design of Reinforced Concrete Structural Elements to SANS 51992-1-1 2025

1 CPD POINTS

**SAICEstr26/04215/29**

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SP\_028/2029



**REINFORCED CONCRETE  
DESIGN**  
To SANS 51992-1-1

**Presented By: Greg Parrott Pr Tech Eng**

## Introduction

This course provides a detailed overview of the design of reinforced concrete structural elements in accordance with the newly published SANS 51992-1-1: 2025 standard. The training is essential for all civil and structural engineers involved in the design of concrete structures, as it covers the transition from the old SANS 10100-1 standard, which will be withdrawn in December 2026.

The course is presented by Greg Parrott, a leading expert in the field, and will equip you with the necessary knowledge and skills to apply the new Euro Standard-based regulations in your practice.

## Key Learning Areas

This course will cover the following key areas in detail:

### 1. Fundamentals of Limit State Design

**Limit State Design (LSD) Philosophy:** Understand the core principles behind the new design standard.

**The LSD Equation:** Learn how to apply the fundamental equation for limit state design.

**Partial Factors:** Grasp the concept of partial factors for materials and loads.

**Design Resistance vs. Design Effect:** Differentiate between design resistance and the effects of loads on a structure.

**Limit States:** Explore the different categories of Ultimate Limit States (ULS) and Serviceability Limit States (SLS).

**2. Design of Beams**

**Flexural Design:** Learn the principles of designing beams to resist bending moments.

**Deflection Control:** Understand the methods for calculating and controlling beam deflection.

**Shear and Torsion:** Master the design of beams to resist shear forces and torsional moments.

**3. Design of Slabs**

**Flexural Design:** Apply your knowledge to the design of one-way and two-way spanning slabs.

**Deflection Control:** Learn how to ensure that your slab designs meet the required deflection limits.

**Shear Design:** Understand the principles of shear design for slabs.

**4. Design of Columns**

**Column Design:** Learn how to design reinforced concrete columns to resist axial loads and bending moments.

**More about the Presenter:**

Greg Parrott is a well known structural engineer with extensive experience in teaching students and training professionals on the design of reinforced concrete and steel structures. He has been actively involved in the development of text books on these topics and has more recently published a book on the new **SANS 51992-1-1** standard which will serve as the course notes for this course.

**Register?**

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In-house courses can be arranged on request but are subject to a minimum number of delegates.