

COURSE OUTLINE

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Module 1: Analysis of Statically Determinate Beams

Lesson 1: Introduction

Lesson 2: Axial Force, Shear Force and Bending Moment in Beam

Lesson 3: Deflection of Beam: Direct Integration Technique – 1

Lesson 4: Deflection of Beam: Direct Integration Technique – 2

Lesson 5: Deflection of Beam: Moment-Area Method

Lesson 6: Deflection of Beam: Conjugate Beam Theory

Module 2: Analysis of Statically Indeterminate Beams

Lesson 7: Introduction

Lesson 8: Force Method: Method of Consistent Deformation

Lesson 9: Force Method: Three-Moment Equation

Lesson 10: Force Method: Beams on Elastic Support

Lesson 11: Displacement Method: Slope Deflection Equation – 1

Lesson 12: Displacement Method: Slope Deflection Equation – 2

Lesson 13: Displacement Method: Slope Deflection Equation – 3

Lesson 14: Displacement Method: Slope Deflection Equation – 4

Lesson 15: Displacement Method: Moment distribution method – 1

Lesson 16: Displacement Method: Moment Distribution Method – 2

Lesson 17: Displacement Method: Moment distribution method – 3

Lecture 18: Displacement Method: Moment distribution method – 4

Lesson 19: Displacement Method: Moment distribution method – 5

Lesson 20: Approximate analysis of fixed and continuous beams – 1

Lesson 21: Approximate analysis of fixed and continuous beams – 2

Module 3: Columns and Struts

Lesson 22: Columns and Struts

Lesson 23: Columns and Struts

Lesson 24: Beam-Column

Module 4: Riveted and Welded Connections

Lesson 25: Rivet Joints: Strength

Lesson 26: Rivet joints: Design

Lesson 27: Welded Joints: Strength

Lesson 28: Welded Joints: Design

Module 5: Stability Analysis of Gravity Dams

Lesson 29: Stability analysis of gravity dams

Lesson 30: Stability Analysis of Gravity Dams: Stability

Lesson 31: Stability Analysis of Gravity Dams

Lesson 32: Stability Analysis of Gravity Dams: Profile