

**Relevant Course: Analysis of Structures**

**Relevant Department: Civil Engineering**

**Relevant Semester: 4<sup>th</sup> Semester**

**Topic Description and Outline:**

This topic would cover the following:

- Influence Lines for Statically Determinate Beams and Frames Tabulation Method
- Equation Method
- Muller Breslau Principle
- Calculation of critical stress resultants due to concentrated and distributed moving loads
- Floor Girders Trusses
- Influence Lines for Statically Indeterminate Structures Beams
- Frames

**Pre- requisites:**

Analysis of Statically Determinate Structures,

Analysis of Statically Indeterminate Structures by Force Method.

Students should be familiar with:

Analysis of statically determinate structures such as beams, frames and trusses i.e. they should be able to:

(i) Calculate reaction, shear force and bending moment of statically determinate beams and frames,

(ii) Calculate member forces of statically determinate truss members.

Analysis of Statically Indeterminate Structures using Force Method.