

**Course Name:** Structural Analysis 2

**Course Number:** 20-013

**Credit:** 2

**Prerequisite:** Structural Analysis 1 (20-121)

**Course Description (Objectives):**

The main objective of this course is to provide the knowledge to calculate distribution of forces in members of indeterminate structures and to calculate the resultant deformations.

**Course Content (outline):**

- Analysis of indeterminate structures by Displacement Method: Slope-deflection method
- Analysis of indeterminate structures by Displacement Method: Moment distribution method
- Nonprismatic members
- Approximate analysis of structures
- Influence line for indeterminate structures

**References:**

- Hibbeler, Russell C. *Structural analysis*. Pearson Prentice Hall, 2014.
- Hsieh, Yuan-Yu. *Elementary theory of structures*. Pearson Prentice Hall, 1995.
- Norris, C. H., J. B. Wilbur, S. Utku. *Elementary Structural Analysis*, McGraw Hill, 1976.
- Wang, Chu-Kia, Chu-Kia Wang. *Intermediate structural analysis*. McGraw Hill, 1982.