

Course Name:

Theory of Plates and Shells

Course Number: 20-133	Credit: 3
Program: Graduate	Course Type: Technical Selective
Prerequisite: -	Corequisite: -

Course Description (Objectives):

The main objective of this course is to enable students to understand, analyze, and design plate and shell structures under various loading conditions. With a focus on theoretical foundations, advanced numerical methods, and practical applications, the course prepares students to tackle engineering problems related to plate and shell structures.

Course Content (outline):

- Chapter 1: Theory of Plates
- Chapter 2: Theory of Shells

References:

- Ugural (2018), Plates and Shells: Theory and Analysis, CRC Press.
- Szilard (2004), Theories and Applications of Plate Analysis: Classical, Numerical, and Engineering Methods, John Wiley.
- K. Bhaskar and T.K. Varadan (2014), Plates: Theories and applications, John Wiley.
- Anh Le van (2017), Nonlinear theory of elastic plates, Elsevier.
- Timoshenko, and Woinowsky-Krieger (1964), Theory of Plates and Shells, McGraw-Hill.
- H. Takabatake (2019), Simplified analytical methods of elastic plates, Springer.