

**Course Name:**

Experimental Analysis of Structures

Course Number: 20-201	Credit: 3
Program: Graduate	Course Type: Technical Selective
Prerequisite: -	Corequisite: -

Course Description (Objectives):

This course introduces students to the tools and equipment used for loading and experimental modeling. Its goal is to enhance students' ability to design engineering experiments and analyze the results obtained from them.

Course Content (outline):

- Chapter 1: Introduction to types of quasi-dynamic and dynamic loadings
- Chapter 2: Seismic analysis methods of structures using numerical and experimental modeling
- Chapter 3: Study of various experimental modeling methods for structures
- Chapter 4: Introduction to different types of shake tables
- Chapter 5: Familiarization with various loading devices under different conditions
- Chapter 6: Introduction to various filtering methods

References:

- Harris, H. G., Sabnis, G. M., Structural Modeling & Experimental Techniques. CRC Press.
- Montgomery, D. C., Design & Analysis of Experiments. John Wiley.
- Sullivan, T. J., et al. Introduction to Structural Testing Techniques in Earthquake Engineering, Report No. ROSE-2004/01