

Course objectives:

- We introduce you to STAAD.Pro's state of the art user interface, visualization tools, powerful analysis and design engines with advanced finite element (FEM) and dynamic analysis capabilities.
- Student will know how to perform accurate and numerically efficient plate/shell element incorporating out-of-plane shear and in-plane rotation; automatic element mesh generation; comprehensive element stress output including in-plane stresses, out-of-plane shear, bending and principal stresses at nodal as well as user specified points
- Student will learn how to achieve user-specified design parameters to customize design
- Student will know how to perform code check, member selection and optimized member selection consisting of analysis/design cycles.
- Student will know how to design concrete beams/columns/slabs/footings as per all major international code

CAD:

SOFTWARE: STAAD PRO or Equivalent

EXERCISES:

1. 2-D Frame Analysis and Design
2. Steel Tabular Truss Analysis and Design
3. 3-D Frame Analysis and Design
4. Retaining Wall Analysis and Design
5. Simple tower Analysis and Design
6. One Way Slab Analysis & Design
7. Two Way Slab Analysis & Design
8. Column Analysis & Design

Course outcomes:

- STAAD.Pro comes with flexible modeling environment, advanced features, and fluent data collaboration. It is the world's number one structural analysis and design software that supports Indian and all international codes
- STAAD.Pro allows structural engineers to analyze and design virtually any type of structure. Structural engineering firms, structural consultants, departments in construction companies, owner/operators, and government agencies, and offshore platform designers' use this software extensively.
- STAAD.Pro Lab. Covers all the steps involved in structural analysis and design of concrete and steel.
- We introduce you to STAAD.Pro's state of the art user interface, visualization tools, powerful analysis and design engines with advanced finite element (FEM) and dynamic analysis capabilities.

TEXT BOOK:

1. Computer Aided Design Lab Manual by Dr. M. N. SeshaPrakash And Dr. C. S. Suresh