

Course: Autodesk Navisworks

Course Description

Navisworks is a project review software which enables architecture, engineers, and construction professionals to review integrated models and data with stakeholders to gain better control over project outcomes.

Students will learn integration, analysis, and communication tools which help to coordinate disciplines, resolve conflicts, and plan projects before construction or renovation begins.

Class and Lab hours: 60 (40 Theory, 20 Lab)

Prerequisite: *Need to be an architect/engineer with basic knowledge of design.*

Course Objectives

Upon completion of the course, trainees/students will be able to:

- 1. Helps to combine 3D Models.*
- 2. Understand to Navigate around them.*
- 3. Add Foundation, Beams, Floors and Open Web Joist*
- 4. Create Project Details and Schedules.*

Major Instructional Areas:

- The basics of Navisworks.*
- To work with Quantity Takeoff.*
- To create 5D simulation.*
- To work with the renderings and also help to navigate around them.*

Detailed Course Outline

Unit Heading	Unit Outcomes	Unit Topics
1. Introduction to Autodesk Navisworks	<ul style="list-style-type: none"> • The basics of Navisworks • Navisworks interface 	<ul style="list-style-type: none"> • Introduction to Navisworks • Basic Features of Navisworks Manage • The Interface • Shortcut Keys • Navisworks Workspace • Work with BIM 360
2. Navigating in Navisworks	<ul style="list-style-type: none"> • Introduction to Navisworks • Introduction of Navigation tools 	<ul style="list-style-type: none"> • Using the Head-Up Display Feature • Setting View Orientation • The View Cube • The Navigation Bar • Camera View • Reference Views
3. Selecting, Controlling and Reviewing Objects	<ul style="list-style-type: none"> • To work with Object Selection Method • To control the visibility of objects • To work with the links 	<ul style="list-style-type: none"> • Using Object Selection Methods • Saving Selections • Object Properties • Linking Object Databases to Objects • Using Measure Tools • Working with Direct Constraint for Measurements • Tags and Comments • Controlling the appearance of the model • The Appearance of Profiler Window
4. Viewpoints and Animations	<ul style="list-style-type: none"> • To work with Viewpoints • To work with Sectioning and Animations in Navisworks 	<ul style="list-style-type: none"> • Working with the Viewpoints • Sectioning in Navisworks • Animation in Navisworks
5. Working with Timeliner	<ul style="list-style-type: none"> • To work with Timeliner • Animation to Timeliner 	<ul style="list-style-type: none"> • Introduction to Timeliner • Playing Simulation • Exporting Animation from the Timeliner • Adding Animation to Timeliner •

6. Working with Animator and Scripter	<ul style="list-style-type: none"> • <i>To work with the Animator Window</i> • <i>To work with the Scripter Window</i> 	<ul style="list-style-type: none"> • <i>Working with the Animator window</i> • <i>Creating Object Animation</i> • <i>Editing Key frames</i> • <i>Working with the Scripter window</i>
7. Quantification	<ul style="list-style-type: none"> • <i>To work with Quantification Window</i> • 	<ul style="list-style-type: none"> • <i>Understand Quantification</i> • <i>Work with the Quantification Workbook Window</i> • <i>Takeoff Methods</i>
8. Clash Detection	<ul style="list-style-type: none"> • <i>To work with Clash Detection</i> • <i>Link Clash Test with Timeliner</i> 	<ul style="list-style-type: none"> • <i>Work with the Clash Detection Window</i> • <i>Managing Clash Tests</i> • <i>Link Clash Tests with the Timeliner and Object Animation</i> • <i>Customizing Clash Detection Window</i>
9. Autodesk Rendering in Navisworks	<ul style="list-style-type: none"> • <i>To work with the Rendering Window</i> 	<ul style="list-style-type: none"> • <i>The Autodesk Rendering Window</i> • <i>Rendering Using Autodesk Graphics</i> • <i>Rendering in Autodesk 360</i>

Evaluation:

There will be one exam that every trainee/student must pass with at least 75% or more to get a certificate of completion from BIMNCAD.

Suggested Learning Approach

In this course, you will study individually or within a group of your peers. As you work on the course deliverables, you are encouraged to share ideas with your peers and instructor, work collaboratively on projects and team assignments, raise critical questions, and provide constructive feedback.