INVENTATEQ

MASTER NX NASTRAN COURSE Online Placement

Build In-Demand Professional Expertise with Real-Time Hands-on-Job Training

COURSE MODALITY

Flexible Learning Options

Live Online Classes | Self-Paced Videos

COURSE HIGHLIGHTS

- 100% Practical Oriented Training Program
- Industry Standard Software Tools Used
- 100% Dedicated Placement Support Till You Get Placed

Free Consultation
Speak to our Career Counsellor
FREE Counselling
+91 8754321000

Call us NOW
STARTS HERE !

18+ Years of Experience

500+ Hiring Partners

25K Students Trained

10K Placements

Global Certification

ARE YOU FACING THESE CHALLENGES ?

- Still searching for your first job after graduation?
- Worried about the Right Direction? Unsure how to Start your Career?
- Struggling with Low Salary Packages despite Hard Work & Skills?
- Not getting Interview calls despite applying for Multiple Jobs?

Those Unanswering Hedges You

- Fresher Jobs Not Available
- Your Degree Has No Value
- Need Experience to Get Job
- Need Job to Get Experience
- Unable to Get Interview Calls
- Your Resume Not Getting Shortlisted
- Poor Communication Skills
- Not Confident in Interviews
- Not Aware of Current Industry Requirements

ABOUT INVENTATEQ

Inventateq is a leading provider of engineering solutions and training, committed to transforming businesses and empowering professionals.

Our Mission

To empower engineers and businesses with cutting-edge technology and expertise, driving innovation and excellence in every project we undertake.

Our Vision

To be the global leader in engineering solutions and training, recognized for our commitment to quality, innovation, and customer success.

Why Thousands Choose Inventateq?

- 15+ Years of Experience
- 500+ Hiring Partners
- 25,000+ Students Trained
- 10,000+ Placements

We Collaborate With

Deloitte. | Capgemini | accenture | cognizant | ANSYS

WHY LEARN NX NASTRAN ?

NX Nastran is a powerful finite element analysis (FEA) software used for simulating and analyzing complex engineering problems.

CAREER OUTLOOK OF NX NASTRAN

- Aerospace Engineer: ₹6 LPA - ₹20 LPA
- Automotive Engineer: ₹5 LPA - ₹18 LPA
- Mechanical Design Engineer: ₹4 LPA - ₹15 LPA
- Structural Analysis Engineer: ₹5 LPA - ₹16 LPA
- Thermal Analysis Engineer: ₹4 LPA - ₹14 LPA
- Research and Development Engineer: ₹6 LPA - ₹22 LPA
- Industrial Design Engineer: ₹4 LPA - ₹12 LPA
- Finite Element Analyst: ₹5 LPA - ₹16 LPA

SALARY INCREMENT EXPECTATIONS

- Student Success Dashboard
- Personalized Learning Path
- Performance Tracking
- Instant Feedback
- Skill Assessments
- Progress Reports

CERTIFICATE

- Industry-Recognized Certification
- Boosts Your Resume
- Validates Your Skills
- Increases Job Opportunities
- Global Recognition
- Career Advancement

Start Your Journey Today and Unlock Your Potential. Enrollment Is Now Open!

₹5.0 LPA – ₹14 LPA

WHY INVENTATEQ ?

Inventateq is the top placement institute. Students are always our priority and we prove it.

STUDENT SUCCESS STORIES

- 100% Placement Assistance Support
- Dedicated Career Counselor
- Resume and Interview Preparation
- Industry Mock Technical Interviews
- Online Interviews Like Real Time

COURSES & PLACEMENT VIDEOS

- Student Success Dashboard
- Personalized Learning Path
- Performance Tracking
- Instant Feedback
- Skill Assessments
- Progress Reports

- Industry-Recognized Certification
- Boosts Your Resume
- Validates Your Skills
- Increases Job Opportunities
- Global Recognition
- Career Advancement

At Inventateq, Your Success Is Our Mission !

GUARANTEED PLACEMENT SUPPORT

We don't just teach, we prepare you for the real world!

- Aptitude Training
- Technical Training
- Soft Skills Training
- Resume Preparation
- Mock Interviews
- Industry Expert Sessions
- Job Portal Access
- Dedicated Placement Support

OUR PLACEMENT STATS

- 10,000+ Students Placed
- 500+ Hiring Partners
- 95% Placement Rate
- 6 LPA Average Salary

Start Your Success Placements

CAREER PROGRESSION

Our structured career progression framework empowers professionals to achieve their full potential, from entry-level positions to leadership roles.

DESIGNATION	FOCUS & RESPONSIBILITIES	PORTFOLIO FOCUS
Trainee Engineer Fresher Level	Learning fundamentals and basic tool operations, Assisting senior engineers with simple tasks, Understanding industry workflows and standards	Completing foundational training projects, Documenting learning outcomes and skills acquired
Assistant Engineer 0-1 Year Experience	Working on guided projects with supervision, Performing routine analysis and calculations, Learning to interpret results and prepare reports	Building first independent projects, Creating portfolio-worthy case studies
Design Engineer 1-2 Years Experience	Leading moderate-complexity projects, Designing components and systems, Collaborating with cross-functional teams	Completed industry-standard projects, Professional project documentation
Structural Engineer 2-3 Years Experience	Specializing in structural analysis, Advanced simulations and optimization, Mentoring junior engineers	Complex structural analysis projects, Optimization and validation reports
Senior Engineer 3-5 Years Experience	Leading technical projects, Making critical engineering decisions, Managing project timelines and resources	Comprehensive engineering portfolio, Leadership and project management examples

SKILLS ROADMAP

Our skills roadmap provides a clear path to master industry-demand skills and tools.

BEGINNER	PRACTICAL JOURNEY	INTERMEDIATE
Foundation Phase Basic Concepts	Learning fundamental principles, Understanding core concepts, Building basic knowledge	**Application Phase** Practical Implementation
Hands-On Practice Practical Skills	Applying theoretical knowledge, Working on real-world projects, Developing practical skills	**Advanced Techniques** Complex Problem Solving
Mastery & Specialization Expert Level	Developing expertise in specific areas, Advanced techniques and methodologies, Becoming a subject matter expert	**Professional Application** Industry Standards

DETAILED MODULE PLAN

Module 1: Introduction to Finite Element Analysis (FEA)

- Basics of Finite Element Method
- Engineering Simulations
- Types of Analysis in NX Nastran
- Applications in Various Industries
- Overview of Modeling, Pre-processing, Solving, Post-processing Workflow

6 HOURS LAB

Explore the NX Nastran environment, navigation, and complete your first Finite Element Method exercise.

6 HOURS ASSIGNMENT

Research and present a real-world application of FEA in your industry of interest.

Module 2: NX Nastran Interface & Setup

- Model Preparation
- Material Properties
- Units and Coordinate Systems
- Boundary Conditions Overview
- Basic Load Definitions

6 HOURS LAB

Set up a simple cantilever beam model with material properties and boundary conditions.

6 HOURS ASSIGNMENT

Practice setting up models for Types of Structural Analysis you've learned.

Module 3: Meshing Techniques

- Mesh Generation Methods
- Element Types (1D, 2D, 3D)
- Mesh Quality and Refinement
- Mesh Convergence Studies
- Connections and Rigid Elements

6 HOURS LAB

Create and refine meshes for a plate with a hole and perform a mesh convergence study.

6 HOURS ASSIGNMENT

Explore the Connections and Rigid Elements and practice with the exercises in NX Nastran Help.

Module 4: Structural Analysis

- Static Structural Analysis
- Modal and Buckling Analysis
- Contact Modeling
- Boundary Conditions
- Load Cases and Combinations

6 HOURS LAB

Perform a static structural analysis on a bracket. Do a Buckling analysis on a slender column.

6 HOURS ASSIGNMENT

Explore the Contact Modeling and Load Cases and practice with the exercises in NX Nastran Help.

Module 5: Modal Analysis

- Modal Properties of Structures
- Vibration Analysis
- Natural Frequencies
- Eigenvalue Problems
- Structural Dynamics Basics

6 HOURS LAB

Perform a modal analysis on a cantilever beam and compare it with theoretical values.

6 HOURS ASSIGNMENT

Explore the Structural Dynamics and Eigenvalue Problems and practice with the exercises in NX Nastran Help.

Module 6: Thermal Analysis

- Heat Transfer Basics
- Steady-State Thermal Analysis
- Transient Thermal Analysis
- Thermal Boundary Conditions
- Temperature-Dependent Properties

6 HOURS LAB

Perform a steady-state thermal analysis on a heat sink and a transient thermal analysis on a cooling fin.

6 HOURS ASSIGNMENT

Explore the Thermal Boundary Conditions and Temperature-Dependent Properties and practice with the exercises in NX Nastran Help.

Module 7: Advanced Analysis Types

- Nonlinear Analysis Basics
- Material Nonlinearity
- Contact Analysis
- Design Optimization
- Fatigue Analysis Overview
- Multi-Physics Applications

6 HOURS LAB

Perform a nonlinear analysis on a rubber seal and a fatigue analysis on a cyclic loading component.

6 HOURS ASSIGNMENT

Explore the Nonlinear Analysis and Design Optimization and practice with the exercises in NX Nastran Help.

Module 8: Optimization & Sensitivity

- Optimization Basics
- Sensitivity Analysis
- Parameters and Variables
- Design Studies
- Interpreting Optimization Results

6 HOURS LAB

Perform a topology optimization on a bracket and a sensitivity analysis on a beam.

6 HOURS ASSIGNMENT

Explore the Optimization and Sensitivity Analysis and practice with the exercises in NX Nastran Help.

Module 9: Post-Processing & Reporting

- Result Visualization
- Contour Plots and Animations
- Report Generation
- Data Interpretation
- Design Validation

6 HOURS LAB

Create contour plots, animations, and a comprehensive report for a structural analysis project.

6 HOURS ASSIGNMENT

Explore the Post-Processing and Reporting and practice with the exercises in NX Nastran Help.

Module 10: Real-Time Projects

- Automotive Component Analysis
- Aerospace Wing Analysis Project
- Consumer Product Design Validation
- Industrial Equipment Project
- Team Collaboration Exercises
- Project Presentations
- Industry Expert Feedback

6 HOURS LAB

Work on a comprehensive project integrating all learned skills, presenting results and findings.

6 HOURS ASSIGNMENT

Prepare a professional portfolio showcasing your projects and skills for job interviews.

REAL-WORLD PORTFOLIO PROJECTS

Transform Your Skills with Hands-on Industry Projects

Project 1: Automotive Component Analysis

Objective: Analyze stress distribution in a car suspension arm under various load conditions.

What you do: Import CAD model, apply boundary conditions, perform static structural analysis, optimize material usage.

Tools used: NX Nastran, Pre/Post Processor, Material Library.

Project outcome: Reduced weight by 15% while maintaining safety factor above 2.0.

Project 2: Structural Bracket Analysis Project

Objective: Design and analyze a mounting bracket for aerospace application.

What you do: Create finite element model, apply loads and constraints, perform linear static analysis.

Tools used: NX Nastran, Solid Edge, Material Database.

Project outcome: Validated design meets all strength requirements with optimized mass.

Project 3: Thermal Simulation Case Study

Objective: Simulate heat transfer in an electronic enclosure to prevent overheating.

What you do: Model heat sources, define convection boundary conditions, analyze temperature distribution.

Tools used: NX Nastran, Thermal Solver, Post-Processing Tools.

Project outcome: Identified hotspots and recommended cooling solutions reducing temperature by 20°C.

Project 4: Vibration Analysis Project

Objective: Analyze natural frequencies and mode shapes of a rotating machine component.

What you do: Perform modal analysis, identify resonance frequencies, recommend design changes.

Tools used: NX Nastran, Modal Solver, Visualization Tools.

Project outcome: Successfully avoided resonance by shifting natural frequencies by 25%.

Project 5: Domestic Oil Rewriter

Objective: Design and analyze a pressure vessel for oil refining application.

What you do: Create geometry, mesh model, apply pressure loads, perform stress analysis.

Tools used: NX Nastran, Geometry Modeler, Mesh Generator.

Project outcome: Optimized wall thickness reducing material cost by 10% while meeting safety standards.

Project 6: Re-Rotor Unit- Ex. Rod Analysis

Objective: Analyze rotor dynamics and critical speeds for high-speed rotating equipment.

What you do: Model rotor system, perform modal and harmonic analysis, identify critical speeds.

Tools used: NX Nastran, Rotor Dynamics Solver, Post-Processing.

Project outcome: Determined safe operating speed range and recommended bearing modifications.

ASSESSMENT FRAMEWORK

Our assessment framework is designed to measure your progress and ensure you're on the right track.

Assessment	Assessment Focus	How Assessment
Initial Assessment Pre-Training Evaluation	Evaluating your current skills and knowledge, Identifying areas for improvement, Setting personalized learning goals	Skill-based quizzes and practical tests, Interactive coding challenges, Self-assessment questionnaires
Live Performance Evaluation Real-Time Assessment	Tracking your learning during live sessions, Monitoring participation and engagement, Assessing practical application	Real-time quizzes and polls, Live coding exercises, Group discussions and presentations
Hands-On Project Assessment Practical Evaluation	Applying theoretical knowledge, Problem-solving abilities, Project implementation skills	Project submissions with detailed feedback, Code reviews and quality checks, Peer evaluations
Final Comprehensive Assessment Capstone Project	Overall understanding of the course, Integration of multiple concepts, Professional readiness	Capstone project presentation, Comprehensive exam, Portfolio review
Technical Mock Test	Technical knowledge, Problem-solving skills, Interview preparation	Mock interviews with industry experts, Technical assessments, Feedback and improvement plans

RESUME, GITHUB & LINKEDIN

Build a Professional Resume, GitHub & LinkedIn Profile for Job Interviews

- Industry-standard resume templates with expert guidance
- Showcase your projects effectively on GitHub
- Optimize your LinkedIn profile to attract recruiters
- Highlight your skills and achievements professionally
- Get personalized feedback from industry professionals
- Learn how to network and engage with recruiters
- Stand out from the crowd with a polished online presence
- Increase your chances of getting interview calls

OUR STUDENT

Meet the learners who turned their goals into success stories through dedication, skill, and continuous growth.

READ REVIEWS

WATCH VIDEOS

Inventateq Success & Student Placement Testimonials | Real Stories of Career Transformation

Watch Now

Ground Crew to Engineer: How Inventateq Helped Me Switch Careers

Watch Now

Career Change Success Story | From Ground Crew to Engineer

Watch Now

Inventateq Placement Success Stories | Real Interviews, Real Results

Watch Now

Ms. Deepa Lakshmi Success Story | Placed in TCS | Inventateq

Watch Now

Mr. Vinoth Kumar Success Story | Job Package

Watch Now

CONTACT US

JOB HUNTING ENDS HERE

Ready to start your journey? Contact us today and let's discuss how we can help you get your Dream Job!

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+91 73973 33878

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Live Online Classes | Self-Paced Videos

Flexible Learning Options