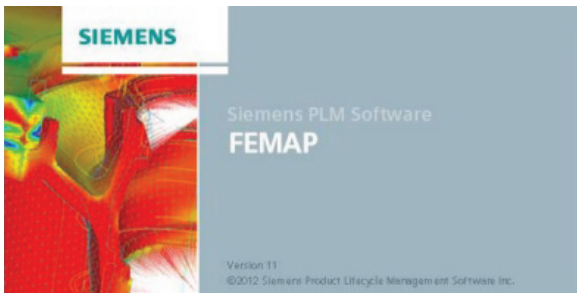


Femap & NX Nastran Training

Foundation | Advanced | Customization



When: April 21-25, 2014

Where: Portland, Oregon

Cost: \$485/day. Students may attend the Foundation and Advanced Sections (four days) or the complete week with the addition of the Customization/Automation training.

What's Included: Course manual with DVD. One lunch and one social event are provided to encourage class interaction with fellow users.

Registration: Early registration is encouraged since space is limited to 18 students and it is expected that the class will fill. *To register please send email to:*

Training@PredictiveEngineering.com
Attn: George Laird, Ph.D., P.E.

About Predictive Engineering

Based in Portland, Oregon, Predictive has over 16 years experience with Femap and Nastran and has developed a solid reputation as the "go to company" for Femap training and services. References can be obtained at our website:

www.PredictiveEngineering.com.



Welcome Femap and NX Nastran Colleague,

This week-long course taught by **Predictive Engineering** will take the new user from ground floor through FEA best practices to advanced subjects dealing with manifold and non-manifold surface modeling, detailed plate meshing and tet versus hex meshing. The final day will finish with a focus on customization and automation using Excel and Femap's own API interface. The course will be fast paced and follow a workshop format with theory, practice and Q&A sessions.

Course Outline

Foundation of FEA Modeling with Femap + NX Nastran (Two Days)

- I. FEA theoretical background w.r.t Beam, Isoparametric and special elements
- II. Tour of Femap interface: Preferences, Panes, Toolboxes, Help and Tips & Tricks
- III. Femap modeling workflow for Beam, Plate and Solid (BPS) elements
- IV. Static stress analysis and results interpretation of BPS elements
- V. Introduction to Plate and Solid modeling with surface and solid geometry and Mesh Toolbox
- VI. Introduction to Assembly Modeling: Glued, Contact and Rigid element Usage

Advanced Femap + NX Nastran (Two Days)

- I. Surface modeling using Manifold and Non-Manifold geometries
- II. Advanced surface preparation for high-accuracy Plate modeling
- III. Meshing toolbox tips and tricks with Jacobian optimization
- IV. Building efficient assemblies via efficient Solid modeling (tet & hex elements) and Linear Contact
- V. Introduction to linear dynamics (modal analysis tips & tricks)
- VI. Non-linear analysis: geometric versus material non-linearity and best practices

Customization & Automation of Femap (One Day)

- I. Automation of results processing via Excel
- II. Introduction to Femap's macro capability
- III. Introduction to Femap's API via Custom Tools
- IV. Programming Femap's API