



Welcome Femap Colleague,

This week-long course 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.

When: April 2–6, 2012

Where: Portland, OR (exact location TBD)

Cost: \$475/day. *Students may attend either the Introduction or the Advanced Sections or just the last day of Customization/Automation training.*

What's Included: Course manual with DVD. Two lunches and two social events are provided to encourage class interaction with fellow users.

Registration:

Early registration is encouraged since space is limited to 20 students and it is expected that the classes will fill quite quickly.

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 15 years experience with Femap and Nastran and has developed an international reputation as the "go to company" for Femap training and services. References can be obtained at our website: www.PredictiveEngineering.com.



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: Tips & Tricks, Preferences, Panes, Toolboxes and Help
- III. Femap 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 (Mesh Toolbox)
- VI. Introduction to Assembly Modeling: Glued, Contact and Rigid

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 and hex elements) and linear contact
- V. Introduction to linear dynamics (modal analysis tips and 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