

Introductory FLUENT 6.3 Training Course

COURSE NO: FL10020 LENGTH: 2 Days

FLUENT 6.3 is a state-of-the-art computer program for modelling fluid flow and heat transfer in complex geometries. All functions required to compute a solution and display the results are accessible through an interactive, menu-driven interface. This course is intended for people who have had little or no experience with FLUENT 6. Participants will learn about CFD modelling procedures, setting boundary conditions, turbulence modelling, heat transfer and other processes including multiphase flows.

Day 1 Agenda

8.30am	Registration
9.00am	Lecture: Introduction to ANSYS/FLUENT Lecture: Introduction to CFD Analysis
10.00am	Demonstration of the CFD process
10.30am	Tutorial: Introductory Tutorial
11.45am	Lecture: Solver Basics
12.30pm	Lunch
1.30pm	Lecture: Boundary Conditions
2.15pm	Tutorial: Boundary Conditions Tutorial
3.45pm	Lecture: Solver Settings
4.30pm	Tutorial: Solver Settings Tutorial
5.30pm	Break for the day

Day 2 Agenda

9.00am	Lecture: Turbulence Modelling
9.45am	Tutorial: Moving Component Tutorial: Using the MRF model
11.15pm	Lecture: Heat Transfer Modelling
12.00pm	Tutorial: The Mixture and Eulerian Models
1.00pm	Lunch
2.00pm	Lecture: Multiphase Modelling
3.00pm	Tutorial: Evaporating Liquid Spray
4.30pm	Tutorial: The Eulerian model for Granular Flows
5.30pm	Break for the day



Introductory Gambit 2.3 Training Course

COURSE NO: FL10011 **LENGTH:** 2 Days

GAMBIT 2.3 is an integrated pre-processor for CFD analysis. GAMBIT is used to build your geometry and generate a mesh for it or, alternatively, import geometry created by a third-party CAD/CAE package, make modifications to it and generate the mesh. You will learn how to use all of the meshing options including geometry decomposition for structured meshing, automatic unstructured hexahedral meshing, and high quality triangular and tetrahedral grid generation. This course is for beginners to GAMBIT who are using either of the Fluent solvers FLUENT 6, FIDAP 8, and POLYFLOW 3.

Day 1 Agenda

9.00am	Lecture: Introduction to GAMBIT + Demonstration
10.15am	Tutorial: Creating and Meshing Basic Geometry
11.00am	Lecture: Introduction to Geometry Operations
11.45am	Tutorial: Geometry Creation Exercises
1.00pm	Lunch
2.00pm	Lecture: CAD/CAE Import and Geometry Clean-up (Virtual Geometry)
2.45pm	Tutorial: Sedan Geometry (Tolerant Import)
4.00pm	Lecture: Semi Automated Clean up Tools
4.45pm	Tutorial: Catalytic Converter
6.00pm	Break for the day

Day 2 Agenda

9.00am	Lecture: Edge and Face Meshing
10.00am	Tutorial: 2D Geometry and Mesh Generation
11.15am	Lecture: Volume Meshing
12.00pm	Tutorial: 3D Geometry and Mesh Generation
12.30pm	Lunch
1.15pm	Lecture: Mesh Control: Size Functions and Boundary Layers
2.15pm	Tutorial: Using Sizing Functions and Boundary Layers
3.00pm	Lecture: Meshing Strategy
3.45pm	Work on your own Gambit/Fluent Project
5.00pm	Break for the day