

Dates and Locations

BURLINGTON, MA

COMSOL 2-day Intensive	Feb 7-8
AC/DC Modeling	Feb 9
RF, Microwaves & Photonics	Feb 10
COMSOL 2-day Intensive	Mar 6-7
CFD	Mar 8
Heat & Mass Transfer	Mar 9
COMSOL 2-day Intensive	Apr 3-4
Acoustics & Vibration Analysis	Apr 5
Structural Mechanics	Apr 6
COMSOL 2-day Intensive	Apr 30-May 1
Batteries & Fuel Cells	May 2
Electrodeposition	May 3
Corrosion	May 4
COMSOL 2-day Intensive	Jun 5-6
AC/DC Modeling	Jun 7
Plasma Modeling	Jun 8

CHICAGO, IL

COMSOL 2-day Intensive	Apr 17-18
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COLUMBUS, OH

Solving COMSOL Multiphysics Problems	May 8-11
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DALLAS, TX

COMSOL 2-day Intensive	Jan 25-26
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DENVER, CO

COMSOL 2-day Intensive	Apr 17-18
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DETROIT, MI

COMSOL 2-day Intensive	Mar 20-21
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HOUSTON, TX

COMSOL 2-day Intensive	Mar 28-29
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LOS ANGELES, CA

COMSOL 2-day Intensive	Feb 29-Mar 1
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MONTREAL, QC

COMSOL 2-day Intensive	May 15-16
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SALT LAKE CITY, UT

COMSOL 2-day Intensive	Mar 13-14
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SAN JOSE, CA

COMSOL 2-day Intensive	Jan 31-Feb 1
Transport Phenomena & Chemical Reactions	Feb 2
Heat Transfer	Feb 3
COMSOL 2-day Intensive	Jun 5-6
Structural Mechanics	Jun 7
Acoustics & Vibrations Analysis	Jun 8

SEATTLE, WA

COMSOL 2-day Intensive	May 8-9
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COMSOL, Inc.
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Burlington, MA 01803

COMSOL Multiphysics® Training Series



Winter and Spring 2012



2012 Winter and Spring Training Series

Learn to speed up and get the most out of your modeling work by attending a COMSOL training course. These sessions, which feature a combination of hands-on activity and traditional lecture, are taught by our team of expert instructors. For an always updated training calendar, visit www.comsol.com/training.

COURSE INFORMATION:

Courses are full day events. All training material and lunches are included.

PRICING:

One day course - \$695.00
Two day course - \$1,295.00
*Academic pricing is available.

REGISTRATION:

www.comsol.com/training

CONTACT INFORMATION:

Boston: 781-273-3322
Los Angeles: 310-441-4800
Palo Alto: 650-324-9935
course@comsol.com

COMSOL Multiphysics Intensive Training

(2 DAYS)

An intensive introduction to the workflow and key features of COMSOL Multiphysics via a combination of hands-on examples, lecture, and guided tutorials. This course is a recommended prerequisite for all specialized courses.

CFD

Discover how to simulate fluid flow with COMSOL Multiphysics and the CFD Module. Topics include: laminar flow, turbulent flow, non-Newtonian flow, multiphase flow and non-isothermal flow.

Heat Transfer

Students will be introduced to the modeling of all three mechanisms (conduction, convection and radiation) of heat transfer in fluids and solids. Hands-on examples include: convective cooling, phase change modeling, radiation in semi-transparent media, and process control.

Structural Mechanics

Gain knowledge of all aspects of structural mechanics modeling: linear elasticity, geometric and material non-linearities, static, transient, frequency-response, and eigenfrequency analysis, buckling analysis, anisotropic, hyperelastic, elastoplastic, and piezoelectric material models.

Acoustics & Vibrations Analysis

The Acoustics Module will be explored during this course for modeling the coupling of structural vibrations to the sound pressure field in fluids. Hands-on example models include: piezoelectric transducers, loudspeakers, mufflers, and SAW devices.

Corrosion

This course teaches the functionality of the Corrosion Module, and how it can be used for computing current density distributions during corrosion processes. Effects of part shape, ohmic, activation, and mass transport resistance are also covered.

Plasma Modeling

Explore the numerical modeling of the most common types of plasmas including DC discharges, inductively coupled plasmas, wave heated discharges (microwave plasmas) and capacitively coupled plasmas. The course includes hands-on exercises.

Transport Phenomena & Chemical Reactions

Discover the modeling of coupled fluid flow, heat and mass transfer. Topics to be covered include: laminar and turbulent flows, conductive, convective and radiative heat transfer, mass transport in diluted and concentrated systems, multiphase flows, and reaction kinetics.

AC/DC Modeling

This course covers the functionality of the AC/DC Module for modeling of steady-state and low frequency electromagnetic phenomena. Topics to be covered include: electrostatics, magnetostatics, conduction, displacement, and induced current modeling.

Electrodeposition

The course covers how to use the Electrodeposition Module, and how to set up models for investigating the composition and shape of electrodeposits. Impacts of cell geometry, electrolyte and electrode conductivity, electrode kinetics, and mass transport are also considered.

RF, Microwaves & Photonics

Learn how to use the functionality of the RF Module for modeling of high-frequency, wave-type, electromagnetic phenomena. Hands-on examples include: modeling of antennas, resonant structures, microwave heating, photonic waveguides and gratings.

Batteries & Fuel Cells

Attendees will dive into an introduction to batteries and fuel cells modeling at the unit cell level. You will investigate how simulations can be used to study the influence of electrode structure, electrode geometry, and material properties, and operating conditions on the performance of batteries and fuel cells.

Heat & Mass Transfer

Explore the numerical modeling of heat and mass transfer simulations in COMSOL. Heat conduction, convection and radiation, species diffusion and convection, chemical reactions, surface adsorption and desorption are covered in this course.

Solving COMSOL Multiphysics Problems

(4 DAYS)

On completion, you will be proficient in the skills to use COMSOL Multiphysics to set up, solve, troubleshoot and successfully analyze your own multiphysics problems. Taught by AltaSim Technologies COMSOL Certified Consultants.



Sign up today at comsol.com/training