



COMSOL Multiphysics® Training Courses 2020

- Multiphysics Solutions using COMSOL Multiphysics** (4 full-day or 7 half-day course)
Class-based \$2,250.00 Web-based \$2,600.00
In this introductory course, apply best practices in using COMSOL Multiphysics to develop, solve and visualize Multiphysics analyses. Direct interaction with experts in using COMSOL Multiphysics is supported by step-by-step examples to give you the experience to develop practical solutions to your Multiphysics problems.
Classroom:
 - March 3 - 6, 2020
 - June 9 – 12, 2020
 - November 3 – 6, 2020*Web-based:*
 - August 10 – 20, 2020
 - December 7 – 17, 2020
- Solver Setting for Effective Analysis in COMSOL Multiphysics** (1 full-day or 3 half-days course)
\$800.00
Best practices for selection of solver settings to obtain converged solutions for complex Multiphysics analyses are provided. Diagnosing errors and selecting advanced solver settings for Multiphysics problems are demonstrated.
Classroom:
 - May 8, 2020
 - June 18, 2020)
 - August 6, 2020
 - November 20, 2020*Web-based:*
 - April 7 – 9, 2020
 - July 14 – 16, 2020
 - December 1 – 3, 2020
- Electromagnetics in COMSOL Multiphysics: RF & Wave Optics** (2 day course) \$1,350.00
Accurate simulation of RF electromagnetic analyses by selection of the correct boundary conditions and meshing. Application to electromagnetic wave phenomena is demonstrated and supplemented by step-by-step examples.
 - May 6 – 7, 2020
 - September 16 – 17, 2020
 - November 18 – 19, 2020
- Electromagnetics in COMSOL Multiphysics: AC/DC** (1 day course) \$800.00
Approaches for accurate simulation of AC/DC electromagnetic phenomena are highlighted. Application to a range of problems in supplemented by demonstration for a range of AC/DC analyses.
 - May 5, 2020
 - September 15, 2020
 - November 17, 2020
- MEMS Solutions using COMSOL** (1 day course) \$800.00
Analysis methods for Micro-Electro-Mechanical Systems (MEMS) is demonstrated through practical examples for a range of configurations of relevance to practicing MEMS engineers
 - May 4, 2020

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| 6. | Ray Optics in COMSOL Multiphysics | (1 day course) | \$800.00 |
| | <p>For electromagnetic wave simulations where the wavelength is much smaller than the geometric length scale, ray optics provides a method of solving the problem rapidly and at low computational cost. Theory and application are combined to provide a solid understanding of developing solutions of ray optics problems using COMSOL Multiphysics. September 18, 2020</p> | | |
| 7. | Acoustic Solutions using COMSOL Multiphysics | (2 day course) | \$1,350.00 |
| | <p>Analysis methods for acoustic problems are taught through practical examples for a range of problems of interest to acoustic engineers.</p> <ul style="list-style-type: none"> <li style="display: inline-block; width: 45%;">• March 12 - 13, 2020 <li style="display: inline-block; width: 45%;">• October 15 – 16, 2020 | | |
| 8. | CFD: Single Phase Flow in COMSOL Multiphysics | (2 day course) | \$1,350.00 |
| | <p>Methods for modeling laminar and turbulent flow are taught via practical examples and a theoretical background. This class provides excellent content for all COMSOL Multiphysics users but it particularly useful for attendees with a limited understanding of fluid mechanics.</p> <ul style="list-style-type: none"> <li style="display: inline-block; width: 45%;">• April 21 – 22, 2020 <li style="display: inline-block; width: 45%;">• October 20 -21, 2020 <li style="display: inline-block; width: 45%;">• August 4 – 5, 2020 | | |
| 9. | Heat Transfer Solutions using COMSOL Multiphysics | (2 day course) | \$1,350.00 |
| | <p>Attendees will learn how to develop models that include heat transfer via conduction, convection, and radiation. In addition, the ability to include phase changing materials will be demonstrated. This class contains a wide range of example problems.</p> <ul style="list-style-type: none"> <li style="display: inline-block; width: 45%;">• April 23 - 24, 2020 <li style="display: inline-block; width: 45%;">• October 22 – 23, 2020 | | |
| 10. | Structural Mechanics Solutions using COMSOL Multiphysics | (2 day course) | \$1,350.00 |
| | <p>This course extends from linear elastic analyses with plates and shells to contact analyses with non-linear material models. Static, time-dependent, eigenfrequency, and frequency domain solution methods will be taught in this class.</p> <ul style="list-style-type: none"> <li style="display: inline-block; width: 45%;">• March 10 – 11, 2020 <li style="display: inline-block; width: 45%;">• October 13 – 14, 2020 <li style="display: inline-block; width: 45%;">• June 16 – 17, 2020 | | |
| 11. | Troubleshooting Your COMSOL Multiphysics Models | (1 hour web-based course) | \$49.00 |
| | <p>This course teaches techniques to identify and eliminate errors in analyses. The class is focused on beginner to intermediate users and provides techniques developed by years of experience from advanced users.</p> <ul style="list-style-type: none"> <li style="display: inline-block; width: 45%;">• February 19, 2020 <li style="display: inline-block; width: 45%;">• September 23, 2020 <li style="display: inline-block; width: 45%;">• April 15, 2020 <li style="display: inline-block; width: 45%;">• November 11, 2020 <li style="display: inline-block; width: 45%;">• June 24, 2020 | | |
| 12. | Best Practices in Multiphysics Analysis | (1 hour web-based course) | \$49.00 |
| | <p>This course examines practices that provides useful multiphysics analyses. The class is focused on users of COMSOL Multiphysics who consider themselves less experienced with multiphysics analysis.</p> <ul style="list-style-type: none"> <li style="display: inline-block; width: 45%;">• January 8, 2020 <li style="display: inline-block; width: 45%;">• July 22, 2020 <li style="display: inline-block; width: 45%;">• March 18, 2020 <li style="display: inline-block; width: 45%;">• October 28, 2020 <li style="display: inline-block; width: 45%;">• May 27, 2020 | | |



2020

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December						
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