

Systems Modeling Language (SysML) Training Program for Model-Based Engineering (MBE) and Model-Based Systems Engineering (MBSE)

Georgia Tech and InterCAX jointly offer a SysML training program for professionals wanting to learn the latest about model-based engineering (MBE) in general and model-based systems engineering in particular (MBSE). This comprehensive program covers all four OMG Certified Systems Modeling Professional (OCSMP) certification levels and more. The instructors are subject matter experts who have conducted these short courses for numerous organizations, **training ~3915 professionals** since August 2008. Their distinctions include being involved in OMG SysML™ development from the beginning, being OCSMP exam authors, conducting leading-edge R&D and MBE/MBSE deployment consulting, and serving as leaders in multiple INCOSE & OMG initiatives.

Instructors

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Participant Feedback

"I thoroughly enjoyed the course." — Senior Systems Engineer, Ft Worth TX. *"Fun class – I especially liked the hands-on exercises and [the rover] project."* — Lead Systems Engineer, Pasadena CA. *"I enjoyed the class, and I'm finding application for it immediately here. Good practical stuff!"* — Software Design Engineer, Dayton OH. *"GREAT course!! Learned a lot and had fun."* — Lab Director, Huntsville AL. *"Very informative."* — Test Engineer, Pasadena CA. *"I really enjoyed this course ... you were able to answer all questions very effectively."* — Project Lead, Albuquerque NM.

2016 Offerings: Atlanta, DC/Arlington, at Your Location; via Web
Nov 8-11 On-Demand Contact Us (a popular option) On-Demand

Course Overviews

The following courses focus on OCSMP Levels 1 & 2 concepts and include other items essential for a well-rounded MBE/MBSE practitioner.

SysML 101 – Essentials for Understanding SysML Models (1 day) covers all nine SysML diagram types in a quick and easy-to-learn format. A consistent system modeling example is presented throughout the course to better learn how SysML concepts and diagrams work together. We cover these concepts in a tool-independent manner with a focus on how to interpret SysML models.

Benefits:

- Recognize the various types of SysML diagrams and understand their essential constructs
- Apply this knowledge in your day-to-day work
- Describe how SysML fits with MBE/MBSE & related technologies (CAD/E/M, PLM, DoDAF/UPDM, UML), how it supports systems engineering processes, and what you can do with a SysML model
- Discover the benefits and costs of a SysML-based MBE/MBSE approach
- Create a plan to deploy SysML technology in your organization

(over)

SysML 201 – Hands-On Essentials for Creating SysML Models (2.5 days) is a hands-on course where participants learn to implement SysML concepts using a representative tool. These skills are reinforced by *doing useful things with your SysML models*—not just building them for the sake of documentation. For example, exercises include (i) employing SysML parametrics to perform calculations on system properties and verify requirements, and (ii) utilizing SysML activities to operate a mobile robot during a team-based competition. Participants work through structured tutorial modules in class to jump-start and expand their SysML model creation know-how.

Benefits:

- Create models in a SysML tool that include the diagrams and constructs learned in SysML 101
- Develop SysML activity models that are executable (e.g., to test and operate live systems)
- Construct SysML models that contain calculations and execute parametric simulations
- Verify system requirements (e.g., based on simulation results); auto-generate traceability matrices
- Perform introductory trade studies
- Generate documents automatically from system models
- Describe the benefits and costs of implementing SysML models in a real SysML tool (vs. sketching SysML diagrams in a drawing tool)

Delivery Modes

These courses are offered live in onsite (your site), offsite (our site), and web-based modes.

Your Sites: The courses can be delivered at your sites and tailored to your needs. Contact us for specifics.

Our Sites: These courses are offered in Atlanta and other sites on an open enrollment basis via Georgia Tech’s Professional Education division. Also check out **SysML 105** and **SysML 205**, which are the next steps to reinforce and extend beyond your SysML 101/201 knowledge (and to prepare you for the OCSMP Level 1 & 2 exams respectively). Follow these links for registration, pricing, and other specifics:

- www.pslm.gatech.edu/courses/sysml101
- www.pslm.gatech.edu/courses/sysml201
- www.pslm.gatech.edu/courses/sysml205

Live Web: These courses are also offered in live mode via webmeeting sessions. *New cohorts are forming regularly.* See this link for the scheduled web-based offerings of SysML 105 in particular.

- www.pslm.gatech.edu/courses/sysml105: *Live web sessions (and Atlanta face-to-face)*

Related Research Projects and Applications by Georgia Tech

See www.mbse.gatech.edu for project overviews, publications, prototypes, and other resources.

Related Products & Services by InterCAX

See www.InterCAX.com for information regarding:

- Modeling & simulation tools for SysML & related technologies (CAD/E/M, PLM/PDM, DoDAF/UPDM, UML)
- Tailored tool development and productionization services
- Consulting to help you deploy MBE/MBSE, SysML, and related technologies in your organization (e.g., as done to help multiple organizations start and/or extend their internal MBE/MBSE initiatives)

Related Links

- OMG SysML website – www.omg.sysml.org
- OCSMP Certification – www.omg.org/ocsmc

Also Available

- Additional SysML courses: SysML 301, 305, 401, 405
- MBSE project courses: **SysML 891/892** — *New!*
- Additional OCSMP preparation & practice exams
- Customized courses

Contact us for specifics.

