Systems Modeling Language (SysML) Training
A Quick Start to Model-Based Engineering and Model-Based Systems Engineering (MBE/MBSE)

Georgia Tech and InterCAX jointly offer a SysML quick start 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 since August 2008 training over 465 professionals. 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
Leon McGinnis, PhD
Chris Paredis, PhD
Russell Peak, PhD
Georgia Institute of Technology

Manas Bajaj, PhD
InterCAX LLC

Course Administrator
Russell.Peak@gatech.edu • +1-404-894-7572 • www.pslm.gatech.edu/courses

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.

2011 Offerings: Orlando, DC area, Las Vegas, Atlanta; via Web
Feb 22-25  Apr 5-8  Aug 16-19  Nov 1-4  ongoing

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 102 – 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 jumpstart 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 operate a system)
- 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, offsite, and web-based modes.

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

Our Site: These courses are offered in Atlanta and other sites on an open enrollment basis via Georgia Tech’s Professional Education division. The next offerings are set for 2011. Follow these links for registration and other specifics:
- www.pslm.gatech.edu/courses/sysml101 — 2011 offerings: Orlando, DC, Las Vegas, Atlanta
- www.pslm.gatech.edu/courses/sysml102 — 2011 offerings: Orlando, DC, Las Vegas, Atlanta

Web: SysML 101 & 102 courses are also offered in live mode via webmeeting sessions. New cohorts are forming regularly. Contact us for specifics. NEW in 2011! SysML 105 prepares you for the OCSMP Level 1 exam. SysML 105 is also great to reinforce and extend your SysML 101 knowledge.
- www.pslm.gatech.edu/courses/sysml105 — 2011 offerings: Live web sessions (starting in March)

Related Products & Services by InterCAX
See www.InterCAX.com for information regarding:
- Modeling & simulation tools for SysML & related technologies (CAD/E/M, PLM, DoDAF/UPDM, UML)
- Tailored tool development and productionization services
- Consulting to help you deploy MBE/MBSE, SysML, and related technologies in your organization

Related Research Projects and Applications by Georgia Tech
See www.pslm.gatech.edu for project overviews, publications, prototypes, and other resources.

Related Links
- OMG SysML website – www.omgsysml.org
- OCSMP Certification – www.omg.org/ocsmp

Coming Soon
- Additional SysML courses
- Additional OCSMP preparation & practice exams
Contact us for specifics.