SysML Model User Exam Overview

Exam Series Code	OMG-OCSMP-MU100
Exam Duration	90 minutes in English-speaking countries and 120 minutes in all others.
Exam Fee	US$250 (or local equivalent) in English-speaking countries and US$260 (or local equivalent) in all others.
Exam Type	Multiple choice (text and SysML diagrams)
Exam Pass Score	>=56 of 90 questions answered correctly (>=62%)
Exam Prerequisite(s)	None
Exam Specifications	This exam is based on **System Modeling Language (SysML) v1.2**. Use it solely as a reference. If interested, you can only view the differences between SysML v1.2 and **v1.6**.
Recommended Exam Study Guides	*A Practical Guide to SysML: The Systems Modeling Language, 3rd Edition* (Friedenthal, Moore and Steiner): Chapters 3 (Getting Started with SysML) and 4 (An Automobile Example Using the SysML Basic Feature Set). All authors contributed to the SysML specification.
	Systems Engineering with SysML/UML: Modeling, Analysis, Design (Weilkiens): The author contributed to the SysML specification.
	SysML Distilled: A Brief Guide to the Systems Modeling Language (Delligatti)
	SysML for Systems Engineering (Perry): The author contributed to the SysML specification.
Additional Reading	*The OMG SysML Tutorial*
	Simulation-Based Design Using SysML: Part 1: A Parametrics Primer (Peak): Four authors contributed to generating this exam.
	Hybrid SUV Example (SysML v1.2)
	OMG SysML Website
	SysML Notations and Conventions
	Model-Based Systems Engineering (MBSE) with the Systems Modeling Language (SysML) (Wolfrom)
Exam Training Options (not required)	**Delligatti Associates, LLC** (USA: **5-day course**)
	Intercax with Georgia Institute of Technology (**USA**)
	oose (Germany: **1-day course** [**English**] and **5-day course** [**German**])
	Mithun (Netherlands: **4-day course**)
Exam Voucher Program	Visit the **Pearson VUE Voucher Store** for a 10% discount/10 vouchers or view our **Voucher Program** for greater discounts. Vouchers expire one year after purchase and can be transferred. **Contact Pearson VUE** to honor a previously purchased voucher price.
Testing Accommodations	For a hearing, learning, physical or visual disability accommodation, please contact **certification@omg.org** for instructions on testing accommodations before registering for an exam.
Exam Registration	**Pearson VUE**: create an account, locate a test center, view available tests, (re)schedule a test (online or at a test center), cancel your exam (contact Pearson VUE >=24 hours prior to exam for a full refund or you forfeit the full exam price), view exam scores and **Contact Pearson VUE** (for any technical issues).
Online Exam Check-In & Requirements	Visit **Pearson VUE Online Proctoring** for detailed info. Log in at least 30 minutes early (online verification may take 15-20 minutes). Late arrivals will not be allowed to take the exam.
Test Center Check-In & Requirements	Arrive at least 30 minutes early. Late arrivals will not be allowed to take the exam. Bring two forms of ID (at least one with photo and both with signature): alien registration card, bank card, credit card, employee badge, government issued, green card, military, passport, school and state ID. Do not bring any items (personal or otherwise) other than the two forms of ID to a test center. **Pearson VUE Test Center Coronavirus Guidelines**
Exam Languages	This exam is offered in English. Individuals cannot use a translation app during the exam.

Review Your Answers	Before completing an exam individuals will be presented with a screen to review answers to all questions.
Exam Score Reports	Pass or fail, individuals will be provided with a score report on computer screen immediately following the exam whether on-site at test center or online. A hardcopy will be provided before an individual leaves a test center with their score in each major section. If an individual fails, they can review those sections where they scored poorly to assist them when they decide to retake the exam. Individuals can also review their exam score reports via their **Pearson VUE account**.
Certification Digital Badges	Those who pass their exam will immediately receive an email from **Credly** (check Junk folder) to claim their verifiable digital badge. Credly provides certified professionals with the option to share their certification credentials with others via the Credly Network, social media, .pdf or hardcopy certificate, and other avenues.
Certification Expiration	Certifications expire 5 years from the date the exam was passed. The same or a higher-level certification must be taken prior to the previous certification's expiration date to extend a certification.
Retaking the Exam	Contact **certification@omg.org** to request a 30% discounted exam retake voucher.
Still Have Questions?	**certification@omg.org**

General Areas Tested in the SysML Model User Exam

MODELS OF REQUIREMENTS	
Interpreting Requirements on Requirement Diagrams The concept of "requirement", key relationships including derive, verify, satisfy, refine, trace, containment as well as the Requirement Diagram description, purpose and benefits.	7%
Interpreting System Functionality on Use Case Diagrams Use Case Diagram description, purpose and benefits, use case structure encompassing use case, actor and subject, as well as basic relationships including association, include, extend and generalization.	7%
MODELS OF SYSTEM STRUCTURE	
Interpreting Model Organization on Package Diagrams Package Diagram description, purpose, and benefits, aspects of packages including ownership of elements and defining a namespace, relationships including containment and dependency, and concepts of view and viewpoint.	7%
Interpreting System Structure on Block Diagrams Block definition and description, including definition vs. usage, valuetype (with units), block features including value properties, parts, references and operations. Block Definition Diagram description, purpose, and benefits, compartments, relationships between blocks including specialization and associations (including composite but not shared aggregation), multiplicities. Internal Block Diagram description, purpose, and benefits, enclosing block, flow ports and standard ports, connectors and item flows as well as representation of parts.	22%
Interpreting System Constraints on Block Definition Diagrams and Parametric Diagrams Interpreting constraint blocks on Block Definition Diagrams, Parametric Diagram description, purpose and benefits, constraint properties, parameters and expressions, connecting constraint properties and value properties with binding connectors.	7%
MODELS OF SYSTEM BEHAVIOR	
Interpreting Flow-Based Behavior on Activity Diagrams Activity Diagram description, purpose, and benefits, I/O flow including object flow, parameters, parameter nodes and pins, control flow including control nodes, activity partitions (swimlanes) and actions including decomposition of activities using call behavior action, send signal action, as well as accept event action.	13%
Interpreting Message-Based Behavior on Sequence Diagrams Sequence Diagram description, purpose and benefits, lifelines, asynchronous and synchronous messages, and interaction references (to elements outside the diagram).	7%
Interpreting Event-Based Behavior on State Machine Diagrams	10%

State Machine Diagram description, purpose, and benefits, states and regions including state, regions, initial state and final state, transitions including trigger by time and signal events, guard and action (i.e., effect), as well as behaviors including entry, exit and do.	
CROSS-CUTTING CONSTRUCTS	
Interpreting Allocations Across Multiple Diagram Types; Other Topics Allocation description, purpose and usage, AllocatedFrom and AllocatedTo, representation including callouts, compartments, allocate activity partitions, and tables, special notations for comment, rationale, problem and constraint. Some concepts relating to diagrams: diagram frames, ports, parameters and anchors on diagram frames, diagram header and diagram description as well as stereotype.	20%
Total	**100%**