SysML Model Builder Fundamental Exam Overview

Exam Series Code	OMG-OCSMP-MBF200
Exam Duration	105 minutes in English-speaking countries and 135 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	>=60 of 90 questions answered correctly (>=67%)
Exam Prerequisite(s)	Passing score on the OCSMP Model User Exam.
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.
	MBSE Practices in Telescope Modeling **(Weilkiens)**
	Hybrid SUV Example (SysML v1.2)
	OMG SysML Website
	Cookbook for MBSE with SysML: Use solely as a reference.
	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)
	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 Builder Fundamental Exam

THE MODEL	
Model Concepts What is a model? Relationship between model and diagram.	10%
Organizing a System Model Using the Basic Set of SysML Constructs Building the model hierarchy. Building a package diagram using the basic set of SysML constructs	9%
MODELING REQUIREMENTS	
Building a Requirements Model Using the Basic Set of SysML Constructs How system requirements are captured in the model. Building a requirements diagram using the basic set of SysML constructs. Requirements relationships to other model elements. Representing requirements in tables and matrixes. Building a use case model using the basic set of SysML constructs.	16%
MODELING STRUCTURE AND BEHAVIOR	
Building a Structural Model Using the Basic Set of SysML Constructs How system structure is captured in the model. Building the block definition diagram. Building the internal block diagram.	22%
Building a Parametric Model Using the Basic Set of SysML Constructs How system analyses are captured using constraints in the model. Defining constraints on a block definition diagram. Building the parametric diagram using the basic set of SysML constructs.	10%
Building a Behavioral Model Using the Basic Set of SysML Constructs How system behavior is captured in the model. Building an activity diagram using the basic set of SysML constructs. Building a sequence diagram using the basic set of SysML constructs. Building a state machine diagram using the basic set of SysML constructs.	24%
CAPABILITIES AND FEATURES	

Allocation Relationships Allocation Relationships	4%
Customizing a model When to use a stereotype. Applying a stereotype (but not creation of profiles or stereotypes).	4%
Total	**100%**