# SYSML MODEL BUILDER
## FUNDAMENTAL EXAM

1. Determine if you’re eligible for an academic, INCOSE, member, military, or retake [Discount](#).
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### Accommodations
For learning or physical disability exam accommodations, please contact [certification@omg.org](mailto:certification@omg.org).

### Cancellations/Refunds
An exam may be cancelled >24 hours prior to its scheduled date via [Pearson VUE](#) for a full refund or the exam price will be forfeited.

### Duration
105 mins in native English-speaking countries. 135 mins in all others. **Note:** Extra time confirmed following exam order completion.

### Fee
US$350 + taxes (regional currency equivalent and taxes)

### Format
Multiple choice (text and images)

### Languages
English & [Japanese](#). Use of translation apps during the exam is prohibited.

### Passing Score
>=60/90 correct answers or >=67% correct answers

### Prerequisites
Passing score on SysML Model User exam.

### Technical Issues
Contact [Pearson VUE Customer Service](#). Make sure to perform a [System Test](#) on your computer before scheduling an online exam.

### Validity
Certifications expire 5 years after exam date. Take the same or higher level exam to extend certification validity.

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*www.omg.org/ocsmp*  *certification@omg.org*
STANDARD COVERED

- System Modeling Language (SysML) v1.2

RECOMMENDED STUDY MATERIALS

- SysML Distilled: A Brief Guide to the Systems Modeling Language (Delligatti)
- SysML for Systems Engineering (Perry): "Authors contributed to the standard.
- The OMG SysML Tutorial
- Simulation-Based Design Using SysML: Part 1: A Parametrics Primer (Peak)
- MBSE Practices in Telescope Modeling (Weilkiens)
- Hybrid SUV Example (SysML v1.2)
- Cookbook for MBSE with SysML
- SysML Notations and Conventions
- Model-Based Systems Engineering (MBSE) with the Systems Modeling Language (SysML) (Wolfrom)
<table>
<thead>
<tr>
<th>Percentage</th>
<th>Section Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>57%</td>
<td><strong>MODELING STRUCTURE AND BEHAVIOR</strong></td>
<td>Building a Behavioral Model Using the Basic Set of SysML Constructs (24%): 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. Building a Structural Model Using the Basic Set of SysML Constructs (23%): How system structure is captured in the model. Building the block definition diagram. Building the internal block diagram. Building a Parametric Model Using the Basic Set of SysML Constructs (10%): 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.</td>
</tr>
<tr>
<td>19%</td>
<td><strong>THE MODEL</strong></td>
<td>Model Concepts (10%): What is a model? Relationship between model and diagram. Organizing a System Model Using the Basic Set of SysML Constructs (9%): Building the model hierarchy. Building a package diagram using the basic set of SysML constructs.</td>
</tr>
<tr>
<td>16%</td>
<td><strong>MODELING REQUIREMENTS</strong></td>
<td>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.</td>
</tr>
<tr>
<td>8%</td>
<td><strong>CAPABILITIES AND FEATURES</strong></td>
<td>Allocation Relationships (4%): Allocation Relationships Customizing a model (4%): Applying a stereotype (but not creation of profiles or stereotypes).</td>
</tr>
</tbody>
</table>