

SMS_ThinkTank Leadership Systems Modeling & Simulation Education & Certificate Program

Surviving Systems Modeling & Simulation Complexities

SMS_ThinkTank is internationally known for their expertise in the Systems Modeling and Simulation disciplines including the Digital Twin, Industry 4.0 and related simulation, engineering and business domains to provide the most comprehensive non-biased education offering for today's business and engineering professionals tasked with establishing model-based approaches in support of the larger digital transformation initiatives of their organization.

SMS_ThinkTank's leadership is comprised of a set of well defined, assessment-based education and certificate programs, short courses, and webinars. The *SMS Education and Certificate Program* is delivered through a series of education modules. The delivery of the program's content is tailored, within the given time restrictions, to address any industry-specific issues of interest to the participants.

These education and certificate programs are available to industrial companies who are considering, evaluating, implementing, and/or enhancing their systems modeling and simulation capabilities, as well as to software and service providers. These programs are also offered a number of different configurations designed to address the specific needs of various communities.

The education modules described herein leverage a common systems engineering and product data model (Model-centric Systems Engineering) that encompasses benefits, requirements, platform, program, project, system definition, product structure, lifecycle, and configuration-management capabilities. These are key enablers to achieve higher systems modeling maturity levels and, in turn, help a company reach and maintain a highly competitive position within the industries it serves. Innovation leaders realize that accurate and accessible data is the foundation for insight and inspiration. They also realize that it is critical to recognize that the surrounding ecosystem with its culture and behaviors must be brought into play. This is foundational to defining and achieving sustainable innovation.

Systems Modeling & Simulation Education & Certificate Program

SMS_ThinkTank's Systems Modeling & Simulation Education and Certificate Program, leverages SMS_ThinkTank's assessment-based educational framework and satisfies the Systems Modeling and Simulation education requirements from small to large enterprises. The public version of the program provides primary holistic systems modeling and simulation education to industrial companies, as well as solution providers and their employees who are responsible for marketing, developing, selling, and delivering virtual simulation and data management solutions, and associated implementation services as well as business and engineering professionals tasked with establishing model-based approaches in support of the larger digital transformation initiatives of their organization. The private version of the program provides organizations with an exclusively presented series of educational

modules that may be tailored to their specific industry and/or topical needs. In addition, the private version allows discussion, assignments and exercises take place in a confidential environment.

SMS Education and Certificate Offering

The SMS Education and Certificate Program offering is comprised of various courses that have been configured for executives, managers, and practitioners. Successful completion of all modules for the various courses is required to achieve the *Certificate* completion for each specific track. The following **Courses** are available:

- Systems Modeling and Simulation *Basics*
- Systems Modeling and Simulation *Core*
- Systems Modeling and Simulation *Enhanced*

The available **Tracks** are:

- Systems Modeling and Simulation Foundation for *Executives*
- Systems Modeling and Simulation Foundation for *Managers*
- Systems Modeling and Simulation Foundation for *Practitioners*

The configuration for each track and their related courses is outlined in Table 1.

For additional information please contact us at: info@smsthinktank.com .

Track		SMS Foundation for Executives			SMS Foundation for Managers			SMS Foundation for Practitioners		
Course		SMS Basics	SMS Core	SMS Enhanced	SMS Basics	SMS Core	SMS Enhanced	SMS Basics	SMS Core	SMS Enhanced
Modules										
1	SMS - An Introduction	X			X			X		
2	The Value of SMS	X			X			X		
3	Challenges to Deploy SMS - A Business Perspective	X			X			X		
4	Essentials to Deploy SMS - An Operational Perspective				X			X		
5	The Architecture of SMS							X		
6	MBSE - A High-Level View for Newcomers		X							
7	How to explain MBSE without using the Traditional "V Model"					X				
8	Model-Based Definitions and their Role within Engineering					X			X	
9	The Systems Engineering "V"						X		X	
10	The Role of Requirements								X	
11	Writing good Requirements								X	
12	The Role of Taxonomy								X	
13	MBSE - The Role of existing and emerging Standards						X			X
14	MBSE - Challenges for Management					X				
15	MBSE - Deployment Challenges					X				X
16	Digital Twin - Its Role within a Business Environment			X			X			
17	Challenges Implementing Digital Twin Capabilities and Methodologies									X
18	The Digital Twin - Its Maturity Levels						X			X
Total number of modules per course		3	1	1	4	4	4	5	5	4

Table 1: Education and Certificate Matrix