



The INCOSE Systems Engineering Handbook Learning Objectives (LOs) became effective for the knowledge exam on **1 August 2023**.

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As of **15 March 2025**, the knowledge exam transitioned to focus solely on SEH5E content. Academic Equivalency providers (universities) applying or renewing are evaluated based on this list of LOs.



SYSTEMS ENGINEERING HANDBOOK A guide for system Life cycle processes and activities



Council on Systems Engineering

WILEY

INCOSE

## For more information, visit incose.org/sehandbook

## INCOSE Learning Objectives

INCOSE Systems Engineering Handbook

	5th Edition
<ul> <li>Systems Engineering and Life Cycle Overview</li> <li>Identify systems engineering definitions, principles, and concepts</li> <li>Define awareness level concepts of systems thinking</li> </ul>	Part 1
<ul> <li>Lifecycle Models and Concepts</li> <li>Define awareness level concepts for lifecycles</li> <li>Define awareness level concepts of acquisition and supply</li> <li>Define awareness level concepts of business and enterprise integration (Includes Infrastructure, Portfolio, Human Resources, Knowledge, Quality Management, and Quality Assurance)</li> </ul>	Part 2
<ul> <li><b>Technical Management Processes</b></li> <li>Define awareness level concepts of planning</li> <li>Define awareness level concepts of monitoring and control</li> <li>Define awareness level concepts of decision management</li> <li>Define awareness level concepts of risk and opportunity management</li> <li>Define awareness level concepts of configuration management</li> <li>Define awareness level concepts of information management</li> </ul>	Part 2
<ul> <li><b>Technical Processes</b></li> <li>Define awareness level concepts of requirements definition</li> <li>Define awareness level concepts of architecture definition</li> <li>Define awareness level concepts of design for systems realization</li> <li>Define awareness level concepts of modeling and analysis</li> <li>Define awareness level concepts of integration</li> <li>Define awareness level concepts for verification</li> <li>Define awareness level concepts for transition</li> <li>Define awareness level concepts for validation</li> <li>Define awareness level concepts for operation and support</li> </ul>	Part 2
<ul> <li>Methods and Analysis</li> <li>Define awareness level concepts of design for quality characteristics</li> <li>Define awareness level concepts for interfaces</li> </ul>	Part 3
<ul> <li>Application Considerations</li> <li>Define how systems engineering is applied (Includes MBSE, Agile, Lean, PLE, System Types, Domains)</li> </ul>	Part 4
<ul><li>Systems of Systems</li><li>Define the complexities of a System of Systems</li></ul>	Part 4
<ul> <li>Systems Engineering in Practice</li> <li>Identify aspects of systems engineering in practice</li> </ul>	Part 5