Certified Healthcare Simulation Operations Specialist
Examination Blueprint, 2018 Version

Examination Blueprint
The content of the CHSOS examination is based on the blueprint. This blueprint was completed as a result of the international Practice Analysis of healthcare simulation operations that occurred between July 2017 and May 2018. The results of this Practice Analysis are contained in this document that describes the knowledge, skills, and abilities (KSAs) that are expected of an individual functioning in this role.

As candidates for the CHSOS prepare to take the examination, the following should be considered on how to use the examination blueprint:

- This document includes the high-level examination blueprint which shows the domains and the percentage of the exam for each domain, and also the detailed examination blueprint which lists the KSAs within each domain.
- Every question on the examination must map back to at least one of the KSAs included in the detailed examination blueprint. Any items that cannot map back to at least one KSA will not be on the examination.
- The KSAs listed represent the breadth of work in the healthcare simulation operations specialist role around the world. Individual job descriptions may have significant variance, both in breadth and in depth of function as required by an individual simulation program.
- The KSAs, and thus the examinations, are written at the two-year competency level.
- The verb for each KSA has been carefully chosen using published verbiage in Bloom’s Taxonomy. This should indicate to the candidate the expected level of function for each individual KSA, and thus the scope of knowledge that could be expected on the exam.
- Questions on the examinations are typically written at the application and/or analysis level. Very few questions are simple recall level questions (e.g. definitions).

Certified Healthcare Simulation Operations Specialist High-Level Examination Blueprint

<table>
<thead>
<tr>
<th>Domain</th>
<th>Weight</th>
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<tbody>
<tr>
<td>I: Concepts in Healthcare as Applied to Simulation</td>
<td>14%</td>
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<tr>
<td>II: Simulation Technology Operations</td>
<td>33%</td>
</tr>
<tr>
<td>III: Healthcare Simulation Practices/Principles/Procedures</td>
<td>27%</td>
</tr>
<tr>
<td>IV: Professional Role: Behavior and Capabilities</td>
<td>11%</td>
</tr>
<tr>
<td>V: Concepts in Instructional Design as Applied to Simulation</td>
<td>15%</td>
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Certified Healthcare Simulation Operations Specialist Detailed Examination Blueprint

DOMAIN I: CONCEPTS IN HEALTHCARE AS APPLIED TO SIMULATION (14%)
A. Identify the presentation of general medical conditions, injuries, and diseases
B. Recognize basic anatomical and physiological systems
C. Identify general healthcare procedures
D. Identify common medication administration practices
E. Distinguish among healthcare equipment, supplies, and environments
F. Differentiate among the roles of healthcare professionals

DOMAIN II: SIMULATION TECHNOLOGY OPERATIONS (33%)
A. Functional knowledge and capabilities
   1. Differentiate among operating systems and associated compatibilities (e.g. Windows, Mac, Linux, Android)
   2. Apply functional knowledge and terminology for the utilization of network hardware
   3. Apply functional knowledge and terminology for the utilization of A/V equipment and software
   4. Utilize web-based (browser-based) applications and information systems
   5. Collaborate with the team to manage technology systems’ security (e.g. physical, network, data)
   6. Differentiate among the capabilities of simulation modalities
   7. Describe the functionalities of equipment used in simulation
      a. AV equipment
      b. Healthcare equipment
      c. Simulation specific equipment
   8. Apply data asset management strategies
   9. Apply knowledge required to function in different simulation spaces (e.g. equipment limitations, connectivity, air supply)
   10. Demonstrate knowledge of cable connectivity and applications (e.g. ports, inputs/outputs, adapters, dongles)
   11. Demonstrate knowledge of wireless connectivity and applications (e.g. routers, broadcasters)
B. Configure, setup, and operate Simulation Technology
   1. AV equipment
   2. Healthcare equipment
   3. Simulation specific equipment
C. Problem solving, corrective action, and maintenance
   1. Apply principles and procedures to identify technical problems/errors and initiate corrective action
   2. Apply principles and procedures to create policy and perform preventive/regular maintenance
DOMAIN III: HEALTHCARE SIMULATION PRACTICES/PRINCIPLES/PROCEDURES (27%)
A. Manage reference materials, equipment specifications, maintenance agreements, and warranties
B. Collaborate to support program sustainability and/or growth (e.g. strategic plan, simulator purchase, technology services)
C. Facilitate simulation equipment training
D. Utilize resources effectively and efficiently (e.g. feasible use of money, people, and space)
E. Communicate and practice safe/recommended use of simulation equipment and environment
F. Collaborate with the simulation team to manage schedule requests, supply needs, and participant feedback
G. Utilize safe removal of potentially hazardous materials and supplies
H. Collaborate with the simulation team to collect and analyze utilization data
I. Utilize principles of realism as it applies to simulation activities
J. Recognize how changing aspects of a simulation activity impact reliability and validity
K. Recognize concepts that impact simulation (e.g. human factors, patient safety, modeling)
L. Recognize the concepts of managing risks
M. Implement moulage principles and applications for various materials and settings used in simulation
N. Provide orientation for stakeholders to simulation principles, equipment, and spaces
O. Support the public relations activities of the simulation program (e.g. tours, community outreach)

DOMAIN IV: PROFESSIONAL ROLE: BEHAVIOR AND CAPABILITIES (11%)
A. Utilize effective communication strategies
B. Recognize ethical principles and professional responsibilities as they apply to simulation (e.g. integrity, respect, do no harm)
C. Demonstrate characteristics of leadership in simulation practice
D. Recognize opportunities for professional development (e.g. conferences, webinars)
E. Identify trends in simulation and technology practices
F. Recognize credible resources (e.g. peer-reviewed journals, product manuals)
G. Assist in research and innovation activities

DOMAIN V: CONCEPTS IN INSTRUCTIONAL DESIGN AS APPLIED TO SIMULATION (15%)
A. Recognize principles of instructional design
B. Collaborate in the following instructional design elements for simulation activities
   1. Needs assessment
   2. Goals and objectives
   3. Assessment methods and evaluation tools
   4. Logistics
   5. Modalities
   6. Determine equipment and supplies
7. Case/scenario design
8. Prebrief/brief, debrief, and participant evaluations
9. Pilot test (dress rehearsal, field test, run-through)
10. Implementation to participants
11. Evaluation and improvement

C. Recognize principles of interprofessional education
D. Recognize when to include subject matter experts