EXAMINATION BLUEPRINT CHANGES

Every five years, or more often if necessary, BCSP revalidates all certification examinations. During the revalidation process a new blueprint is created that reflects the consensus of the profession as to the key elements a minimally qualified candidate must possess to be deemed competent.

The Certified Safety Professional® (CSP®) examination began its revalidation process in 2024 and a new blueprint was generated. The following is a synopsis of the changes:

- The new CSP11 blueprint has a slightly different look than the current CSP10 blueprint. The new blueprint has a heavier focus on skill-based statements, each worded clearly to assist the candidate with an understanding of the depth of knowledge required for each concept. However, the majority of concepts from the CSP10 blueprint have carried over to CSP11.
- The science and math principles that appeared in Domain 1 (CSP10) are spread throughout the new blueprint in their content-related domains. However, the basic mathematical concepts have been removed in favor of more focused SH&E calculations.
- The content presented in Domain 4 (CSP10), Advanced Application of Key Safety Concepts, has been distributed into other domains of the CSP 11 blueprint, primarily Domains 1 and 2.
- Emergency Preparedness, Fire Prevention, and Security, Domain 5 of the CSP10 blueprint, is Emergency Management, Domain 4, in CSP11. Fire prevention and security concepts are still presented in this domain.
- Domain 6, titled Occupational Health and Ergonomics in CSP 10, is presented as Occupational Health and Applied Science in CSP11. In addition to the concepts previously presented in this domain, the chemistry and physics concepts from Domain 1 (CSP10) have been moved to this domain.
- Domain 7 of CSP10, Environmental Management Systems, is Environmental Management, Domain 5, in CSP11. In this domain the concepts of REACH and RoHS from CSP10 have been removed, and knowledge of the impact of environmental issues has been added.
- Domain 8 of CSP10, Training/Education, is simply Training, Domain 7, in CSP11. The use of the Continuous Improvement model and the understanding of adult learning principles were added to this domain.

As would be expected, the percentage weights of the domains have also changed. The Risk Management, Emergency Management, Environmental Management, Occupational Health and Applied Science, and Training domains all saw small decreases in their domain weights. Whereas Advanced Application of Safety Principles and Program Management saw increases, with these two domains now representing 50% of the examination content.

The new CSP blueprint will go into effect on August 1, 2025.

BCSP Board of Certified® Safety Professionals

CSP® EXAMINATION BLUEPRINT
CSP11

Domain 1
Advanced Application of Safety Principles • 25%

1. Describe the principles of minimizing hazards using Prevention-Through-Design (e.g., avoidance, elimination, substitution, safety design criteria for workplace facilities, machines, and practices)
2. Apply the principles of process safety (e.g., pressure relief systems, chemical compatibility, management of change, materials of construction, process flow diagrams)
3. Evaluate common workplace hazards (e.g., electrical, falls, confined spaces, lockout/tagout, working around water, caught in, struck by, excavation)
4. Evaluate facility life safety features (e.g., public space safety, floor loading, occupancy loads)
5. Describe fleet safety principles (e.g., driver and equipment safety, maintenance, surveillance equipment, GPS monitoring, telematics, hybrid vehicles, fuel systems, driving under the influence, fatigue)
6. Evaluate materials handling methods and controls (e.g., forklifts, aerial lifts, and other powered industrial trucks; cranes, hand trucks, hoists, rigging, manual handling, drones)
7. Evaluate the use of tools, machines, and equipment (e.g., hand tools, power tools, ladders, grinders, hydraulics, robotics)

Domain 2
Program Management • 25%

1. Compare performance against established benchmarks (e.g., gap analysis)
2. Analyze performance standards to determine plan of action
3. Determine how to measure, analyze, and improve EHS culture
4. Determine appropriate incident investigation techniques (root causes) and apply corrective actions
5. Describe the Management of Change process (prior, during, after)
6. Describe system safety analysis techniques (e.g., fault tree analysis, failure modes and effects analysis [FMEA], Safety Case approach, risk summation)
7. Evaluate leading and lagging indicators
8. Recognize safety, health, and environmental management and audit systems (e.g., ISO 14000 series, 45001, 19011, ANSI Z10)
9. Describe required components for plans, systems, and policies (e.g., safety, health, and environmental regulations and standards)
10. Utilize document retention or management principles (e.g., incident investigation, training records, exposure records, maintenance records, environmental management system, audit results, privacy, trade secrets, personal information)
11. Apply budgeting, finance, and economic analysis techniques and principles (e.g., timelines, budget development, resourcing, return on investment, cost/benefit analysis, role in procurement process)
12. Differentiate management leadership techniques (e.g., management theories, leadership theories, motivation, discipline, authority, responsibility, accountability, communication styles)
13. Apply project management principles and techniques (e.g., RACI charts, project timelines)
14. Analyze and/or interpret data (e.g., exposure, release concentrations, sampling data, mean, median, mode, confidence intervals, probabilities, Pareto analysis)

Domain 3
Risk Management • 15%

1. Apply general principles of the safety risk evaluation process (i.e., identifying, analyzing, evaluating, monitoring, and communicating risk affecting an organization)
2. Apply risk management strategies to identify and mitigate EHS hazards (e.g., risk analysis, job hazard analysis, process hazard analysis, hierarchy of controls)
3. Differentiate financial risk mitigation strategies as they relate to risk avoidance, risk retention, risk sharing, risk transfer, loss prevention and reduction
4. Apply risk analysis process of identifying, ranking, and monitoring (e.g., disasters/emergency preparedness, fire prevention, occupational health, hazardous materials management/environmental compliance)

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Domain 4
Emergency Management • 9%

1. Create, employ, and maintain an Emergency Response Plan (e.g., fire, severe weather, nuclear incidents, natural disasters, terrorist attacks, chemical spills, utilities systems, cyber security)
2. Describe the elements in disaster response and recovery (e.g., incident command, business continuity, contingency plans)
3. Identify key components of fire prevention, protection, and suppression systems
4. Prepare procedures for the safe transportation and security of hazardous materials
5. Implement a workplace violence prevention program

Domain 5
Environmental Management • 6%

1. Describe environmental protection and pollution prevention programs (e.g., spill containment, abatement, best practices)
2. Identify procedures used to manage hazardous materials (e.g., GHS classification system, storage and handling, policy, security, hazardous waste storage and disposal)
3. Identify procedures used to manage waste (e.g., universal, recycling, spill clean-up, labeling, remediation)
4. Determine sustainability principles and practices (e.g., supply chain; reduce, reuse, recycle)
5. Describe the impact of environmental issues (e.g., aging infrastructure, asbestos, air pollution, climate change, environmental, social, and governance)

Domain 6
Occupational Health and Applied Science • 10%

1. Anticipate, recognize, evaluate, and control occupational exposures by implementing techniques for measurement, sampling, and analysis (e.g., hazardous chemicals, SDS, radiation, noise, biological hazards, heat/cold, indoor air quality, ventilation, nanoparticles, combustible dust, heat systems, high pressure, silica, powder and spray applications, blasting, molten metals, hot work, cold and heat stress, laser)
2. Understand principles of public health as applicable (i.e., fundamentals of epidemiology, infectious disease, risk factors, statistics to interpret data)
3. Apply toxicology principles to create exposure control plans and develop risk mitigation plans (e.g., using sampling equipment, symptoms of an exposure, LD50, LC50, mutagens, carcinogens, teratogens, ototoxins)
4. Evaluate principles related to ergonomics and human factors (e.g., visual acuity, body mechanics, lifting, vibration, anthropometrics, fatigue management)
5. Apply chemistry principles to calculate required containment volumes and hazardous materials storage requirements
6. Apply core concepts in physics (e.g., forms of energy, weights, forces, stresses)

Domain 7
Training • 10%

1. Describe the needs assessment process to determine worker training, competencies, and qualifications
2. Develop training programs with training materials to address various learning styles (e.g., presentation methods and tools)
3. Describe how to implement training programs utilizing the Continuous Improvement model
4. Determine the effectiveness of training programs (e.g., surveys, on-the-job compliance, feedback, assessments, demonstrations, quizzes)
5. Demonstrate working knowledge of education and training methods and techniques (e.g., classroom, online, simulation, computer-based, Artificial Intelligence, coaching, on-the-job training)
6. Understand adult learning principles (e.g., visual, auditory, reading and writing, kinesthetic)

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