

## CHST EXAMINATION BLUEPRINT

The CHST examination blueprint is based on what construction safety and health practitioners do in practice. The chart below provides the details. The top levels, called domains, represent major functions that construction safety and health practitioners perform. Within the domains are tasks. Most of the tasks have lists of knowledge and skills required to carry out this task.

<b>DOMAIN 1</b> <b>Program Management • 29%</b>	
<b>Task 1</b> Assess the scope of work with the construction project management team by reviewing contract documents in order to ensure the safety application is consistent with contract specifications and to support the development of the site-specific safety plan.	
<b>Knowledge</b> 1. General contract requirements 2. Construction means and methods 3. Applicable regulations, consensus codes, best practices, and local codes 4. Site-specific safety planning 5. Construction drawings	<b>Skills</b> 1. Accessing applicable documents 2. Reviewing applicable documents 3. Interpreting applicable documents 4. Reading construction drawings
<b>Task 2</b> Participate in the development of a site-specific safety plan by detailing hazards and corrective actions in order to ensure that foreseeable hazards are addressed.	
<b>Knowledge</b> 1. Construction means and methods 2. Hazards associated with falls, struck by, electricity, caught between/crushing 3. Hazard recognition strategies 4. Applicable regulations, consensus codes, best practices, and local codes 5. Hazard communication 6. Components of emergency action plans 7. Crisis management 8. Medical/first aid procedures 9. Bloodborne pathogens 10. Relevant corrective actions and best practices 11. Security requirements and best practices	<b>Skills</b> 1. Applying regulations 2. Evaluating construction means and methods 3. Communicating effectively in speech and writing 4. Planning for emergencies 5. Documenting identified hazards
<b>Task 3</b> Establish expectations for compliance with the site-specific safety plan with the contractors, employees, and other jobsite personnel using appropriate communication procedures in order to prevent accidents.	
<b>Knowledge</b> 1. Communication practices 2. Safety priorities 3. Coordination strategies for activities 4. Construction means and methods 5. Applicable regulations, consensus codes, best practices, and local codes 6. Disciplinary procedures	<b>Skills</b> 1. Communicating effectively in speech and writing 2. Coordinating activities 3. Setting safety priorities 4. Applying regulations and best practices
<b>Task 4</b> Verify that the job safety analyses adhere to construction safety standards in cooperation with contractors, employees, and other jobsite personnel in order to ensure that foreseeable hazards have been identified and addressed.	
<b>Knowledge</b> 1. Hazard recognition and abatement strategies 2. Hazards associated with falls, struck by, electricity, caught between/crushing 3. Construction means and methods 4. Applicable regulations, consensus codes, best practices, and local codes 5. Engineering and administrative controls 6. Requirements and limitations of personal protective equipment	<b>Skills</b> 1. Recognizing hazards 2. Thinking critically 3. Developing job safety analyses 4. Eliciting information from key personnel 5. Communicating effectively in speech and writing

<p><b>Task 5</b></p> <p>Provide technical guidance to jobsite personnel by maintaining a comprehensive knowledge of codes, standards, and best practices and informing jobsite personnel of regulatory changes as they develop in order to maintain a safe and healthful work environment.</p>	
<p style="text-align: center;"><b>Knowledge</b></p> <ol style="list-style-type: none"> <li>1. Applicable regulations, consensus codes, best practices, and local codes</li> <li>2. Record keeping requirements</li> <li>3. Substance abuse programs</li> <li>4. Requirements and limitations of personal protective equipment</li> <li>5. Communication practices (e.g., vehicle to disseminate information)</li> <li>6. Security requirements and best practices</li> </ol>	<p style="text-align: center;"><b>Skills</b></p> <ol style="list-style-type: none"> <li>1. Communicating effectively in speech and writing</li> <li>2. Using email</li> <li>3. Using information technology systems</li> <li>4. Accessing current information (e.g., regulations)</li> </ol>
<p><b>Task 6</b></p> <p>Identify methods for addressing unanticipated hazards (e.g., resulting from change orders, weather, and/or schedule) using professional knowledge and judgment in order to prevent loss and to modify the site-specific safety plan.</p>	
<p style="text-align: center;"><b>Knowledge</b></p> <ol style="list-style-type: none"> <li>1. Sources of information about unanticipated hazards</li> <li>2. Applicable regulations, consensus codes, best practices, and local codes</li> <li>3. Hazards associated with falls, struck by, electricity, caught between/crushing</li> <li>4. Hazard recognition and abatement strategies</li> </ol>	<p style="text-align: center;"><b>Skills</b></p> <ol style="list-style-type: none"> <li>1. Reading construction drawings and contract documents</li> <li>2. Exercising sound judgment</li> <li>3. Responding to unanticipated situations</li> <li>4. Eliciting information from key personnel</li> </ol>
<p><b>Task 7</b></p> <p>Activate the emergency response plan when necessary in accordance with the site-specific safety plan in order to protect jobsite personnel and mitigate loss.</p>	
<p style="text-align: center;"><b>Knowledge</b></p> <ol style="list-style-type: none"> <li>1. Regulations and best practices applicable to emergency planning</li> <li>2. Emergency notification system (e.g., whom to call)</li> <li>3. Types of emergencies (e.g., fire, medical, weather, power outage, workplace violence, environmental, terrorist threats)</li> <li>4. Requirements and limitations of personal protective equipment</li> <li>5. Incident command system</li> <li>6. Emergency equipment</li> <li>7. Crisis management</li> <li>8. Medical/first aid procedures</li> <li>9. Bloodborne pathogens</li> <li>10. Security requirements and best practices</li> </ol>	<p style="text-align: center;"><b>Skills</b></p> <ol style="list-style-type: none"> <li>1. Responding to emergencies professionally</li> <li>2. Coordinating emergency services and systems</li> <li>3. Coordinating jobsite personnel in an emergency</li> <li>4. Communicating effectively in speech and writing</li> </ol>
<p><b>Task 8</b></p> <p>Participate in accident and incident investigations using established procedures in order to recommend appropriate corrective actions.</p>	
<p style="text-align: center;"><b>Knowledge</b></p> <ol style="list-style-type: none"> <li>1. Principles of investigation</li> <li>2. Investigation techniques (e.g., direct, indirect, root cause analysis)</li> <li>3. Record keeping and reporting of injuries and illnesses</li> <li>4. Statistical tools for accident and claims analysis</li> <li>5. Industry accident trends</li> <li>6. Craft-specific accident trends</li> <li>7. Sources of information about accidents</li> <li>8. Interviewing techniques</li> <li>9. Hazard recognition and abatement strategies</li> </ol>	<p style="text-align: center;"><b>Skills</b></p> <ol style="list-style-type: none"> <li>1. Communicating effectively in speech and writing</li> <li>2. Using computers</li> <li>3. Recommending corrective actions</li> <li>4. Interacting positively with others</li> <li>5. Motivating personnel to cooperate with investigations</li> <li>6. Interviewing</li> <li>7. Remaining objective</li> <li>8. Finding facts</li> </ol>

**DOMAIN 2**  
**Worksite Auditing • 40%**

**Task 1**

Perform worksite assessments in accordance with regulations, best practices, and the site-specific safety plan using a walkthrough in order to verify compliance and identify hazards and potential hazards in the workplace.

Knowledge	Skills
<ol style="list-style-type: none"> <li>1. Applicable regulations, consensus codes, best practices, and local codes</li> <li>2. Principles of ergonomics as applied to construction practices and material handling</li> <li>3. Common environmental hazards on construction sites (e.g., silica, asbestos, lead, noise)</li> <li>4. Fall protection principles and application</li> <li>5. Electrical safety and hazardous energy control (i.e., lockout/tagout)</li> <li>6. Requirements and limitations of personal protective equipment</li> <li>7. Scaffolds, ladders, and mobile elevated work platforms</li> <li>8. Machine guarding, hand, and power tool safety</li> <li>9. Trenching and excavation</li> <li>10. Confined spaces</li> <li>11. Hazard communication</li> <li>12. Fire prevention and protection</li> <li>13. Cranes and rigging</li> <li>14. Powered industrial trucks (e.g., forklifts)</li> <li>15. Steel erection</li> <li>16. Emergency medical equipment</li> <li>17. Site-specific safety plans</li> <li>18. Testing equipment (e.g., electrical testing, measuring tape, dosimeters, air monitoring)</li> </ol>	<ol style="list-style-type: none"> <li>1. Conducting worksite assessments</li> <li>2. Making observations to identify existing and foreseeable unsafe conditions and behaviors</li> <li>3. Using measuring equipment</li> <li>4. Documenting observations and measurements</li> </ol>

**Task 2**

Recommend corrective actions for the hazards and potential hazards identified in the worksite assessment using professional knowledge and judgment in order to prevent loss and ensure compliance with regulations and the site-specific safety plan.

Knowledge	Skills
<ol style="list-style-type: none"> <li>1. Coaching, counseling, and education techniques</li> <li>2. Hazard recognition and abatement strategies</li> <li>3. Engineering and administrative controls</li> <li>4. Established discipline and accountability systems</li> <li>5. Requirements and limitations of personal protective equipment</li> <li>6. Applicable regulations, consensus codes, best practices, and local codes</li> <li>7. Audit documentation techniques</li> <li>8. Management escalation processes</li> </ol>	<ol style="list-style-type: none"> <li>1. Coaching safe behaviors</li> <li>2. Recognizing imminent danger and applying stop-work techniques</li> <li>3. Communicating effectively in speech and writing</li> <li>4. Applying regulations</li> <li>5. Recommending engineering and administrative controls</li> <li>6. Recommending personal protective equipment</li> <li>7. Escalating unresolved issues</li> </ol>

**Task 3**

Participate in regulatory safety, health, and environmental inspections in accordance with directions provided in the site-specific safety plan in order to facilitate the inspection process.

Knowledge	Skills
<ol style="list-style-type: none"> <li>1. Applicable regulations, consensus codes, best practices, and local codes</li> <li>2. Insurance loss control requirements</li> <li>3. Site-specific safety plans</li> <li>4. Location of program and certification documents and records</li> <li>5. Regulatory inspection process, employer and employee rights, and expectations</li> <li>6. Regulatory jurisdictions</li> <li>7. Communications requirements</li> <li>8. Types of consequences</li> <li>9. Conflict resolution strategies</li> </ol>	<ol style="list-style-type: none"> <li>1. Using conflict resolution techniques</li> <li>2. Mitigating identified hazards in a timely manner</li> <li>3. Communicating effectively in speech and writing</li> <li>4. Coordinating jobsite personnel</li> <li>5. Using effective documentation techniques (e.g., note taking, photography, taking measurements)</li> </ol>

**DOMAIN 3**  
**Training • 27%**

**Task 1**

Determine training needs based on job safety analyses, regulatory requirements, trends, and/or observations made in worksite audits in order to develop appropriate training.

Knowledge	Skills
<ol style="list-style-type: none"> <li>1. Site-specific safety plans</li> <li>2. Job safety analysis content</li> <li>3. Applicable regulations, consensus codes, best practices, and local codes</li> <li>4. Industry-related injury and illness trends</li> <li>5. Craft-specific injury and illness trends</li> <li>6. Hazards associated with falls, struck by, electricity, caught between/crushing</li> <li>7. Effective training techniques</li> <li>8. Characteristics of worksite personnel (e.g., education level, language proficiency, English as a foreign language)</li> <li>9. Training needs assessment procedures</li> <li>10. Available delivery methods and instructional materials</li> </ol>	<ol style="list-style-type: none"> <li>1. Applying regulations and consensus standards</li> <li>2. Evaluating job safety analysis information, observations, and trends for relevant information</li> <li>3. Matching training to the characteristics and needs of worksite personnel</li> <li>4. Conducting perception surveys</li> </ol>

**Task 2**

Deliver training that addresses required program elements using program management guidelines, on-the-job training and evaluation, and formal and informal resources in order to deliver appropriate training.

Knowledge	Skills
<ol style="list-style-type: none"> <li>1. Site-specific safety plans</li> <li>2. Job safety analysis content</li> <li>3. Applicable regulations, consensus codes, best practices, and local codes</li> <li>4. Industry-related injury and illness trends</li> <li>5. Craft-specific injury and illness trends</li> <li>6. Hazards associated with falls, struck by, electricity, caught between/crushing</li> <li>7. Demographics of employees and their skill level</li> <li>8. Training objectives</li> <li>9. Instructional methods</li> <li>10. Audiovisual and other instructional equipment</li> <li>11. Communication strategies</li> <li>12. Time management strategies</li> <li>13. Conflict resolution strategies</li> </ol>	<ol style="list-style-type: none"> <li>1. Teaching to achieve training objectives</li> <li>2. Using available multi-media training techniques to deliver the program</li> <li>3. Adapting structured programs to local needs</li> <li>4. Evaluating competence and employee feedback to determine if changes are needed</li> <li>5. Communicating effectively in speech and writing</li> <li>6. Engaging the audience</li> <li>7. Resolving conflicts</li> </ol>

**Task 3**

Conduct site-specific job safety orientation and training using appropriate instructional methods in order to address jobsite hazards and abatement procedures as identified in the job safety analyses.

Knowledge	Skills
<ol style="list-style-type: none"> <li>1. Site-specific safety plans</li> <li>2. Job safety analysis content</li> <li>3. Applicable regulations, consensus codes, best practices, and local codes</li> <li>4. Industry-related injury and illness trends</li> <li>5. Craft-specific injury and illness trends</li> <li>6. Hazards associated with falls, struck by, electricity, caught between/crushing</li> <li>7. Demographics of employees and their skill level</li> <li>8. Training objectives</li> <li>9. Instructional methods</li> <li>10. Audiovisual and other instructional equipment</li> <li>11. Communication strategies</li> <li>12. Time management strategies</li> <li>13. Conflict resolution strategies</li> <li>14. Human behavior, both safe and at-risk</li> </ol>	<ol style="list-style-type: none"> <li>1. Teaching to achieve training objectives</li> <li>2. Using available multi-media training techniques to deliver the program</li> <li>3. Adapting structured programs to local needs</li> <li>4. Evaluating competence and employee feedback to determine if changes are needed</li> <li>5. Communicating effectively in speech and writing</li> <li>6. Engaging the audience</li> <li>7. Resolving conflicts</li> </ol>

<b>Task 4</b>	
Participate in jobsite safety meetings with all crafts by leading discussions, demonstrating safe practices, etc., in order to inform jobsite personnel of potential risks.	
<b>Knowledge</b>	<b>Skills</b>
<ol style="list-style-type: none"> <li>1. Site-specific safety plans</li> <li>2. Job safety analysis content</li> <li>3. Applicable regulations, consensus codes, best practices, and local codes</li> <li>4. Industry-related injury and illness trends and at-risk behavior</li> <li>5. Craft-specific injury and illness trends</li> <li>6. Hazards associated with falls, struck by, electricity, caught between/crushing</li> <li>7. Demographics of employees and their skill level</li> <li>8. Training objectives</li> <li>9. Scope of work for each craft on the jobsite</li> <li>10. Assessment strategies to determine that jobsite supervisors are able to lead safety meetings</li> </ol>	<ol style="list-style-type: none"> <li>1. Applying regulations and consensus standards</li> <li>2. Evaluating job safety analysis information, observations, and trends for relevant information</li> <li>3. Using available multi-media training techniques to deliver the program</li> <li>4. Communicating effectively in speech and writing</li> <li>5. Understanding human behavior in the context of worksite safety</li> <li>6. Interpreting job safety analyses</li> <li>7. Complying with the client's safety guidelines and procedures</li> <li>8. Assessing the skill levels of crafts people and supervisors</li> <li>9. Facilitating discussion of topics identified by meeting participants</li> <li>10. Accessing current information (e.g., regulations)</li> <li>11. Resolving conflicts</li> </ol>

**DOMAIN 4**  
**Professional Responsibility • 4%**

<b>Task 1</b>	
Maintain complete and accurate records in all aspects of the safety program in accordance with established protocol in order to document interventions, losses, and audit findings and to support future decision making.	
<b>Knowledge</b>	<b>Skills</b>
<ol style="list-style-type: none"> <li>1. Regulatory record keeping requirements</li> <li>2. Other record keeping requirements (e.g., company protocol on accident investigation, audits, inspections)</li> <li>3. Computer file management</li> <li>4. Physical file management</li> <li>5. Security and confidentiality requirements</li> </ol>	<ol style="list-style-type: none"> <li>1. Using information technology systems</li> <li>2. Organizing information</li> <li>3. Organizing documents</li> <li>4. Applying regulations and standards</li> <li>5. Thinking critically</li> </ol>
<b>Task 2</b>	
Maintain ongoing competence by participating in the Certification Maintenance program in order to ensure currency and adhere to best practices.	
<b>Task 3</b>	
Adhere to ethical standards for behavior in accordance with the CCHEST Code of Professional Conduct in order to protect the interests of stakeholders.	