

The CHST logo consists of a stylized 'X' shape made of four colored triangles (blue, red, green, and yellow) meeting at a central point, followed by the letters 'CHST' in a bold, blue, sans-serif font.

**UPDATING THE CHST
TO REFLECT MODERN
CONSTRUCTION SAFETY AND HEALTH PRACTICE**

WHAT IS THE SCHEDULE FOR MAKING THE EXAMINATION CHANGE?

Once CCEST approves a candidate's application and formally notifies the candidate that he or she is eligible to sit for the examination, the candidate must purchase an examination authorization from CCEST. A candidate will then be registered to take the examination based on either the old blueprint or the new blueprint. The date that the candidate purchased the examination authorization determines whether the candidate will receive an examination based on the old or new blueprint.

Candidates who purchase an examination authorization from CCEST before July 1, 2005, will receive an examination based on the old blueprint. Candidates who purchase an examination authorization from CCEST on or after July 1, 2005, will receive an examination based on the new blueprint.

WILL THE STYLE OF EXAMINATION ITEMS BE DIFFERENT?

Examination items will continue to be multiple-choice with four choices. Only one choice will be the correct answer.

HOW WILL CCEST IMPLEMENT THE CHANGES?

Basic Rule for New Examination Authorization Purchases

Candidates who properly purchase a new CHST examination authorization before July 1, 2005, will take a CHST examination based on the **old** blueprint. Candidates who properly purchase a new CHST examination authorization on or after July 1, 2005, will take a CHST examination based on the **new** blueprint.

Basic Rule for 60-day Examination Extensions

Regardless of when a candidate purchases a 60-day examination extension, the candidate will receive a CHST examination based on the blueprint that the candidate **initially** purchased.

Basic Rule for Failing Candidates

A candidate who attempts and fails the CHST examination on or after July 1, 2005, must take an examination based on the new blueprint when the candidate purchases a new examination authorization.

WILL ONE NEED TO PREPARE FOR THE EXAMINATION DIFFERENTLY?

While candidates will need to prepare for some changes in examination subjects, there should be no changes in **how** candidates prepare. The best approach is for candidates to evaluate the portions of the examination that are their strong areas and those that are their weak areas. The candidate will have to get enough items correct to meet or exceed the passing score. Most likely, candidates will have to study most in their weaker areas. Candidates will not likely improve their scores by simply retaking the examination. Study in weaker areas is important.

Candidates should consider using the CHST Self-assessment Examination to help identify their strengths and weaknesses and to get a feel for the CHST examination. A new self-assessment examination edition reflecting the new CHST examination blueprint is available.

WHAT WILL CHANGE ON CHST EXAMINATIONS?

The newest CHST validation study will result in two main changes to the CHST examination. First, the structure will change from subject-based to function-based. The old CHST examination is based on the general subject areas needed in construction safety and health practice and the topics within each general subject area. The new examination will be structured around the major functions of construction safety and health practice along with the tasks within each function. Examination items will cover the knowledge and skills needed within each task.

Second, there are some content changes. While most of the knowledge and skills needed for construction safety and health practice remain the same, there is one significant content change on the new examination related to professional responsibility.

Changes in Structure

A major and noticeable change involves the examination blueprint structure. The old CHST examination is structured around major and minor subjects that CHSTs need to know. The new examination blueprint is structured around the functions and tasks that CHSTs perform. However, within each task are the knowledge and skills required to perform those functions and tasks.

As a result, the structure has little impact on the physical examination content, since items are still written for knowledge and skills.

Changes in Content

The new validation study resulted in a blueprint with more specific knowledge and skill statements with which CHST candidates must demonstrate competence. The old blueprint was more generic in its approach to knowledge and skill statements. These more specific statements allow CHST candidates to more precisely prepare for the examination.

Domain 4 (Professional Responsibility) is a new domain in the new CHST examination blueprint. CHST candidates must demonstrate an understanding of ethical issues and the requirements of maintaining the CHST certification.

WHAT IS A VALIDATION STUDY?

A validation study assesses what people in an area of construction safety and health do in their jobs. The results are used to structure examinations for that profession. By linking the examination contents to what the practitioners do, the examination will have content validity.

WHY IS A VALIDATION STUDY NEEDED?

An examination used to assess professional competency is not a fair examination unless the examination contents reflect what people in practice actually do.

National accreditation standards for peer certifications require that examination contents be validated periodically against the practice the examination intends to measure.

The full CHST validation study is available on the CCHST web site at www.cchest.org. The CHST 2004 Technical Report (Role Delineation Study) is located on the Downloads page.

Table 1. Old CHST Blueprint and Examination Specification

<p>Subject/Knowledge Areas Required for Each Task (The bullets indicate which of the eight tasks listed at the right rely upon knowledge of the subject areas listed below.)</p>	<p>Tasks (as a percentage of examination)</p>							
	<p>1. Safety and Health Inspections (30%)</p>	<p>2. General Safety Training and Safety Orientation (20%)</p>	<p>3. Safety and Health Recordkeeping (5%)</p>	<p>4. Hazard Communication Compliance (10%)</p>	<p>5. Safety Analysis and Planning (10%)</p>	<p>6. Accident Investigations (10%)</p>	<p>7. Program Management and Administration (10%)</p>	<p>8. OSHA and Other Inspections (5%)</p>
<p>A. Working knowledge of applicable OSHA and other safety and health standards</p> <p>1) Hazard communication</p> <p>2) Bloodborne pathogen standard</p> <p>3) Recordkeeping and safety program documentation</p> <p>4) First aid practices</p>	•	•	•		•	•	•	•
B. Safe use of construction tools and equipment	•	•			•	•	•	
C. Safe construction practices	•	•			•	•	•	•
D. Selection and use of personal protective equipment	•	•			•	•		•
E. Use of safety test equipment	•	•			•	•		•
F. Job hazard analysis and other safety analysis and job planning methods	•	•			•		•	
G. Ergonomics	•	•			•		•	•
H. Knowledge of safety and health training and teaching methods		•		•				
I. Accident and incident equipment investigation methods and use of investigative				•	•	•		
J. Inspection and appeal procedures of federal OSHA and other government agencies				•	•	•		
K. Basics of organizational and human behavior for safety							•	•
L. Program management and administration						•	•	•

Table 2. New CHST Blueprint and Examination Specification

DOMAIN 1 Program Management • 29%	
Task 1 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.	
Knowledge	Skills
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	1. Accessing applicable documents 2. Reviewing applicable documents 3. Interpreting applicable documents 4. Reading construction drawings
Task 2 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.	
Knowledge	Skills
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	1. Applying regulations 2. Evaluating construction means and methods 3. Communicating effectively in speech and writing 4. Planning for emergencies 5. Documenting identified hazards
Task 3 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.	
Knowledge	Skills
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	1. Communicating effectively in speech and writing 2. Coordinating activities 3. Setting safety priorities 4. Applying regulations and best practices
Task 4 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.	
Knowledge	Skills
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	1. Recognizing hazards 2. Thinking critically 3. Developing job safety analyses 4. Eliciting information from key personnel 5. Communicating effectively in speech and writing

Table 2. New CHST Blueprint and Examination Specification (con't)

<p>Task 5</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>Knowledge</p> <ol style="list-style-type: none"> 1. Applicable regulations, consensus codes, best practices, and local codes 2. Record keeping requirements 3. Substance abuse programs 4. Requirements and limitations of personal protective equipment 5. Communication practices (e.g., vehicle to disseminate information) 6. Security requirements and best practices 	<p>Skills</p> <ol style="list-style-type: none"> 1. Communicating effectively in speech and writing 2. Using email 3. Using information technology systems 4. Accessing current information (e.g., regulations)
<p>Task 6</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>Knowledge</p> <ol style="list-style-type: none"> 1. Sources of information about unanticipated hazards 2. Applicable regulations, consensus codes, best practices, and local codes 3. Hazards associated with falls, struck by, electricity, caught between/crushing 4. Hazard recognition and abatement strategies 	<p>Skills</p> <ol style="list-style-type: none"> 1. Reading construction drawings and contract documents 2. Exercising sound judgment 3. Responding to unanticipated situations 4. Eliciting information from key personnel
<p>Task 7</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>Knowledge</p> <ol style="list-style-type: none"> 1. Regulations and best practices applicable to emergency planning 2. Emergency notification system (e.g., whom to call) 3. Types of emergencies (e.g., fire, medical, weather, power outage, workplace violence, environmental, terrorist threats) 4. Requirements and limitations of personal protective equipment 5. Incident command system 6. Emergency equipment 7. Crisis management 8. Medical/first aid procedures 9. Bloodborne pathogens 10. Security requirements and best practices 	<p>Skills</p> <ol style="list-style-type: none"> 1. Responding to emergencies professionally 2. Coordinating emergency services and systems 3. Coordinating jobsite personnel in an emergency 4. Communicating effectively in speech and writing
<p>Task 8</p> <p>Participate in accident and incident investigations using established procedures in order to recommend appropriate corrective actions.</p>	
<p>Knowledge</p> <ol style="list-style-type: none"> 1. Principles of investigation 2. Investigation techniques (e.g., direct, indirect, root cause analysis) 3. Record keeping and reporting of injuries and illnesses 4. Statistical tools for accident and claims analysis 5. Industry accident trends 6. Craft-specific accident trends 7. Sources of information about accidents 8. Interviewing techniques 9. Hazard recognition and abatement strategies 	<p>Skills</p> <ol style="list-style-type: none"> 1. Communicating effectively in speech and writing 2. Using computers 3. Recommending corrective actions 4. Interacting positively with others 5. Motivating personnel to cooperate with investigations 6. Interviewing 7. Remaining objective 8. Finding facts

Table 2. New CHST Blueprint and Examination Specification (con't)

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.	
<p style="text-align: center;">Knowledge</p> <ol style="list-style-type: none"> 1. Applicable regulations, consensus codes, best practices, and local codes 2. Principles of ergonomics as applied to construction practices and material handling 3. Common environmental hazards on construction sites (e.g., silica, asbestos, lead, noise) 4. Fall protection principles and application 5. Electrical safety and hazardous energy control (i.e., lockout/tagout) 6. Requirements and limitations of personal protective equipment 7. Scaffolds, ladders, and mobile elevated work platforms 8. Machine guarding, hand, and power tool safety 9. Trenching and excavation 10. Confined spaces 11. Hazard communication 12. Fire prevention and protection 13. Cranes and rigging 14. Powered industrial trucks (e.g., forklifts) 15. Steel erection 16. Emergency medical equipment 17. Site-specific safety plans 18. Testing equipment (e.g., electrical testing, measuring tape, dosimeters, air monitoring) 	<p style="text-align: center;">Skills</p> <ol style="list-style-type: none"> 1. Conducting worksite assessments 2. Making observations to identify existing and foreseeable unsafe conditions and behaviors 3. Using measuring equipment 4. Documenting observations and measurements
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.	
<p style="text-align: center;">Knowledge</p> <ol style="list-style-type: none"> 1. Coaching, counseling, and education techniques 2. Hazard recognition and abatement strategies 3. Engineering and administrative controls 4. Established discipline and accountability systems 5. Requirements and limitations of personal protective equipment 6. Applicable regulations, consensus codes, best practices, and local codes 7. Audit documentation techniques 8. Management escalation processes 	<p style="text-align: center;">Skills</p> <ol style="list-style-type: none"> 1. Coaching safe behaviors 2. Recognizing imminent danger and applying stop-work techniques 3. Communicating effectively in speech and writing 4. Applying regulations 5. Recommending engineering and administrative controls 6. Recommending personal protective equipment 7. Escalating unresolved issues
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.	
<p style="text-align: center;">Knowledge</p> <ol style="list-style-type: none"> 1. Applicable regulations, consensus codes, best practices, and local codes 2. Insurance loss control requirements 3. Site-specific safety plans 4. Location of program and certification documents and records 5. Regulatory inspection process, employer and employee rights, and expectations 6. Regulatory jurisdictions 7. Communications requirements 8. Types of consequences 9. Conflict resolution strategies 	<p style="text-align: center;">Skills</p> <ol style="list-style-type: none"> 1. Using conflict resolution techniques 2. Mitigating identified hazards in a timely manner 3. Communicating effectively in speech and writing 4. Coordinating jobsite personnel 5. Using effective documentation techniques (e.g., note taking, photography, taking measurements)

Table 2. New CHST Blueprint and Examination Specification (con't)

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 1. Site-specific safety plans 2. Job safety analysis content 3. Applicable regulations, consensus codes, best practices, and local codes 4. Industry-related injury and illness trends 5. Craft-specific injury and illness trends 6. Hazards associated with falls, struck by, electricity, caught between/crushing 7. Effective training techniques 8. Characteristics of worksite personnel (e.g., education level, language proficiency, English as a foreign language) 9. Training needs assessment procedures 10. Available delivery methods and instructional materials	Skills 1. Applying regulations and consensus standards 2. Evaluating job safety analysis information, observations, and trends for relevant information 3. Matching training to the characteristics and needs of worksite personnel 4. Conducting perception surveys
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 1. Site-specific safety plans 2. Job safety analysis content 3. Applicable regulations, consensus codes, best practices, and local codes 4. Industry-related injury and illness trends 5. Craft-specific injury and illness trends 6. Hazards associated with falls, struck by, electricity, caught between/crushing 7. Demographics of employees and their skill level 8. Training objectives 9. Instructional methods 10. Audiovisual and other instructional equipment 11. Communication strategies 12. Time management strategies 13. Conflict resolution strategies	Skills 1. Teaching to achieve training objectives 2. Using available multi-media training techniques to deliver the program 3. Adapting structured programs to local needs 4. Evaluating competence and employee feedback to determine if changes are needed 5. Communicating effectively in speech and writing 6. Engaging the audience 7. Resolving conflicts
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 1. Site-specific safety plans 2. Job safety analysis content 3. Applicable regulations, consensus codes, best practices, and local codes 4. Industry-related injury and illness trends 5. Craft-specific injury and illness trends 6. Hazards associated with falls, struck by, electricity, caught between/crushing 7. Demographics of employees and their skill level 8. Training objectives 9. Instructional methods 10. Audiovisual and other instructional equipment 11. Communication strategies 12. Time management strategies 13. Conflict resolution strategies 14. Human behavior, both safe and at-risk	Skills 1. Teaching to achieve training objectives 2. Using available multi-media training techniques to deliver the program 3. Adapting structured programs to local needs 4. Evaluating competence and employee feedback to determine if changes are needed 5. Communicating effectively in speech and writing 6. Engaging the audience 7. Resolving conflicts

Table 2. New CHST Blueprint and Examination Specification (con't)

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

<p>DOMAIN 4</p> <p>Professional Responsibility • 4%</p>

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