

Certification Handbook

**International Board for Certification of
Safety Managers**

**CHSP
CHEP
CHCM**

**CHSP-FSM
CHEP-FSM
CHCM-SEC**



**CPSO
CEDP
CHSN**

**CPSM
CHS-LTC
CHS-EVS**

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Overview

The International Board for Certification of Safety Managers (IBFCM), established in 1976, operates as a not-for-profit (503c6) organization. IBFCM is not affiliated with any membership group, association, or lobbying body. IBFCM exists solely for the purpose of issuing individual safety, emergency, and hazard control related certifications qualified Candidates. IBFCM's mission statement is to upgrade-the-profession by offering real world certification opportunities. IBFCM establishes certification and re-certification requirements for the following credentials listed below. IBFCM also offers CHEP and CHSP holders an opportunity to earn the Fire Safety Management (FSM) complementary credential which can be added to the primary credentials (CHSP-FSM or CHEP-FSM).

Certified Healthcare Safety Professional (CHSP)
Certified Hazard Control Manager (CHCM)
Certified Healthcare Emergency Professional (CHEP)
Certified Patient Safety Officer (CPSO)
Certified Product Safety Manager (CPSM)
Certified Hazard Control Manager-Security (CHCM-SEC)
Certified Emergency and Disaster Professional (CEDP)
Certified in Healthcare Safety: Nursing (CHSN)
Certified in Healthcare Safety: Long Term Care (CHS-LTC)
Certified in Healthcare Safety: Environmental Services (CHS-EVS)

Non-Discrimination & Special Accommodation

Certification opportunities are offered to all eligible Candidates. IBFCM does not discriminate on the basis of age, gender, race, religion, ethnicity, national origin, marital status, or disability. Candidates with a disability covered by the treated with strict confidentiality.

Candidate Qualifications

Candidates do not have to have four-year degree to qualify. IBFCSM issues credentials at the Master and Associate Levels. Master Level Candidates must document relevant experience and/or college education to equal eight (8) years. Master Level Candidates must document four (4) years of experience regardless of education. Associate Level Candidates must document four (4) years of experience and/or education combined with a minimum of two-years of experience. Thirty (30) semester hours of college credit equals one year of experience. Official college transcripts are not required unless specifically requested by IBFCSM. College credits and degrees must be earned from Regionally Accredited Institutions. A Candidate's electronic signature on the Online Application gives IBFCSM right to validate and/or verify all information submitted. Contact the Board for additional qualification information.

Online Applications

Candidates for Certification must complete an Online Application at: www.ibfcsm.org. Candidates must enter all requested information. There are no exceptions. Candidates must ensure that two (2) persons aware of their fitness for Certification complete Online Reference Evaluation Forms. The Online Application process requires all Candidates to review the Ethical Code of Conduct and acknowledge understanding by submitting an electronic signature. The Electronic Signature feature gives IBFCSM the right to verify/validate all information submitted by a Candidate. If IBFCSM discovers that false or misleading information was submitted, the Candidate will be disqualified. Contact: brenda@ibfcsm.org to check on the status of any Online Application submission.

Application/Exam Fees

Please review the IBFCSM web site to determine the current Application and Exam Fee. The Fee for International Candidates will be slightly higher. All Candidates can pay online can at the Secure E-Pay Portal found at www.ibfcsm.org. IBFCSM accepts VISA, Master Card, or American Express. Candidates can also pay by check by remitting the correct amount to: IBFCSM, P.O. Box 515, Helena, Alabama 35080-0515. IBFCSM can send an I invoice for payment of fees when a valid Purchase Order Number is provided. If you have a question about the Application/Exam Fee contact IBFCSM by phone at 205-664-8412 or email: jan@ibfcsm.org.

General Examination Information

Each exam contains at least 100 multiple choice questions with four possible answers. Exam content has is developed with assistance of practicing professionals and/or subject matter experts. IBFCSM statistically analyzes exams to ensure both validity and reliability. Candidates must assess their personal readiness to take a particular certification exam. IBFCSM does not mandate any formal preparation prior to taking an exam. Exam preparation decisions are left up to individual Candidates. IBFCSM does not receive any revenue from workshops presented by independent training groups. Please review exam outlines and sample questions for each IBFCSM credential which are included in this document.

The IBFCSM web sites does list concept review workshops presented by independent trainers. IBFCSM receives no revenue from these sessions. The web site also contains information about obtaining self-study information. Candidates make their own arrangements for taking a paper and pencil version of the exam. Candidates must pay any fees charged by local proctors. IBFCSM can send paper pencil exams to the following locations: college testing centers, community libraries, medical libraries, and military/governmental education offices. Other locations may be approved by the IBFCSM on a case-by-case basis. Candidates with completed applications desiring to sit for a paper and pencil exam must submit their Online Proctor Form to IBFCSM 14 days prior to the desired examination date. IBFCSM does not send paper and pencil exams to international locations. Candidates may take paper and pencil exams when attending a workshop where an Authorized Proctor will administer exams at the conclusion of the session. IBFCSM does not require completion of an Online Proctor Form in these cases. Candidates planning to attend a session where the exam will be administered must list the testing date and city/state location when completing their Online Application or contact IBFCSM via email at: brenda@ibfcsm.org. Candidates desiring to sit for an electronic exam must register with TesTrac. You can register for an exam by clicking on the TesTrac Link found on IBFCSM web site at: www.ibfcsm.org. Candidates sitting for an online examination must pay the \$100 Proctor/Download fee to TesTrac when registering to take an examination.

Credential Management

Certifications are managed on a Calendar-Year basis with all certifications expiring on December 31. One Candidate may receive a credential in January 2014 and another Candidate may receive a credential in November 2014; however, both members would have a December 31 expiration date. Candidates receiving a credential can use the appropriate designation on letterheads, business cards, and forms of address. Certification is for individuals only and may not be used to imply that an organization is certified in some manner. Certification processes can't determine who is qualified or who shall engage in any professional activity or job function. Exam results can only determine a Candidate's competency when measured against a predetermined level of knowledge. Information about the current certification status of an individual is available to the public upon request. Employers or others who request verification of certification status must provide the individual's name and certification number to ensure correct identification. IBFCSM does posts a list of certified individuals on its web site but that information is updated quarterly.

Annual Maintenance Fees

Certified members must renew their credential on an annual basis by paying an Annual Maintenance Fee. IBFCSM operates as a not-for-profit organization with all operating revenue coming solely from our fees. Each credential holder will receive their Annual Invoice in October or early November. The Maintenance Fee is for the following Calendar-Year. Maintenance fees must be received at the Board by December 31 or be considered late. Credential holders renewing after December 31 will be assessed a late fee for each credential held. Failure to submit the Annual Maintenance Fee and any late fees by February 28 will result in a Temporary Suspension of the credential. Failure to submit the Annual Maintenance Fees and late fees by May 31 will result in Revocation of the Credential.

Recertification

Certification holders must also Recertify every five years counting from the year of initial certification. The Board requires 10 hours of Continuing Education each year or 50 hours for each the five (5) year period. To meet certification requirements each member must complete and submit a Recertification Summary Report and pay the current Recertification Fee. Documented all earned hours in the Summary Report. Do not send completion certificates or other documentation directly to the Board. Ensure that the continuing education relates to topics listed on the most current exam outline for each certification. The Board sends each credential holder a reminder of their pending re-certification date. The Board does conduct Random Audits of Summary Reports to maintain the integrity of the process. IBFCSM uses clock hours to track continuing education. IBFCSM also accepts CEUs. For example, 1.0 CEU would equal 10 clock hours. We also accept college credit and non-credit courses related to the credential exam outline. A 3-hour college credit course would equal 30 hours of continuing education. Non-credit courses are based on actually clock hours. Recurring job-related education can't be used to satisfy education requirements.

Professional Certification & Certificate Courses

The primary purpose of a professional certification process is to assess knowledge, skills, and competencies of Candidates. These assessments must be independent of any class, session, self-study course, and other education or training sessions. Certification processes determine the competency of an individual Candidate. Certificate-based education consists of instruction and training that helps participants acquire specific knowledge or skills. Most certificate programs involve one-time events that lead to a certificate documenting completion. Professional certifications involve ongoing processes that ensure individuals maintain competency. This can be accomplished by documenting relevant continuing education or mandating periodic retaking of an examination to maintain a credential. The practice of awarding designations for completion of a certificate program is now prohibited by ANSI/NOCA 1100, Standard for Assessment-Based Certificate Programs.

Candidate Misconduct

Engaging in misconduct during an examination may result in dismissal from the session. Exam scores will not be reported and fees will not be refunded if dismissed for conduct reasons. Candidates must never use or display electronic communication equipment during any examination. Talking with other examination Candidates is prohibited. All examination questions are the Copyrighted property of IBFCSM. It is forbidden under Federal Copyright Law to copy, reproduce, record, distribute, or display these examination questions by any means, in whole or in part. Doing so may subject the Candidate to severe civil and criminal penalties. The exam proctor will monitor Candidates for the following: (1) providing or receiving help during the session, (2) leaving the testing location during the exam administration, (3) attempting to record exam questions or create notes, and (5) being observed with personal belongings, notes, books, or other aids.

Examination Scores

IBFCSM does not release or discuss individual questions with Candidates following any examination. The methodology used to set the minimum passing score is the juried method. Subject matter experts evaluate each exam question to determine how many correct answers are necessary to demonstrate the knowledge or competency. Passing scores depend on the knowledge of each Candidate and not on the performance of other Candidates. The passing score or cut-score may vary slightly for each Exam Form for a particular credential. IBFCSM uses the process known as statistical equating to ensure fairness among exams. Those taking an electronic-based or a paper and pencil examination will receive scores via email once the exams have been scored and validated by the Board. No scores will be released to any Candidate unless a complete Application and Reference Evaluations are on file at the Board and all fees have been paid. Individual scores can't be released to anyone but the Candidate.

Examination Failures

Candidates not passing a certification exam may sit for re-examination immediately with no waiting period. A subsequent failure will require Candidates to wait 90 days before retesting. There is no limit on the number of times a Candidate may re-take the examination but the 90-day rule applies. Candidates must pay the current re-examination fee as published on the IBFCSM web site. Names of Candidates who do not pass the examination are confidential and are never revealed under any circumstances, except by legal compulsory process. There is no appeal process to challenge any examination questions, answers, or a failing scores. Actions by the Board, affecting the eligibility of a Candidate to take an examination, may be appealed. Appeals may also be considered for alleged inappropriate examination administration procedures or for environmental testing conditions severe enough to cause a major disruption of the testing process. All appeals must be submitted in writing to the Board's Executive Director. Refer to the IBFCSM web site for the current re-examination fees.

Certified Healthcare Safety Professional (CHSP) Overview

The CHSP credential was established in 1978 to focus on the importance of using management principles to improve the safety performance of healthcare organizations. Since 1978, the Board has issued more than 3,500 CHSP credentials. The broad scope of the CHSP Exam attracts Candidates from various healthcare backgrounds including, but not limited to, safety, security, infection prevention, employee health, nursing, quality improvement, administration, risk management, facility management, plant operations, hazardous materials management, emergency management, life safety, biomedical services, environmental services, laboratory operations, nursing homes, surgery centers, insurance loss control, and safety consulting. The CHSP credential continues to attract Candidates desiring to improve their professional practice in healthcare safety and related functions. Earning the CHSP credential provides recognition and documents achievement. Healthcare organizations need certified professionals that understand how proactive safety practice supports operational effectiveness, improves care processes, and reduces organizational costs. The textbook: Healthcare Hazard Control and Safety Management, can help Candidates prepare for the CHSP Exam. The book is available for purchase from the Board.

CHSP Examination Outline

I. Management (20%)

A. Hazard Control Techniques and Safety Management Principles

1. Accident, Injury, and Illness Prevention and Accident Costing
2. Inspections, Audits, Surveys, Investigations, and Root Cause Analysis
3. Safety Policies, Safety Plans, Work Rules, and Reporting Procedures
4. Safety Cultures, System Safety, and High Reliability Organizations

B. General Management Principles

1. Management and Leadership Concepts, and Principles
2. Human Relations and Understanding Organizational Cultures
3. Managerial Techniques (Management by Exception, Migrating Decision Making, etc.)

II. Government Agencies and Standards (25%)

A. Occupational Safety and Health Administration (OSHA)

1. OSH Act and General Duty Clause (Dangerous Drugs, TB, Lasers, Workplace Violence)
2. Healthcare Related Standards
 - (a) Hazard Communication (29 CFR 1910.1200)
 - (b) Respiratory Standard (29 CFR 1910.134)
 - (c) Controlling Hazardous Energy (29 CFR 1910.147)
 - (d) Permit Confined Spaces (29 CFR 1910.146)
 - (e) HazWoper (29 CFR 1910.120)
 - (f) Air Contaminants (29 CFR 1910, Subpart Z)
 - (g) Electrical Standards (29 CFR 1910.303)
 - (h) Bloodborne Pathogens (29 CFR 1910.1030)
 - (i) Healthcare E-Tools (OSHA Website)

B. Environmental Protection Agency (40 CFR)

1. Resource Conservation & Recovery Act (RCRA) and Universal Waste Act (UWA)
2. Clean Water Act (CWA) and Clean Air Act (CAA)
4. Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

C. Nuclear Regulatory Commission (10 CFR)

D. Food and Drug Administration (21 CFR)

E. Department of Transportation (49 CFR)

G. Department of Health and Human Services (42 CFR) – NIOSH, CMS, AHRQ, ATSDR, etc.

III. Healthcare Hazard Identification, Evaluation, and Control (20%)

A. Physical Hazards (Electrical, machine, equipment, tools, noise, radiation, etc.)

B. Chemical Hazards (Disinfectants, pesticides, solvents, dangerous drugs, gases, etc.)

- C. Ergonomic/Environmental Hazards (Repetitive tasks, falls, musculoskeletal disorders, etc.)
- D. Biohazards (Legionella, waste handling, sharps exposures, construction risks, etc.)
- E. Psycho-Social Hazards (Workplace violence, security, substance abuse, stress, shift work, etc.)
- E. Healthcare Clinical and Support Department Safety

IV. Voluntary and Standards Organizations (15%)

- A. National Fire Protection Association (NFPA)
- B. American National Standards Institute (ANSI) and American Society of Testing Materials (ASTM)
- C. American Society of Heating, Refrigerating, & Air Conditioning Engineers (ASHRAE)
- D. Underwriters Laboratory (UL) and Factory Mutual (FM)
- E. American Conference of Government Industrial Hygienists (ACGIH)

V. Accrediting Organizations, Fire Safety, & Infection Control (20%)

- A. Joint Commission (EOC, Life Safety, and Emergency Standards)
- B. American Osteopathic Association (AOA), Det Norske Veritas (DNV), and CMS (Nursing Homes and Hospitals)
- C. Life Safety (NFPA 101) and Healthcare Facilities (NFPA 99)
- D. Fire Safety Management and Other Relevant NFPA Publications
- E. Fire Prevention and Flammable Materials
- F. CDC Infection Control Guidelines
- G. Pandemic Planning and Infection Related Medical Surge Issues
- D. Healthcare Acquired Infections and Opportunistic Infections (Aspergillus and Pseudomonas)

CHSP Sample Questions

1. Which of the following best describes the benefit of implementing a patient lifting program?
 - a. Improved patient quality of care*
 - b. Reduced workers' compensation costs
 - c. Greater resident satisfaction
 - d. Increased morale for employees

2. Which NFPA publication exclusively addresses healthcare facility topics?
 - a. NFPA 13
 - b. NFPA 72
 - c. NFPA 99*
 - d. NFPA 101

3. Which control measure should be considered first when protecting workers from chemical airborne contaminants?
 - a. Isolating the hazard far from most workers
 - b. Providing proper local and general ventilation*
 - c. Requiring use of supplied air respirators immediately
 - d. Conducting periodic monitoring in all exposure areas

4. Which dietary hazard control would be least effective in preventing potential food-borne illnesses?
 - a. Requiring food preparation workers to wash hands frequently
 - b. Maintaining hot foods on the serving line at 140F or higher
 - c. Providing a supply of cloth towels to wipe food prep surfaces frequently*
 - d. Maintaining coolers and refrigerators at 40F or lower

Certified Hazard Control Manager (CHCM) & Certified Hazard Control Manager-Security (CHCM-SEC) Overview

The CHCM designation, established in 1976, focuses on the importance of using management and hazard control principles to improve the safety and health of various types of organizations. To date more than 3,400 hazard control personnel have earned the prestigious CHCM credential. CHCM holders work in various settings including, but not limited to, manufacturing, construction, mining, transportation, healthcare, government, education, consulting, insurance, compliance, risk management, and system safety. Organizations need professional hazard control managers that understand how safety and management principles support accident prevention and loss reduction efforts. In 2012, IBFCSM created the CHCM-SEC credential to meet a need in the Private and Industrial Security fields. The CHCM-SEC Exam addresses the same concepts as does the CHCM Exam with the addition of questions that related to private security. CHCM and CHCM-SEC candidates must complete a formal application process and pass a comprehensive closed-book exam of at least 100 multiple choice items. Candidates preparing for the CHCM and CHCM-SEC Exams should refer to the textbook: Introduction to Hazard Control Management, by James Tweedy, and published by CRC Press in 2013. The book is available for purchase from IBFCSM.

CHCM Examination Outline

I. Hazard Control Management Concepts & Principles (40%)

A. Hazard Control Techniques and Safety Management Principles

1. Defining Accidents, Accident Myths, and Accident Generation (Hazard Closing)
2. Accident Prevention, Accident Investigations, and Accident Costing
3. Root Cause Analysis, Failure Mode Analysis, and Fault Tree Methodology
4. Hazard Control Challenges
5. System Safety Methods
6. Management and Supervisor Safety Responsibilities
7. Accident and Injury Prevention/Analysis
8. Controlling Hazards (Engineering, Work, Administrative Controls, PPE)
9. Hazard Categories (Physical, Biological, Chemical, Ergonomics, Psychosocial)
10. Safety Committees Composition and Responsibilities
11. Safety Policies, Plans, Rules, and Procedures
12. Hazard Control and Interfacing Organizational Functions
13. Orientation, Training, and Education

B. General Management Topics

1. Concepts and Functions of Management
2. Leadership Principles, Human Relations, and Correcting Unsafe Behaviors
3. Understanding Organizational Cultures (Overt and Covert)
4. Management by Exception and Migrating Decision Making,
5. Organization Transparency, Trust
6. Open and Closed Systems
7. Oral and Written Communication

II. Government Agencies & Standards (20%)

- A. Occupational Safety and Health Administration (29CFR)
- B. Environmental Protection Agency (40 CFR)
- C. Nuclear Regulatory Commission (10 CFR)
- D. Department of Transportation (49 CFR)
- F. Department of Homeland Security (44CFR)

III. Hazard Identification, Evaluation, & Control (20%)

- A. Physical Hazards and Chemical Hazards
- B. Ergonomic/Environmental Hazards
- C. Biohazards
- D. Psycho-Social Hazards
- E. Emerging Hazards

IV. Voluntary & Standards Organizations (20%)

- A. National Fire Protection Association (NFPA)
- B. American National Standards Institute (ANSI)
- C. American Society of Testing Materials (ASTM)
- D. Safety Equipment Institute (SEI)
- E. Laser Institute of America (LIA)
- F. American Society of Heating, Refrigerating, & Air Conditioning Engineers (ASHRAE)
- G. Underwriters Laboratory (UL) and Factory Mutual (FM)
- H. American Conference of Government Industrial Hygienists (ACGIH)
- I. National Sanitation Foundation (NSF)
- J. American Industrial Hygiene Association (AIHA)
- K. Institute of Electrical and Electronics Engineers (IEEE)
- L. International Organization for Standardization (ISO)

CHCM Sample Questions

1. Which of the following would contribute most to a hazard control manager's success?
 - a. Development of working relationships with line supervisors and staff function managers*
 - b. Providing immediate solutions to all safety related problems when requested
 - c. Promoting safety as a profit center and enlisting others to help improve the bottom line
 - d. Correcting hazards without help from other members of the organization

2. Which of the following best describes the role of an effective hazard control manager?
 - a. Inspector
 - b. Analyzer
 - c. Advisor*
 - d. Technician

3. Which of the following is not a major component of hazard control management?
 - a. Engineering
 - b. Compliance*
 - c. Human Factors
 - d. Management

4. Which statement about accidents is true?
 - a. Accidents can be classified as random events
 - b. Accidents can sometime have only a single cause
 - c. Accidents are symptoms of management problems*
 - d. Accidents can truly never be prevented only controlled

Certified Healthcare Emergency Professional (CHEP) Overview

IBFCSM developed the CHEP credential in 2008 to meet a need for a practical but “professional certification” for healthcare emergency directors, managers, coordinators, and associates. The program relies on information, standards, and best practices from reliable sources including organizations such as NFPA, ASTM, DHS, EPA, OSHA, FEMA, and accrediting organizations such as the Joint Commission. Healthcare organizations need professionals that understand how emergency management principles support the healthcare environment of care and the community. CHEP candidates must complete a formal application process and pass a comprehensive “closed book” exam of at least 100 multiple-choice items.

CHEP Exam Outline

I. Emergency Management Fundamentals (45%)

- A. Emergency Management and Disaster Response History & Concepts
- B. Federal Legislation for Emergency Management and Homeland Security
- C. Presidential Directives Related to Emergency Management
- D. Regulatory Agencies (DHS, FEMA, OSHA, EPA, DOT, FCC, CDC, ASTDR, NIOSH, AHRQ, etc.)
- E. Voluntary and Standards Agencies (NFPA, ANSI, ASTM, ASHRAE, Red Cross, etc.)
- F. Emergency Management and All-Hazards Planning (Emergency Operations Plan)
- G. Business Continuity & NFPA 1600
- H. Healthcare Emergency Planning & NIMS Healthcare Implementation (14 Items)
 - I. Understanding Systems and Standardization
- J. Incident Command Systems (ICS) Organization and Structure
- G. Communication Support (TSP, GETS, &WPS)
- H. Incident Action Planning & Multi-Agency Coordination (Area & Unified Commands)
- I. Weather and Other Natural Disasters (Floods, thunderstorms, tropical storms, earthquakes, etc.)
- J. Technological and Transportation Emergencies
- K. Emergency Concepts and Terms (safety, management, organizational culture, etc.)
- L. OSHA Emergency Terms & National Response Framework Terms

II. Healthcare Emergency Concepts & Accreditation Standards (20%)

- A. Emergency Management (Planning, Response, Mitigation, & Recovery)
- B. Joint Commission Emergency Management Standards
- C. Healthcare Emergency Planning & Hazard Vulnerability Analysis (HVA)
- D. The Emergency Operations Plans (EOP)
- E. Hospital Incident Command Systems (HICS)
- F. Sustaining Healthcare Operations (leadership, clinical issues, medications, etc.)
- G. Resource Management (staff, utilities, essential services, safety, security, etc.)
- H. Patient Management (care, triage, evacuation, surge, licensed and unlicensed volunteers)
- I. Community and Hospital Roles (involvement, roles, coordination)

III. Other Emergency Requirements (15%)

- A. EOC Management (safety, risk assessments, security, etc.)
- B. Managing Medical Equipment Risks
- C. Managing Utility Systems (medical gas, water, & vacuum systems, etc.)
- D. Emergency Electrical Power Sources (generators, emergency lighting, etc.)
- E. Managing Hazardous Materials & Wastes
- F. EPA Laws and Standards
- G. OSHA & HAZWOPER Requirements
- H. Industrial/Agricultural Chemical Decontamination
- I. Life Safety and Egress (NFPA 101-2000, NFPA 99, etc.)

IV. Terrorism, Weapons of Mass Destruction, & Pandemic (15%)

- A. Planning For Terrorism
- B. Terrorism Agents
- C. Nuclear Devices and Incident Response
- D. Pandemic Planning
- E. Cyber Security

V. Other Emergency Management Concepts (5%)

- A. Current events and new developments
- B. Lessons learned from previous events

CHEP Sample Questions

1. Which concept relates to the number of individuals an incident supervisor can manage effectively?
 - a. Delegation of authority
 - b. Span of control*
 - c. Form follows function
 - d. Unity of command

2. Which Command Staff position monitors conditions and develops measures for protecting the health of all assigned personnel?
 - a. The Public Information Officer
 - b. The Liaison Officer
 - c. The Operations Section Chief
 - d. The Safety Officer*

3. Which incident facility serves as the location where personnel and equipment are kept while waiting for tactical assignment?
 - a. Disaster compound
 - b. Helicopter support base
 - c. Incident command center
 - d. Staging area *

4. An effective span of control during incidents may vary from three to seven, which ratio of supervisor to reporting elements is recommended?
 - a. One supervisor to four reporting elements
 - b. One supervisor to five reporting elements*
 - c. One supervisor to six reporting elements
 - d. One supervisor to seven reporting elements

Certified Patient Safety Officer (CPSO) Overview

IBFCSM developed the Certified Patient Safety Officer (CPSO) designation in 2006. The CPSO credential supports a systematic approach to lead efforts to ensure the safety and welfare of patients. The CPSO designations would be appropriate for healthcare executives, risk managers, quality coordinators, nursing supervisors, safety directors, patient safety officers, consultants, physicians, emergency department personnel, pharmacy professionals, biomedical equipment specialists, and other qualified healthcare professionals. The CPSO Exams contains at least 100 multiple choice test questions. The exam focuses on six functional areas: (1) Program design, (2) Patient safety management tools, (3) Patient safety risks and hazards, (4) Standards & organizations, and (5) New developments and special topics. Up to 50% of exam items may require critical thinking or analysis. Up to 15% of the exam may be developed from areas not on the exam outline.

CPSO Exam Outline

I. Program Design, Leadership, & Management

- A. Leadership Responsibilities
- B. Safety Culture Activities
- C. Risk Management & Patient Safety
- D. Quality Improvement Processes
- F. Environment of Care Issues
- G. Staff Education and Training
- H. Medical Staff Credentialing
- I. Patient Safety Program Interfacing
- J. Information, Reporting, and Analysis Activities
- K. Patient Safety Goals
- L. Litigation Risks
- M. Emergency Management

II. Patient Safety Management Tools

- A. Safety Systems and Cultures
- B. Effective Communication with Patients
- C. Patient Education Activities
- D. Visitor Safety
- E. Staff Safety, Training, & Education
- F. Open and Closed Systems
- G. Incident Investigation s& Sentinel Events
- H. Root Cause Analysis (RCA) & Improvement Methods
- I. Failure Mode & Effect Analysis
- J. Staff Communications

III. Patient Safety Risks and Hazards

- A. Slip, Trip, & Fall Prevention
- B. Negligent Care, Failure to Treat
- C. Medication Errors
- D. Improper Diagnosis
- E. Patient Identification
- F. Bed Safety & Bed Sores
- G. Patient Moving & Positioning
- H. Suicide & Elopement
- I. Wrong Site Surgery
- J. Infection Control
- K. Restraint Safety
- L. Operating Room Safety
- M. Anesthetic Gases
- N. Life Safety & Evacuation
- O. Construction Safety
- P. Housekeeping Effectiveness
- Q. Medical Equipment Safety & Reliability
- R. Security & Violence Risks
- S. Infant Abduction

IV. Standards & and Patient Safety Organizations

- A. The Joint Commission & Other Accreditation Standards
- B. The Centers for Medicare & Medicaid Services
- C. The Department of Veterans Affairs & Department of Defense Initiatives
- D. The Food and Drug Administration (FDA)
- E. The Nuclear Regulatory Commission (NRC)
- F. The American Hospital Association (AHA)
- G. The Centers for Disease Control and Prevention (CDC)
- H. The Institute of Medicine (IOM)
- I. The Agency for Healthcare Research and Quality (AHRQ)
- J. Association of Healthcare System Pharmacists (AHSP)
- K. Institute of Safety Medication Practices (ISMP)
- L. ECRI and USP

V. New Developments and Special Topics

- A. Nursing and Other Healthcare Personnel Shortages
- B. Terrorism Response such as Triage, Treatment, & Decontamination
- C. General Safety, Community Safety & Disaster Response
- D. Diseases, Infectious Outbreaks, & Epidemics

Exam Study Resources

1. To Do No Harm, Jossey-Bass Publishers, 2005
2. The Essential Guide for Patient Safety Officers, Joint Commission Resources, 2009
3. Healthcare Hazard Control and Safety Management, 3rd Edition, Taylor and Francis, 2014
4. Principles of Risk Management and Patient Safety, Jones & Bartlett, 2011

CPSO Sample Questions

1. Which term does the Institute of Medicine (IOM) use to describe a patient injury resulting from poor medical management rather than underlying disease?
 - a. An adverse event*
 - b. Near miss
 - c. An error
 - d. An incidental injury

2. Which of the following would be a model for culture change that focuses on factors other than those involved in a patient caregiver event?
 - a. The Swiss-Cheese Model
 - b. The Blunt and Sharp End Process*
 - c. Hindsight Bias
 - d. Hazard Analysis

3. Which of the following would be the primary purpose for identifying and analyzing a medical error that does not produce any patient injury or harm?
 - a. To report the error to state medical and nursing boards
 - b. To identify and hold accountable the person or persons responsible
 - c. To notify the liability insurance carrier about possible future adverse events
 - d. Help identify flaws within the system and any associated sub systems*

4. Which of the following actions would contribute the most to reducing risks of organizational acquired infections in a hospitalized patient?
 - a. Use disposable medical supplies at all times in treatment areas
 - b. Establish a multi-disciplinary infection control committee to evaluate risks
 - c. Require staff to follow established hand sanitizing protocols*
 - d. Implement appropriate the CDC isolation precaution(s) as necessary

Certified Product Safety Manager (CPSM) Overview

The CPSM designation was established by IBFCSM in 1980 to focus on the importance that safety engineering, effective management practices, and system methods can improve the field of product safety. The program stresses the importance of identifying, evaluating hazards, and reducing risks involving development, manufacture, distribution, and maintenance of products of all types during their total life cycle. Product safety management has world-wide implications because of our global economy. The CPSM credential is a viable option for any professional working in a product safety environment including those with responsibilities in traditional settings and those serving in emerging fields such as pharmaceuticals, biologics, medical equipment production, food manufacturing, electronics, import/export companies, and consulting. CPSM Candidates should contact IBFCSM for additional information about CPSM Self-Study Materials and other study references.

CPSM Exam Outline

- I. Product Safety Laws, Statutes, Regulations, and Consensus Standards (20% of Questions)
- II. Product Liability, Warranties, Litigation, and Insurance Issues (20% of Questions)
- III. Enforcement Actions of CPSC, FDA, and Other Agencies (10% of Questions)
- IV. Use of Analytical Methods, Human Factors, And System Safety Techniques (25% of Questions)
- V. Organization, Operation, And Auditing Of Product Safety Functions (20% of Questions)
- IV. Special Topics Including Medical Devices, Food Safety, And Imports (5% of Questions)

Suggested Study References

1. Basic Guide To System Safety; 2nd Edition; Vincoli, J, Wiley Inter-Science; Hoboken, NJ, 2006
2. Products Liability, 7th Ed, Owen, G. & Phillips, J, Thomson West Publishing, St. Paul, MN, 2003
3. Product Safety Management Guidelines, 2nd Ed. Laing, P; Editor, NSC, Chicago, IL, 1996

CPSM Sample Questions

1. Which statement best describes the reason or reasons for a product legal liability claim?
 - a. The misuse or poor application of safe products
 - b. Design, manufacture, distribution, or sale of products*
 - c. Purchase and use of illegal products
 - d. Ownership and distribution of dangerous products

2. Which statement best describes the fundamental philosophy of a *system safety process*?
 - a. A system approach requires a complete safety staff including analysts
 - b. System safety methods emphasize a reactive approach rather than a proactive approach to risk
 - c. Complexity of safety systems requires a safety manager experienced in systems
 - d. System safety approaches always improve the bottom line*

3. Which of the following statements is most accurate as related to a manufacturer's duty to warn users about a product?
 - a. Duty exists for products designated as hazardous by a regulatory/consensus organization
 - b. Duty ends in most situations once the product has been sold*
 - c. Duty to warn exists after the sale of the product
 - d. Duty can be waived with a properly developed disclaimer

4. Which of the following is the key issue about the *general theory of negligence* in product safety?
 - a. Reasonableness of the manufacturer's conduct at the time the product left its hands*
 - b. Reasonableness of the product in the environment for which it was designed
 - c. Reasonableness of product usage prior to an incurred injury
 - d. Availability to the manufacturer of reasonably safe alternative product designs

Certified Emergency and Disaster Professional (CEDP) Overview

IBFCSM, established the CEDP credential in September 2014 to meet the need for a practical but “professional credential” for those working in the public, private, and governmental positions related to emergency/disaster management. Candidates without a four-year degree can qualify by documenting relevant experience, training, and achievement. Personnel serving in any of the following related functions may qualify to sit for the CEDP Exam: (1) emergency/disaster managers or coordinators, (2) public health department personnel including infection prevention professionals, (3) federal, state, and local governmental personnel performing emergency related responsibilities, (4) hazardous material managers, (5) first responders including fire and law enforcement professionals, (6) emergency medical technicians, (7) emergency, safety, and management consultants, (8) occupational safety and health managers, (9) hazard control professionals, (10) private security officers, (11) emergency volunteers, and (12) any others who work in functions related to emergency and disaster management. The exam addresses emergency planning, management, response, and mitigation concepts. It also addresses emergency related standards and/or best practices from reliable sources including organizations such as: FEMA, DHS, DHHS, NFPA, ASTM, ANSI, NRC, CDC, EPA, and OSHA. The CEDP Exam also addresses the current FEMA planning objectives.

CEDP Exam Outline

- A. History of Emergency Management and Disaster Response
- B. Federal Legislation Relevant to Emergency Management and Homeland Security
- C. Presidential Directives Related to Emergency Management
- D. Regulatory Agencies (DHS, FEMA, DHHS, OSHA, EPA, DOT, FCC, CDC, ASTDR, NIOSH, etc.)
- E. Voluntary and Standards Agencies (NFPA, ANSI, ASTM, ASHRAE, Red Cross, etc.)
- F. Emergency Management and All-Hazards Planning (Emergency Operations Plan)
- G. Business Continuity & NFPA 1600
- H. Emergency Planning & NIMS
 - I. Understanding Systems and Standardization
- J. Incident Command Systems (ICS) Organization and Structure
- G. Communication Support (Telecommunications Service Priority (TSP) Program, Government Emergency Telecommunications Service (GETS) Program, and Wireless Priority Service (WPS))
- H. Incident Action Planning & Multi-Agency Coordination (Area & Unified Commands)
- I. Weather and Other Natural Disasters (floods, thunderstorms, tropical storms, earthquakes, etc.)
- J. Technological and Transportation Emergencies
- K. Civil Disturbances and Bomb Threats
- L. Information Technology and Cyber Attack Emergencies
- M. Related Emergency Concepts and Terms (safety, management, organizational culture, etc.)
- N. OSHA Emergency Terms & National Response Framework Terms
- O. Managing Hazardous Materials & Wastes
- P. EPA Laws and Standards
- Q. OSHA & HAZWOPER Requirements
- R. Industrial/Agricultural Chemical Decontamination
- S. Life Safety and Egress (NFPA 101-2000, NFPA 99, etc.)
- T. Planning for Terrorism & Terrorism Agents
- U. Pandemic Planning
- V. Current Events and New Developments
- W. Lessons Learned from Previous Events

CEDP Sample Questions

1. Which concept relates to the supervisory structure of the organization and pertains to the number of individuals or resources one incident supervisor can manage effectively?
 - a. Delegation of authority
 - b. Span of control*
 - c. Form follows function
 - d. Unity of command

2. Which agency regulates transport of hazardous materials through pipelines?
 - a. The Occupational Safety and Health Administration
 - b. The Department of Commerce
 - c. The Environmental Protection Agency
 - d. The Department of Transportation*

3. Homeland Security Presidential Directive 5 required DHS to create which of the following?
 - a. Federal Response Plan
 - b. Incident Command System
 - c. National Incident Management System*
 - d. Integrated Emergency Management System

4. Which of the following actions would have the most impact on how an organization responds to emergency situations in their community?
 - a. Conducting and evaluating disaster drills as required by DHS and FEMA
 - b. Conducting a thorough Hazard Vulnerability Analysis to ensure proper planning*
 - c. Appointing an organizational emergency coordinator as a liaison with the local EMA
 - d. Appointing a representative to participate in LEPC meetings and exercises

5. Which Federal publication compiles for easy use DHS and FEMA standards or guidelines?
 - a. The Congressional Record (CR)
 - b. The Code of Federal Regulations (CFR)*
 - c. The Resource Conservation and Recovery Act (RCRA)
 - d. The Federal Register (FR)

Contact IBFCSM for additional information about this new credential and availability of Self-Study Materials.

Certified in Healthcare Safety – Nursing (CHSN) Overview

IBFCSM developed the CHSN designation in 2014 to provide nursing personnel with an opportunity to earn a practical safety credential that addresses both patient safety and nursing occupational safety issues. CHSN Exams contain at least 100 multiple choice questions. A qualified candidate for the CHSN credential must hold one of the following nursing designations:

Registered Nurse (RN) – Master Level Candidate

Licensed Practical Nurse (LPN) – Master or Associate Level Candidate Depending on Qualifications

Licensed Vocational Nurse (LVN) – Master or Associate Level Candidate Depending on Qualifications

Certified Nursing Assistant/Aide (CAN) – Associate Level Candidate Only

CHSN Exam Outline

I. Patient Safety Principles (20%)

- A. Quality Improvement Processes
- B. Environment of Care Issues
- C. Staff Education and Training
- D. Information, Reporting, and Analysis Activities
- E. Patient Safety Goals
- F. Emergency Management
- G. Safety Systems and Cultures
- H. Effective Communication with Patients
- I. Staff Safety, Training, & Education
- J. Root Cause Analysis & Improvement Methods
- K. Staff Communications

II. Patient Safety Risks (20%)

- A. Slip, Trip, & Fall Prevention
- B. Negligent Care & Failure to Treat
- C. Medication Errors
- D. Improper Diagnosis
- E. Patient Identification
- F. Bed Safety & Bed Sores
- G. Patient Moving & Positioning
- H. Suicide & Elopement
- I. Wrong Site Surgery
- J. Infection Control
- K. Restraint Safety
- L. Operating Room Safety
- M. Anesthetic Gases
- N. Life Safety & Evacuation
- O. Housekeeping Effectiveness
- P. Medical Equipment Safety & Reliability
- Q. Security & Violence Risks
- R. Infant Abduction
- S. Healthcare Acquired Infections
- T. Opportunistic Infections

III. Patient Safety Standards & Organizations (10%)

- A. The Joint Commission & Other Accreditation Standards
- B. The Centers for Medicare & Medicaid Services
- C. The Food and Drug Administration (FDA)
- D. The Nuclear Regulatory Commission (NRC)
- E. The American Hospital Association (AHA)
- F. The Centers for Disease Control and Prevention (CDC)
- H. The Institute of Medicine (IOM)
- I. The Agency for Healthcare Research and Quality (AHRQ)
- J. The Association of Healthcare System Pharmacists (AHSP)
- K. The Institute of Safety Medication Practices (ISMP)
- L. ECRI

IV. Environmental and Occupational Safety (25%)

- A. Occupational and Environmental Safety Management Principles
- B. General Management Principles
- C. Occupational Safety and Health Administration (OSHA)
 - 1. OSH Act and General Duty Clause (Dangerous Drugs, TB, Lasers, Workplace Violence)
 - 2. Healthcare Related Standards
 - (a) Hazard Communication (29 CFR 1910.1200)
 - (b) Respiratory Standard (29 CFR 1910.134)
 - (c) Electrical Standards (29 CFR 1910.303)
 - (d) Bloodborne Pathogens (29 CFR 1910.1030)
 - (e) Healthcare E-Tools (OSHA Website)
- D. The Environmental Protection Agency (40 CFR)
- E. The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)
- F. Nuclear Regulatory Commission (10 CFR)
- G. Food and Drug Administration (21 CFR)
- H. Department of Health and Human Services (42 CFR) – NIOSH, CMS, AHRQ, ATSDR, etc.)
- I. Physical Hazards (Electrical, machine, equipment, tools, noise, radiation, etc.)
- J. Chemical Hazards (Disinfectants, pesticides, solvents, dangerous drugs, gases, etc.)
- K. Ergonomic/Environmental Hazards (Repetitive tasks, falls, musculoskeletal disorders, etc.)
- L. Biohazards (Legionella, waste handling, sharps exposures, construction risks, etc.)
- M. Psycho-Social Hazards (Workplace violence, security, substance abuse, stress, shift work, etc.)
- N. Healthcare Clinical and Support Department Safety

V. Voluntary and Standards Organizations (25%)

- A. National Fire Protection Association (NFPA)
- B. American National Standards Institute (ANSI) and American Society of Testing Materials (ASTM)
- C. American Society of Heating, Refrigerating, & Air Conditioning Engineers (ASHRAE)
- D. Underwriters Laboratory (UL) and Factory Mutual (FM)
- E. American Conference of Government Industrial Hygienists (ACGIH)
- F. Joint Commission (EOC, Life Safety, and Emergency Standards)
- G. American Osteopathic Association (AOA), Det Norske Veritas (DNV), and CMS
- H. Life Safety (NFPA 101) and Healthcare Facilities (NFPA 99)
- I. Fire Safety Management
- J. Infection Control and Prevention
- G. Pandemic Planning and Infection Related Medical Surge Issues

CHSN Study References

1. To Do No Harm, Jossey-Bass Publishers, 2005
2. The Essential Guide for Patient Safety Officers, Joint Commission Resources, 2009
3. Healthcare Hazard Control and Safety Management, 3rd Edition, Taylor and Francis, 2014
4. Principles of Risk Management and Patient Safety, Jones & Bartlett, 2011
5. Contact IBFCSM for additional information about self-study materials.

CHSN Sample Questions

1. Which of the following best describes the benefit of implementing a patient lifting program?
 - a. Improved patient quality of care*
 - b. Reduced workers' compensation costs
 - c. Greater resident satisfaction
 - d. Increased morale for employees
2. Which NFPA publication exclusively addresses healthcare facility topics?
 - a. NFPA 13
 - b. NFPA 72
 - c. NFPA 99*
 - d. NFPA 101
3. Which control measure should be considered first when protecting workers from chemical airborne contaminants?
 - a. Isolating the hazard far from most workers
 - b. Providing proper local and general ventilation*
 - c. Requiring use of supplied air respirators immediately
 - d. Conducting periodic monitoring in all exposure areas
4. Which of the following processes is considered a rapid change method?
 - a. Fishbone Causation Analysis
 - b. Plan-Do-Check-Act*
 - c. Root Cause Analysis
 - d. Failure Mode & Effect Analysis
5. Which of the following statements describes the mission of an environmental services function?
 - a. Ensure the entire facility looks clean, presentable, and shiny at all times
 - b. Manage the many polluted indoor and outdoor environments of healthcare organizations
 - c. Provide scheduled and on call cleanup services to all departments around the clock
 - d. Clean for safety and health first by controlling pathogenic microorganisms*
6. Which of the following elements of a voluntary incident reporting system is most vital to its success?
 - a. Standardization
 - b. Feedback capability*
 - c. Accountability
 - d. Comprehensive

Certified in Healthcare Safety – Long Term Care (CHS-LTC)

The CHS-LTC credential was established in 2014 to focus on the importance of using management principles to improve the safety performance of nursing care facilities. The CHS-LTC credential would be appropriate for Candidates desiring to improve their professional practice in long term care facilities. Earning the CHS-LTC credential provides recognition and documents achievement. Long term care and other nursing care facilities need certified personnel that understand how proactive safety practice supports operational effectiveness, improves resident care processes, and reduces organizational costs. The textbook: Healthcare Hazard Control and Safety Management, can help CHS-LTC Candidates prepare for the CHSP Exam. The book is available for purchase from the Board. Contact IBFCSM for information about other self-study materials.

CHS-LTC Examination Outline

I. Safety Management Principles (25%)

1. Accident, Injury, and Illness Prevention and Accident Costing
2. Inspections, Audits, Surveys, Investigations, and Root Cause Analysis
3. Safety Policies, Safety Plans, and Reporting Procedures
4. Understanding Safety Cultures
5. Management and Leadership Concepts, and Principles
6. Human Relations and Understanding Organizational Cultures
7. Managerial Techniques (Management by Exception, Migrating Decision Making, etc.)

II. Government Agencies and Standards (25%)

- A. Occupational Safety and Health Administration (OSHA)
 1. OSH Act and General Duty Clause (Dangerous Drugs, TB, Lasers, Workplace Violence)
 2. Healthcare Related Standards
 - (a) Hazard Communication (29 CFR 1910.1200)
 - (b) Respiratory Standard (29 CFR 1910.134)
 - (c) Controlling Hazardous Energy (29 CFR 1910.147)
 - (d) Permit Confined Spaces (29 CFR 1910.146)
 - (e). Air Contaminants (29 CFR 1910, Subpart Z) (g) Electrical Standards (29 CFR 1910.303)
 - (f) Bloodborne Pathogens (29 CFR 1910.1030)
 - (g) Nursing Home and Healthcare E-Tools (OSHA Website)
- B. Resource Conservation & Recovery Act (RCRA) and Universal Waste Act (UWA)
- C. Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)
- D. Food and Drug Administration (21 CFR)
- E. Department of Health and Human Services (42 CFR) – NIOSH, AHRQ, etc.

III. Long Term Care Facility Hazard Control (20%)

- A. Physical Hazards (Electrical, machine, equipment, tools, noise, radiation, etc.)
- B. Chemical Hazards (Disinfectants, pesticides, solvents, dangerous drugs, gases, etc.)
- C. Ergonomic/Environmental Hazards (Repetitive tasks, falls, musculoskeletal disorders, etc.)
- D. Biohazards (Legionella, waste handling, sharps exposures, construction risks, etc.)
- E. Psycho-Social Hazards (Workplace violence, security, substance abuse, stress, shift work, etc.)
- E. Nursing Facility Support Department Safety

IV. Voluntary and Standards Organizations (15%)

- A. National Fire Protection Association (NFPA)
- B. American National Standards Institute (ANSI)
- C. American Society of Testing Materials (ASTM)
- D. American Society of Heating, Refrigerating, & Air Conditioning Engineers (ASHRAE)
- E. Underwriters Laboratory (UL)
- F. Factory Mutual (FM)
- G. American Conference of Government Industrial Hygienists (ACGIH)

V. CMS Standards, Fire Safety, & Infection Control (20%)

- A. Fire Safety and Emergency Management
- B. CMS Standards (Nursing Homes)
- C. NFPA 101, Life Safety and NFPA 99, Healthcare Facilities
- D. Fire Safety Management and Other Relevant NFPA Publications
- E. CDC Infection Control Guidelines
- F. Nursing Facility Acquired Infections
- G. Opportunistic Infections (Aspergillus and Pseudomonas)

CHS-LTC Sample Questions

1. Which of the following best describes the benefit of implementing a resident lifting program?
 - a. Improved quality of care*
 - b. Reduced workers' compensation costs
 - c. Greater resident satisfaction
 - d. Increased morale for employees

2. Which NFPA publication exclusively addresses healthcare facility topics?
 - a. NFPA 13
 - b. NFPA 72
 - c. NFPA 99*
 - d. NFPA 101

3. Which control measure should be considered first when protecting workers from chemical airborne contaminants?
 - a. Isolating the hazard far from most workers
 - b. Providing proper local and general ventilation*
 - c. Requiring use of supplied air respirators immediately
 - d. Conducting periodic monitoring in all exposure areas

4. Which dietary hazard control would be least effective in preventing potential food-borne illnesses?
 - a. Requiring food preparation workers to wash hands frequently
 - b. Maintaining hot foods on the serving line at 140F or higher
 - c. Providing a supply of cloth towels to wipe food prep surfaces frequently*
 - d. Maintaining coolers and refrigerators at 40F or lower

Certified in Healthcare Safety – Environmental Services (CHS-EVS)

The CHS-EVS credential was established in 2014 to focus on the importance of using management principles to improve the safety performance of hospitals, nursing care facilities, and other healthcare locations. The CHS-EVS credential would be appropriate for Candidates desiring to improve their safety contributions during their professional practice of cleaning and maintaining built environments. Earning the CHS-EVS credential provides recognition and documents commitment to cleaning for safety and health. Hospitals, long term care and other nursing care facilities need certified personnel that understand how proactive safety practice supports operational effectiveness, improves resident care processes, and reduces organizational costs. The textbook: Healthcare Hazard Control and Safety Management, can help CHS-EVS Candidates prepare for the CHS-EVS Exam. The book is available for purchase from the Board. Contact IBFCSM for information about other self-study materials.

CHS-EVS Examination Outline

I. Environmental Services and Safety Management Principles (30%)

- A. Accident, Injury, and Illness Prevention
- B. Safety Inspections, Surveys, and Investigations
- C. Safety Policies, Plans, and Reporting
- D. Understanding Safety Cultures
- E. Management Principles and Human Relations
- F. Environmental Services: A True Profession
- G. Cleaning for Safety and Health by Sanitizing and Disinfecting
- H. Sick Building Causes
- I. Elements of the Cleaning Process
- J. Slip, Trip, & Fall Prevention

II. Government Agencies and Standards (20%)

- A. Occupational Safety and Health Administration (OSHA)
 - (1) Hazard Communication (29 CFR 1910.1200)
 - (2) Respiratory Standard (29 CFR 1910.134)
 - (3) Controlling Hazardous Energy (29 CFR 1910.147)
 - (4) Permit Confined Spaces (29 CFR 1910.146)
 - (5). Air Contaminants (29 CFR 1910, Subpart Z) (g) Electrical Standards (29 CFR 1910.303)
 - (6) Bloodborne Pathogens (29 CFR 1910.1030)
 - (g) Nursing Home and Healthcare E-Tools (OSHA Website)
- B. Resource Conservation & Recovery Act (RCRA) and Universal Waste Act (UWA)
- C. Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)
- D. Food and Drug Administration (21 CFR)
- E. Department of Health and Human Services (42 CFR) – NIOSH, AHRQ, etc.

III. Hazard Identification, Evaluation, and Control (20%)

- A. Physical Hazards (Electrical, machine, equipment, tools, noise, radiation, etc.)
- B. Chemical Hazards (Disinfectants, pesticides, solvents, dangerous drugs, gases, etc.)
- C. Ergonomic/Environmental Hazards (Repetitive tasks, falls, musculoskeletal disorders, etc.)
- D. Biohazards (Legionella, waste handling, sharps exposures, construction risks, etc.)
- E. Psycho-Social Hazards (Workplace violence, security, substance abuse, stress, shift work, etc.)
- E. Departmental Safety Hazards

IV. Voluntary and Standards Organizations (15%)

- A. National Fire Protection Association (NFPA)
- B. American National Standards Institute (ANSI)
- C. American Society of Testing Materials (ASTM)
- D. American Society of Heating, Refrigerating, & Air Conditioning Engineers (ASHRAE)
- E. Underwriters Laboratory (UL) and Factory Mutual (FM)
- F. American Conference of Government Industrial Hygienists (ACGIH)

V. Fire Safety, Emergency Management, & Infection Control (15%)

- A. Fire Safety
- B. Emergency Management
- C. CMS Standards
- D. CDC Infection Control Guidelines
- E. Facility Acquired Infections and H. Opportunistic Infections (Aspergillus and Pseudomonas)

CHS-EVS Sample Questions

1. Which of the following would be the best reason to conduct trending analysis?
 - a. Determining accident costs
 - b. Determining training needs
 - c. Identifying problem areas*
 - d. Analyzing work standards

2. A supervisor can best help safety efforts by doing which of the following?
 - a. Purchasing safe equipment and tools
 - b. Training employees on safe work procedures*
 - c. Meeting with the hospital safety manager
 - d. Cooperating other department on safety matters

3. According to Hazard Communication Standard, who has the responsibility for having hazardous material information available to the employees, upon request?
 - a. The manufacturer
 - b. The employer*
 - c. The hospital safety officer
 - d. The selling company

4. What is the first action that should be taken when a fire is discovered at the facility?
 - a. Find the closest fire extinguisher
 - b. Activate the fire alarm*
 - c. Notify security
 - d. Close all of the doors and windows

Fire Safety Management (FSM) Overview

IBFCSM developed the FSM I as an endorsement designation to the Certified Healthcare Safety Professional (CHSP) and Certified Healthcare Emergency Professional (CHEP) credentials. Candidates for the FSM designation must hold the CHSP or CHEP in good standing. Any CHSP or CHEP member can apply to sit for the FSM exam by completing an on-line application and paying the current examination fee. There is no application fee. The FSM exam is comprehensive in scope and contains at least 100 multiple choice questions. The exam is challenging but does not contain questions requiring math or engineering calculations. The exam content has been developed with the assistance of practicing professionals and subject matter experts. Contact IBFCSM for information about self-study materials.

FSM Exam Outline

I. Healthcare Fire Safety Fundamentals (20%)

- A. Fire Development Stages and Classes of Fire
- B. Prevention Activities, Fire Planning & Egress
- C. Portable Fire Extinguishers and Staff Training
- D. Healthcare Fire Hazards & Flammable/Combustible Materials
- E. Bonding, Grounding, and Electrical Fire Hazards
- F. Life Safety, Fire Drills, and Egress
- G. Fire and Smoke Confinement
- H. Deficiencies and Fire Safety Evaluations
- I. Statement of Conditions and Interim Life Safety
- J. Uniform Fire Code (NFPA 1) and International Fire Code (ICC)

II. NFPA Standards and Codes (45%)

- A. Life Safety and Egress (NFPA 101, 101A)
- B. Fire Alarm Systems (NFPA 72)
- C. Ventilating System Dampers and Controls (NFPA 90A)
- D. Smoke Control (NFPA 92 and NFPA 92A)
- E. Automatic Sprinkler Systems (NFPA 25)
- F. Fire Hoses (NFPA 1962)
- G. Portable Fire Extinguishers (NFPA 10)
- H. Kitchen Hood Extinguishing (NFPA 96)
- I. Carbon Dioxide Extinguishing Systems (NFPA 12)
- J. Inspection, Testing, & Maintenance of Water-Based Protection Systems (NFPA 25)
- K. Healthcare Facility Requirements (NFPA 99)
- L. Electrical Power Standby Power Systems (NFPA 110, NFPA 111)
- M. Flammable and Combustible Liquids (NFPA 30)
- N. Installation of Sprinkler Systems (NFPA 13)
- O. Fire Protection for Laboratories Using Chemicals (NFPA 45)
- P. Bulk Oxygen Systems (NFPA 50)
- Q. Standard for Fire Doors and Fire Windows (NFPA 80)
- R. Standard for Laser Fire Protection (NFPA 115)
- S. Installation of Smoke Door Assemblies (NFPA 105)
- T. Standard for Fire Safety and Emergency Symbols (NFPA 170)
- U. Standard for Fire Walls and Fire Barrier Walls (NFPA 221)
- V. Healthcare Facilities (NFPA 99)
- W. Welding, Cutting, and Brazing (NFPA 51B)

III. Healthcare Fire Hazards and Accreditation Standards (25%)

- A. Environment of Care Standards
- B. Fire Safety & Life Safety Standards
- C. Emergency Management Standards
- D. Departmental Hazards and Prevention
 - (1) Patient Care Units
 - (2) Food Services, Environmental Services, and Laundry Operations
 - (3) Surgical Fires & Lasers and Radiology (MRI Fire Safety)
 - (4) Maintenance and Facility Engineering
 - (5) Clinical Engineering Department
 - (6) Laboratories and Pharmacies
 - (7) Other Clinical Department
 - (8) Administrative Areas
- E. Fire Hazard Locations and Issues
 - (1) Break rooms and visitor areas
 - (2) Medical and compressed Gases
 - (4) Flammable and combustible storage
 - (5) Smoking policy enforcement
 - (6) Electrical fire safety
 - (7) Sanitizing hand solutions
 - (8) Construction fire safety
 - (9) Materials storage
 - (10) Patient and staff evacuations
 - (11) Incident command systems
 - (12) Emergency operations plans
 - (13) Hazardous material incidents
 - (14) Wildfires and other natural disasters

IV. Governmental & Voluntary Organizations (10%)

- A. Occupational Safety and Health Administration (OSHA)
- B. Environmental Protection Agency (EPA)
- C. Centers for Medicaid and Medicare Services (CMS)
- D. Federal Emergency Management Agency (FEMA)
- E. Department of Transportation (DOT)
- F. American Society Testing Materials (ASTM)
- G. American National Standards Institute (ANSI)
- H. Underwriters Laboratory (UL) and Factory Mutual (FM)
- I. Society of Fire Protection Engineers (SFPE)
- J. American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE)
- K. American Welding Society (AWS)
- L. Compressed Gas Association (CGA)
- M. Centers for Medicaid and Medicare Services (CMS)

FSM Sample Questions

1. What is the best method of identifying potential workplace fire and related hazards?
 - a. Conducting comprehensive work site analyses and surveys*
 - b. Reviewing hazard control publications and journals
 - c. Analyzing accident and injury data for the five previous years
 - d. Understanding the application of regulatory standards and codes

2. Which of the following statements about carbon monoxide is most accurate?
 - a. An odorless gas that inhibits the blood from carrying oxygen to the brain*
 - b. An indoor pollutant generated from the arcs of electrical motors
 - c. OSHA does not regulate carbon monoxide exposures
 - d. It can cause breathing problems but is not fatal

3. What statement describes a device known as a ground fault circuit interrupter (GFCI)?
 - a. An over-current device that is designed to protect equipment only
 - b. An undercurrent device designed to protect conductors within the circuit
 - c. A device used in wet areas to protect humans from electrical shock*
 - d. Any device that protects computers during thunderstorms

4. What type of fire extinguisher, known to be effective on computer fires, has been declared as environmentally dangerous?
 - a. Carbon dioxide
 - b. Dry powder
 - c. Type: ABC
 - d. Halon*

5. What National Fire Protection Association (NFPA) publication addresses electrical grounding requirements for patient areas in healthcare facilities?
 - a. NFPA 70
 - b. NFPA 99*
 - c. NFPA 101
 - d. NFPA 110