

ATSM-2540: SMART ICRA

Cuyahoga Community College

Viewing: ATSM-2540 : SMART ICRA

Board of Trustees:

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Academic Term:

Fall 2019

Subject Code

ATSM - Applied Ind Tech- Sheetmetal

Course Number:

2540

Title:

SMART ICRA

Catalog Description:

Designed to promote the awareness of infection control in existing health-care facilities. Infection control techniques used to prevent the spread of infectious agents to other patients, other areas of the facility and to the workers themselves, will be emphasized. Also covers the types of hazards presented to workers in health-care facilities.

Credit Hour(s):

1

Lecture Hour(s):

1

Requisites

Prerequisite and Corequisite

Departmental approval: admission to Sheet Metal Worker's apprenticeship program.

Outcomes

Course Outcome(s):

Recognize the various types of hazardous materials that may be present while working in a health-care facility and identify patient rights covered under the Health Insurance Portability and Accountability (HIPAA) act.

Objective(s):

1. List and define the terms related to Infection Control Risk Assessment (ICRA).
2. Identify the reason that health care facilities are unique work environments for the Sheet Metal, Air and Rail and Transportation (SMART) worker.
3. Explain the term "immune compromised".
4. Discuss how construction and renovation in a health care facility can lead to hospital acquired infections.
5. Identify the personal responsibilities of a SMART member working in a health care facility.
6. Discuss patient privacy under the HIPAA law for the protection of the patient and the worker.

Course Outcome(s):

Discuss the function and responsibilities of the ICRA team including ICRA forms and permits and interim life safety measures and describe fire control measures.

Objective(s):

1. List and define terms related to ICRA.
2. Use the ICRA form to determine the type, group, and class of construction activity.
3. Identify information related to the ICRA permit.

4. Describe the Interim Life Safety Measures (ILSM) including the purpose.
5. Describe fire control measures used in health care facilities.

Course Outcome(s):

Discuss work protocol in the ICRA environment including safety considerations, inspections, material and personnel routing, and barrier requirements.

Objective(s):

1. Discuss safety considerations including signage, facility hazards, emergency evacuations, and worker responsibility.
2. Explain the importance of daily inspections, monitoring, and documentation.
3. List and explain the procedures that are followed for material, worker, and patient routing throughout the health care facility.
4. Explain practices employed for protection of existing finishes and building elements.

Course Outcome(s):

Utilize personal protective equipment (PPE) to minimize and control the exposure to hazardous materials to construction personnel working in a health care facility.

Objective(s):

1. Identify different types of PPE.
2. Discuss OSHA regulations pertaining to PPE.
3. Match the type of PPE worn to the hazard(s) present in a health care facility.
4. Discuss the use of PPE to properly mitigate the hazard present.

Course Outcome(s):

Utilize patient protective equipment to minimize and control the spread of infectious agents to other areas of the facility.

Objective(s):

1. Explain the difference between PPE and Patient Protective Apparel (PPA).
2. Identify common PPA.
3. Identify the function of an anteroom and use to minimize the spread of contamination in the facility.

Course Outcome(s):

Examine the infection control topics and methods relating to the spread and control of mold and fungus within a health care facility.

Objective(s):

1. Determine what pre-work activities need to be performed before construction/renovation activities can begin.
2. Determine the level of containment needed for each job classification.
3. Demonstrate the use of a High Efficiency Particulate Air (HEPA) machine to maintain a negative air environment.

Course Outcome(s):

Review the key points related to the Occupational Safety and Health Administration OSHA-30 certification including fall protection, electrical safety, and jobsite hazards and communication.

Objective(s):

1. Review the General Duty clause and worker rights as prescribed under the Code of Federal Regulations (CFR) 1910 and 1926.
 2. Identify fall hazards and height triggers and devices including PPE and lifts related to job site worker safety.
 3. Identify electrical hazards and safety procedures related to job site dangers.
 4. Identify "caught in between" and "struck by" hazards and discuss preventative measures.
 5. Identify health hazards found on job sites including silica dust, asbestos, and lead and discuss PPE including respirators used to prevent exposure.
 6. Review safety updates issued by OSHA related to worker safety.
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Methods of Evaluation:

1. Quizzes
2. Tests
3. Participation

Course Content Outline:

1. Hazards and patient rights
 - a. Terminology
 - i. ICRA
 - ii. Chain of infection
 - iii. Infectious agent
 - iv. Matrix
 - v. ILSM
 - vi. HEPA
 - vii. Air pressure differential
 - viii. Designated routes
 - ix. Scope of work
 - x. Remediation
 - xi. Immune compromised
 - b. Hazardous materials and patient rights
 - i. Hazardous materials
 1. Lead
 2. Silica
 3. Asbestos
 4. Chemicals
 5. Biohazards
 6. Infectious agents
 7. Radiation
 8. Magnetic fields
 9. Bacteria
 10. Fungus
 11. Mold
 - ii. Patient rights
 1. Anonymity
 2. Records/charts
 3. Medical and personal and billing
 - a. Oral
 - b. Written
 - c. Elective
 - c. Immune compromised
 - i. Newborn
 - ii. Terminally ill
 - iii. Chemo/radiation treated
 - iv. Transplant patients
 1. Organ
 2. Bone marrow
 - v. Patients with existing diseases
 - d. Renovations: infections
 - i. Materials
 1. Dust
 2. Debris
 3. Waste
 - e. Personal responsibilities
 - i. Professionalism
 1. Conduct
 2. Appearance
 3. Communication
 - ii. Safety

1. Housekeeping
2. Facility
3. Patient
4. General public
- f. Patient privacy
 - i. HIPPA
 - ii. Personal privacy
 - iii. Worker
 1. Patient information
 2. Medical discussions
2. ICRA forms, permits, life safety measures, and fire control
 - a. ICRA terms
 - i. Form
 - ii. Team
 - iii. Construction permit
 - iv. Life safety
 - v. Fire wall
 - vi. Active and passive fire control
 - vii. Fire suppression
 - viii. Fire stop
 - ix. Compartmentalization
 - b. ICRA form
 - i. Competition procedure
 1. Project type
 2. Patient risk group
 3. ICRA matrix
 4. Surrounding project area
 5. Specific site
 6. Related issues
 7. Containment measures
 8. Water damage
 9. Work hours
 10. Facility
 - ii. Construction group
 1. Low risk
 2. Medium risk
 3. Medium to high risk
 4. Highest risk
 - iii. Construction activity
 1. Inspection
 - a. Non invasive
 - b. Minimal disturbance
 2. Small scale
 - a. Short duration
 - b. Moderate to high level dust
 3. Active dust generation
 4. Major duration
 - a. Multiple day work scope
 - b. Barrier construction
 - c. ICRA permit
 - i. Precautions
 - ii. Sign off procedure
 - iii. Job duration
 - iv. Contact information
 - v. Housekeeping
 - vi. Authorization
 - d. ISLM

- i. Purpose
 - 1. Patient safety
 - 2. General public safety
 - ii. Evacuation path identification
 - iii. Containment barriers
 - e. Fire control measures
 - i. Prevention
 - ii. Hot work permit
 - iii. Detection
 - iv. Suppression
 - v. Containment
- 3. Work protocol
 - a. Safety considerations
 - i. Signage
 - 1. Size
 - 2. Placement
 - 3. Language
 - 4. Information
 - ii. Facility hazards
 - 1. Radiation
 - 2. Biohazards
 - 3. Infection
 - 4. Chemicals
 - 5. Asbestos
 - iii. Evacuations
 - iv. Worker responsibility
 - b. Inspection, monitoring, and documentation
 - i. Inspections
 - 1. Barriers
 - 2. Mats
 - 3. HEPA machines
 - ii. Monitoring
 - 1. Air pressure
 - 2. Air samples
 - 3. Patient/public safety
 - iii. Documentation
 - 1. Inspections
 - 2. Records
 - 3. Store/file
 - c. Patient routing
 - i. ISLM
 - ii. Comfort
 - iii. Safety
 - d. Facility protection
 - i. Barriers
 - ii. Covering
- 4. PPE
 - a. Types
 - b. OSHA regulations
 - i. Worker safety
 - ii. Employer responsibility
 - c. PPE/hazard
 - i. Confined space—respirator
 - ii. Personal barrier—infectious waste storage
 - iii. Respirator—dust contamination
 - d. Hazard mitigation
- 5. PPA

- a. PPE versus PPA
 - i. PPE
 - 1. Worker protection
 - 2. OSHA required
 - ii. PPA
 - 1. Patient protection
 - 2. Equipment
 - 3. Apparel
 - b. Types
 - i. Masks
 - ii. Hair protection
 - iii. Gloves
 - iv. Shoe cover
 - v. Scrubs
 - vi. Lab coats
 - c. Disposal
 - i. Bagging
 - ii. Placement
 - d. Ante room
 - i. Function
 - ii. Area separation
6. Mold consideration
- a. Pre work activities
 - i. Inspection
 - ii. Sample identification
 - iii. Isolation
 - iv. Barrier placement
 - b. Containment level
 - i. Small area
 - ii. Midsize area
 - iii. Large/isolated
 - iv. Extensive
 - c. Negative air benefits
 - i. Infection control
 - ii. Respiratory
 - d. HEPA machine
 - i. Set up
 - ii. Operation
 - iii. Air discharge
 - iv. Maintenance
 - v. Machine transport

Resources

Carpenters International Training Fund. *Best Practices in Health Care Construction in Occupied Facilities*. Current edition. Carpenters International Training Fund, 2008.

International Training Institute. *Fire Life Safety Level 1 Technician*. Las Vegas, NV: International Training Institute, 2016.

National Fire Protection Association. *NFPA 101 Life Safety Code*. Quincy, MA: National Fire Protection Association, 2015.

Resources Other

- 1. OSHA.gov
- 2. SMOHIT.gov

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