

ATCT-1340: (ICRA) BEST PRACTICES IN HEALTH CARE CONSTRUCTION

Cuyahoga Community College

Viewing: ATCT-1340 : (ICRA) Best Practices in Health Care Construction

Board of Trustees:

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Academic Term:

Fall 2024

Subject Code

ATCT - Appld Indus Tech - Carpentry

Course Number:

1340

Title:

(ICRA) Best Practices in Health Care Construction

Catalog Description:

This course is 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. An awareness of the types of hazards presented to workers in health-care facilities will be covered as part of the course.

Credit Hour(s):

1

Lecture Hour(s):

1

Requisites

Prerequisite and Corequisite

Departmental approval: Admissions to Carpenter's apprenticeship program.

Outcomes

Course Outcome(s):

Recognize the various types of hazards and hazardous materials that may be present while working in a health-care facility.

Essential Learning Outcome Mapping:

Critical/Creative Thinking: Analyze, evaluate, and synthesize information in order to consider problems/ideas and transform them in innovative or imaginative ways.

Objective(s):

1. Identify the reason that health care facilities are unique work environments for the United Brotherhood of Carpenters (UBC) member.
2. Explain the term "immune compromised".
3. Discuss how construction and renovation in a health care facility can lead to hospital acquired infections.
4. Identify the personal responsibilities of a UBC member working in a health care facility.

Course Outcome(s):

Explain the function and responsibilities of the Infection Control Risk Assessment (ICRA) team and how the ICRA document is used to determine the classification of a work area.

Essential Learning Outcome Mapping:

Critical/Creative Thinking: Analyze, evaluate, and synthesize information in order to consider problems/ideas and transform them in innovative or imaginative ways.

Objective(s):

1. Use the ICRA matrix to determine the job classification for a construction/renovation project in a health care facility.
2. Define the characteristics of the four job classifications for work in a health care facility.
3. Describe why health-care facilities are unique work environments and why extra precautions should be taken while working in them.
4. List and describe the function of the federal regulatory agencies which dictate standards of care to health care facilities.
5. Discuss the make-up and responsibilities of the Infection Control Risk Assessment (ICRA) team and the Interim Life Safety Measures (ILSM) team.

Course Outcome(s):

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

Essential Learning Outcome Mapping:

Critical/Creative Thinking: Analyze, evaluate, and synthesize information in order to consider problems/ideas and transform them in innovative or imaginative ways.

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.

Essential Learning Outcome Mapping:

Critical/Creative Thinking: Analyze, evaluate, and synthesize information in order to consider problems/ideas and transform them in innovative or imaginative ways.

Objective(s):

1. Explain the difference between PPE and Patient Protective Apparel (PPA).
2. Identify common PPA.
3. Demonstrate how to utilize, and dispose of PPA.
4. Construct an anteroom to minimize the spread of contaminants 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.

Essential Learning Outcome Mapping:

Critical/Creative Thinking: Analyze, evaluate, and synthesize information in order to consider problems/ideas and transform them in innovative or imaginative ways.

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, as determined through the use of the ICRA matrix.
3. Explain the benefit of performing construction/renovation in a negative air environment.
4. Demonstrate the use of a High Efficiency Particulate Air (HEPA) machine to maintain a negative air environment.
5. Install both hard and soft wall enclosures in the work area to prevent the spread of contaminants in the facility.
6. Discuss the New York City guide lines for mold remediation.

Methods of Evaluation:

1. Quizzes
2. Tests

3. Class participation
4. Hands-on skill-based demonstration projects

Course Content Outline:

TOPICAL OUTLINE:

A. Hazardous Materials in Health-care Environments

1. Lead
2. Asbestos
3. Silica
4. Fungi
5. Bacteria
6. Medical Waste
7. Mercury
8. Radiation

B. Exposure Limits

1. Time-Weighted Average
2. Action Level
3. Permissible Exposure Limit
4. Recommended Exposure Limit
5. Excursion Limit

C Immediate Danger to Life and Health

1. Effects of Exposure
 - a. Acute Effects
 - b. Chronic Effects

D. Hazardous Material Plan

1. Right-to-know
 - a. Material Safety Data Sheets
2. Personal Protective Equipment
 - a. Clothing
 - b. Respirator
 - c. Protection factor

E. Types of Health-Care Facilities

1. Assisted-Living Facilities
2. Behavioral Facilities
3. Hospitals
4. Laboratories
5. Long-Term Care Facilities
6. Short-Term Care Facilities
 1. Twenty-four Hour Facilities
7. Veterinary Hospitals

F. Uniqueness of Environment

1. Immune Compromised Patients
2. Hospital Acquired Infections
4. Contaminants

G. Individual Responsibilities

1. Security
2. Medical Codes
3. Appearance
4. Conduct
5. Patient Privacy

H. Regulatory Agencies

1. Center for Disease Control and Prevention
2. The Joint Commission
3. Center for Medicare and Medicaid Services

4. Infection Control Professionals

5. Facility Administrative Controls

a. Infection Control Risk Assessment Team

i. Infection Control Risk Assessment Form

1. Project type
2. Patient risk group
3. ICRA Matrix

b. Interim Life Safety Measures Team

i. Fire safety personnel

ii. Facility maintenance personnel

I. Controlling Contaminants

1. High-Efficiency Particulate Air Machine

- a. Negative air environments
- b. Positive air environments
- c. Setting up machine
- d. Discharge air
- e. Air monitoring

2. Containing Work Area

- a. Isolation of HVAC systems
- b. Walk-off mats
- c. Patient protective apparel
- d. Personal protective equipment
- e. Signs and demarcation
- f. Barriers

i. Soft wall systems

ii. Portable cube

iii. Hard wall systems

g. Pre-Work Activities

i. Safety considerations

ii. Communication with facility staff

iii. Decommissioning

iv. Routing

v. Daily inspections and monitoring

vi. Air sampling

h. Work Activities

i. Protection of finishes

ii. Installation of barriers

I. Work Area Classification

i. Class I

ii. Class II

iii. Class III

iv. Class IV

Resources

Carpenters International Training Fund. *Best Practices in Health-Care Construction in Occupied Facilities*. CURRENT. Las Vegas Nv
Carpenters International Training Fund, 2024.

Carpenters International Training Fund. *Awareness: Hazardous Material, Lead, Asbestos, Silica, and Mold*. Current. Las Vegas Nv
Carpenters International Training Fund, 2024.

Carpenters International Training Fund. *Bloodborne Pathogens*, 5th edition. Jones and Bartlett Publishers Burlington MA, 2010.

Infectious Control Risk Assessment (ICRA): Best Practices in Health-Care Facilities. Revision 1. Las Vegas Nv Carpenters International Training Fund, 2016.

Carpenters International Training Fund. "Awareness: Hazardous Material, Lead, Asbestos, Silica, and Mold. Current" Las Vegas Nv Carpenters International Training Fund, 2008.

Resources Other

1. [www. Biologicalcontrols.com](http://www.Biologicalcontrols.com)
2. www.cdc.gov (<http://www.cdc.gov>)
3. Infection Control Training for Construction I UBC-ICRA (<https://ubc-icra.org/>)
4. Construction ICRA – Best Practices in Healthcare Construction • (carpenters.org) (https://www.carpenters.org/video_gallery/construction-icra-best-practices-healthcare-construction/)
5. [Carpenter's International Training Fund. https://www.carpenters.org/citf-training/](https://www.carpenters.org/citf-training/) ; 2024.

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