

Heat Stress/Hypothermia Syllabus

Time: 8 hours

Maximum Class Size: 20

Prerequisites: None

Course Description:

Construction Craft Laborers and apprentices are frequently exposed to weather conditions, confined spaces and the effects of wearing protective suits or coveralls. This course will prepare the participant to recognize, prevent and care for the hazards associated with hot and cold environments. The participant will also learn to identify signs of skin cancer and the protective effects of sunscreen.

Goals/Objectives/Student Learning Outcomes:

- Prevent, recognize and care for the events associated with heat stress
- Identify the progression of heat cramps, heat exhaustion, and heat stroke
- Identify the safe proportions of electrolytes and water needed daily
- Describe the functions of sodium (Na) and potassium (K) in the body and how they relate to heat stress
- Identify common causes of skin cancer
- Describe how to protect exposed skin from the sun's rays.
- Prevent, recognize and care for the events associated with hypothermia

Standards

- Section 5(a)(1) of the Occupational Safety and Health Act (OSHA) of 1970, employers are required to provide their employees with a place of employment that "is free from recognizable hazards that are causing or likely to cause death or serious harm to employees."
- Cal/OSHA Subchapter 7. General Industry Safety Orders Group 2. Safe Practices and Personal Protection Article 10. Personal Safety Devices and Safeguards

Classroom Rules and Procedures

- All classes begin at 6:30 am and end at 3:00 pm
- Upon entering classroom, all participants must sign in and be seated by 6:30 am

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- Class will consist of a combination of lecture, video, demonstration, coached group exercises, individual exercises and assessment.
- Students are required to report to class ready to work and maintain the provided PPE

Textbooks/Readings/Materials

- LIUNA Training & Education: *Heat Stress* IG/PG
- LIUNA PowerPoint: Heat Susceptibility
- Handouts:
 - Dietary Reference Intakes: Electrolytes and Water (National Academies)
 - Potassium and Health (Colorado State University)
 - Top 10 Foods Highest in Sodium (HealthAliciousNews.com)
 - FAQ about Extreme Heat (CDC)
 - Heat Stroke Claims Novice Hiker (LA Times.com)
 - What You're Looking For –skin cancer photos
 - Skin Cancers (National Cancer Institute)
 - How Does Sunscreen Protect Skin (Scientific American)
 - Hypothermia (Benjamin Wedro, M.D.)
- DVDs:
 - Heat Related Emergencies DVD (First Aid/CPR for the Workplace, American Red Cross)
 - Water, Rest, Shade (Summit Training)
 - Heat Stress (Summit Training)
 - Cold Related Emergencies (American Red Cross)
 - Cold Related Emergences (Workplace Training)
- Gatorade Performance 20 oz.

Personal Protective Equipment

- 12 pairs of gloves
- 12 pairs of Safety Glasses
- 20 pairs of Ear plugs
- 12 hard hats

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Course Requirements

In order to receive credit for the course, participants must:

- Be present for full eight hours
- Participate in all classroom exercises
- Pass a written exam

Course Policies

- Participants must be on-time and ready to work.
- Participants must return from breaks on-time.
- Participants must participate in each exercise and assignment

Assessment and Grading

Participants will be assessed on the following:

- All written exams must be passed with a score of 80% or above.
- All hands-on exercises are graded on performance and participation. They are pass/fail and must be passed with a score of 80% or above.

Safety

Failure to maintain and use PPE may result in dismissal from the course.