



Lithium-Ion Battery Manufacturing, Assembly and Handling

Course information sheet

Course duration 8 hours | Online

Course overview

This eight-hour online course develops safety and work-planning knowledge for personnel in lithium-ion battery manufacturing, assembly, and handling. Participants examine electrical, chemical, and fire hazards; high-voltage battery construction; safe handling of cells and lower-voltage modules; enclosed battery systems; electrical thresholds; and risk assessment for assigned tasks. Sodium-ion and traditional battery chemistries may be included in customer-specific examples as needed.

Who should attend

Manufacturing and testing line workers, safety representatives, supervisors, managers, planners, engineers, and others involved in handling high-voltage battery components or overseeing assembly work.

Learning outcomes

- Explain how lithium-ion cell, module, and enclosed high-voltage battery construction affects electrical exposure.
- Recognize electrical, chemical, and fire hazards during battery handling and assembly.
- Discuss safe handling of cells and lower-voltage modules within employer procedures.
- Use electrical thresholds and task conditions to identify when qualified battery workers are needed.
- Apply a discussion-based risk assessment to select appropriate controls and safe work practices for an assembly scenario.
- Compare relevant sodium-ion or traditional battery chemistry considerations when included for a customer's systems.

Topics covered

Lithium-ion battery construction and assembly stages; cell and module handling; enclosed high-voltage systems; electrical, chemical, and fire hazards; electrical thresholds; safety boundaries and PPE considerations; qualified worker roles; risk assessment and safe work planning; customer-specific chemistry comparisons.

Format and scope

Online instructor-led presentation, guided discussion, and assembly work-planning scenarios. This course introduces controls and safe work practices; it does not include hands-on assembly, electrical PPE practice, or qualification assessment. Employer procedures and equipment instructions govern task-specific methods.

The course does not prepare participants to wear electrical PPE or establish qualification as a battery worker. Employers determine task-specific training, procedures, and authorization.

Course inquiries 509-396-3008 | ElecTrain.com