## Curriculum Notes
- **185 Hours**
- Includes 100 hours of Maritime Industry Fundamentals, which is a prerequisite for Level One completion and must be purchased separately.
- Published: 2013
- Downloadable instructor resources that include module tests, PowerPoint®, and performance profile sheets are available at www.nccer.org/irc.

### Modules
- **Orientation to the Maritime Pipefitting Trade** (5 Hours)
  - (Module ID 85101-13) Provides an overview of the maritime pipefitting trade and its career opportunities. Trade safety principles are introduced, as well as the responsibilities and characteristics of a good pipefitter.
- **Maritime Pipefitting Trade Math** (15 Hours)
  - (Module ID 85102-13) Explains how to solve a wide variety of maritime pipefitting math problems, including those related to common geometrical figures. The process of determining lengths in pipe offsets for general and rolling offsets is also presented.
- **Pipefitting Hand Tools** (20 Hours)
  - (Module ID 85103-13) Covers hand tool safety, as well as procedures for selecting, inspecting, using, and maintaining pipefitting hand tools. Includes pipe wrenches, pipe stands, pipe vises, levels, and pipe fabrication tools and aids.
- **Threaded Pipe Fabrication** (15 Hours)
  - (Module ID 85205-13) Describes the pipe fittings used for maritime threaded piping systems and how to assemble threaded pipe components.
- **Brazing** (12.5 Hours)
  - (Module ID 85204-13) Describes the procedures for preparing various types of pipe and tubing for brazing, as well as the brazing process. Discusses the selection of brazing filler metals for various applications.
- **Pipefitting Power Tools** (15 Hours)
  - (Module ID 85105-13) Describes the procedures and safety requirements related to pipefitting power tools. Detailed instructions for setting up, lighting, and using pipefitting power tools are provided. Common techniques, such as straight line cutting, beveling, and gouging are reviewed. Oxyfuel gas supply arrangements from both cylinders and manifolds are also presented.
- **Oxyfuel Cutting** (17.5 Hours)
  - (Module ID 85106-13) Explains how to identify various types of oxyfuel cutting torches and their safe use. The pre-use inspection requirements for both oxyfuel cutting torches and related gasket materials are described.
- **Ladders and Scaffolds** (12.5 Hours)
  - (Module ID 85107-13) Covers hand tool safety, as well as procedures for selecting, inspecting, using, and maintaining power tools that are common in the maritime environment. Procedures for setting up, lighting, and using power tools that are common in the maritime environment are also provided.
- **Piping Systems** (5 Hours)
  - (Module ID 85201-13) Identifies and explains basic types of piping systems found in the maritime environment and the materials used for various applications. Explains how thermal expansion in piping systems is accommodated. Includes coverage of common insulation types and installation practices.
- **Identifying Valves, Flanges, and Gaskets** (20 Hours)
  - (Module ID 85207-13) Describes the pipe fittings used for maritime threaded piping systems and how to assemble threaded pipe components.
- **Fiberglass and Plastic Pipe** (12.5 Hours)
  - (Module ID 85206-13) Introduces various types of fiberglass and plastic pipe and their maritime applications. Explains how fiberglass and plastic piping materials are measured, cut, and joined.
- **Threaded Pipe Fabrication** (15 Hours)
  - (Module ID 85205-13) Describes the pipe fittings used for maritime threaded piping systems and how to assemble threaded pipe components.
- **Drawings and Detail Sheets** (20 Hours)
  - (Module ID 85208-13) Identifies the types and parts of drawings commonly used by maritime pipefitters. Explains how to interpret the information contained in pipe drawings to create the desired piping system.