

Instrumentation, Automation, and Control Engineering (STRCTR-230)

Length 80 hours (10 days)

This Course is USCG Approved and STCW Compliant. The course certificate will state:

“This course is hereby recognized as a Coast Guard Approved Training Course as outlined in Subpart C of Part 11, Title 46, Code of Federal Regulations and will meet the competency requirements of Section A-III/2, Table A-III/2 of the STCW Code as amended, within the function Electrical, Electronic, and Control Engineering at the Management Level for the Knowledge, Understanding, and Proficiency areas:

- Those portions concerning Automatic Control Engineering and Safety Devices, Design Features and System Configurations of Automatic Control Equipment and Safety Devices for Main Engine, Design Features and System Configurations of Operational Control Equipment for Electrical Motors and Features of Hydraulic and Pneumatic Equipment contained under the competency of Manage Operation of Electrical and Electronic Control; **AND**
- Those portions concerning Troubleshooting of Control Equipment, Function Test of Electronic Control Equipment and Safety Devices and Troubleshooting of Monitoring Systems contained under the competency of Manage Operation of Electrical and Electronic Control competence; **OR**
- Any applicant successfully completing this course will be credited 30 days sea service toward the upgrade of their Third Assistant Engineer Unlimited Motor license. This course does not satisfy the requirements for recency for sea service.”

Scope

The course introduces the student to the subject of Instrumentation, Automation, and Control Engineering at the Management Level. Instrumentation portion of the course will cover several topics such as: temperature, pressure, level, flow, position, speed, viscosity, and torque measurement; Control portion this will cover several topics such as: PID controllers; and the Automation portion will cover several topics such as machinery control systems, PLCs, microprocessors and microcontrollers.

Objective

To enhance the knowledge and understanding of Management Level Engineering officers in the areas of instrumentation, automation and controls. These topics are as required by Section A-III/2, Table A-III/2, Electrical, Electronic and Control Engineering at the Management Level and are in compliance with STCW 2010 Amendments.

Entry standards

- Hold a license credential endorsed for Officer in Charge of an Engineering Watch as Assistant Engineer, DDE (Limited Engineer), or 3 A/E unlimited horsepower or higher.
- Proficient in the English language

Please be prepared for class with the following:

- No extra class material required

Teaching Facility

STAR Center, Dania Beach, Florida