

## **Advanced Stability (STRCTR-25)**

**Length** 40 hours (1 week)

### **Objective**

Each student who successfully completes this course will be knowledgeable of and have proficiency in advanced stability. Additionally, students will gain an understanding of fundamental principles of ship construction and the theories and factors affecting trim and stability and measures necessary to preserve trim and stability; knowledge of the effect on trim and stability of a ship in the event of damage to and consequent flooding of a compartment and countermeasures to be taken and knowledge of IMO recommendations concerning ship stability. Upon completion of this course, the students will be knowledgeable of and will have demonstrated proficiency in the following areas:

- Transvers Stability
  - IMO recommendations concerning ship stability
  - Determine KG, KM GM
  - Inclining experiment
  - Stability at large angles
  - Free surface
- Longitudinal Stability
- Hull Strength
- Damaged Conditions
  - Collision
  - Grounding
- Practical Stability Considerations
  - Rolling
  - Watertight integrity
  - Effects of cargo on trim and stability
  - Timber cargo
  - Ice accumulation
- Dry docking

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

“Any applicant who has successfully completed our 40-hour Advanced Stability course will satisfy the Advanced Stability training requirements of 46 CFR 11.305(a)(3)(ii) and 11.307(a)(3)(ii) for STCW endorsements as Chief Mate or Master on vessels of 3,000 GT or more and 46 CFR 11.311 (a)(3)(ii) and 11.313 (a)(3)(ii) for STCW endorsements as Master or Chief Mate on vessels of more than 500 GT and less than 3,000 GT AND; The specific tasks from the National Assessment Guidelines found in NVIC-10-14 and NVIC-11-14: 9.10.A; 9.16.B; 11.1.B; 11.2.A; 11.3.A; 11.3.B; 11.3.C; 11.3.D; 11.4.A; 11.5.D; 14.1.A; 14.1.B; 14.1.C; 14.1.D; 14.2.A; 14.3.A; 17.2.A. Tasks 11.3.A, 11.3.B, 11.3.C, and 11.3.D will be recognized as equivalent to assessments M-9-1A, M-9-1B, M-9-1C and M-9-1D found in Policy letter 04-02 through December 31, 2016. Applicants who have successfully completed our course need not present completed “Task Control Sheets” for these assessments in application for STCW certification.”

### **Scope**

This course is intended to meet the training requirements as listed above in the USCG Approved and STCW Compliant Course Certificate section.

### **Entry Standards**

This course is open to students who have a need for such training as required by the United States Coast Guard and STCW as amended. Each student should have an STCW Certification as an “Officer-in-Charge of a Navigation Watch” or have an equivalent and experiential background, be in good physical health and speaks and understands English. At least 21 years of age.