# MDK 345 - DRY CARGO STOWAGE

## **Course Description**

Principles and problems of the stowage and carriage of cargoes. Bulk cargo, container cargo, refrigerated cargo, grain cargoes and dangerous cargoes. Cargo handling operations both loading and offloading equipment. Cargoes stowage plans will be developed and reviewed. Students will critique loads they were involved with during their time aboard ship. STCW.

## **Credit Hours**

3

## **Contact Hours**

3

## **Lecture Hours**

3

## **Required Prerequisites**

All prerequisites for all GLMA courses are satisfied by following the approved Course Sequence Guide and any deviation from this guide needs to be approved by the cadet's adviser.

## Recommended Prerequisites or Skills Competencies

ENG 111 and MTH 111

## **Course Learning Outcomes**

#### Knowledge:

- · Describe the general principles of ship construction.
- · Describe the design criteria for hull structures.
- · Identify which cargoes are most often transported in bulk.

#### Application:

- · Demonstrate a knowledge of hull nomenclature.
- · Describe methods of loading bulk cargoes.

## Integration:

- · Perform complex hull stress calculations.
- · Demonstrate the skills of a professional merchant marine officers.
- · Create a loading plan for a commercial vessel.

#### **Human Dimension:**

 See themselves as cargo officers as well as officers in charge of a navigational watch.

### Caring - Civic Learning:

- Reflect on the ethical issues/ considerations involved with serving as a licensed officer in the merchant marine.
- Maximize the commercial interests of the vessel while ensuring the safety of their shipmates by adhering to proper cargo handling techniques.

## Learning How to Learn:

- · Transfer loading plan knowledge to real-life situations.
- Demonstrate the STCW Code KUPs for Officer in Charge of a Navigation Watch: 10.1, 10.2, 10.3.A.