



## **PARTNERS ACADEMIC SUMMER SCHOOL 2026**

### **Syllabus for Marine Engineering & Naval Architecture**

#### **Subject Area**

This syllabus is for PARTNERS applicants seeking to progress to the degrees of:

- H515 BEng Honours Naval Architecture and Marine Engineering
  - H517 MEng Honours Naval Architecture and Marine Engineering
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#### **Aims**

To allow students to demonstrate their potential to succeed in specified degree programmes by showing a grasp of entry-level subject-specific knowledge, understanding, cognitive and subject-specific skills.

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#### **Learning Outcomes**

A good knowledge and understanding of ...

- Understand the importance of inclining experiment and the process and calculations involved in the experiment and subsequent calculation of ship's Centre of Gravity
- Understand the concept of subdivision in cargo holds
- Understand the need for wind assisted ships

The ability to apply this knowledge and critical understanding to...

- They will run an inclining experiment in the Hydrodynamics lab and find the centre of gravity by analysing the results.
- They will run an experiment to evaluate the effect of subdivision.
- They will design and build a small wind assisted system for a ship model

Competence in...

- Data collection
  - Data analysis
  - Design
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## Summer School Syllabus

### Content:

- Inclining experiment; the procedure and calculations
- Subdivision of Cargo holds
- Wind assisted ships in modern shipping

### Teaching methods:

- Lecture
- Online material
- Laboratory practical session
- PC cluster session

### Objectives:

- Understand the importance of inclining experiment and the process and calculations involved in the experiment and subsequent calculation of ship's Centre of Gravity
  - Understand the concept of subdivision in cargo holds
  - Understand the need for wind assisted ships and their various designs
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## Activities for Personal Study

- Studying the online material
  - Working in their group around the design of their wind assisted system
  - Completing the logbook of their activities
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## On-Campus Teaching:

Wednesday 1<sup>st</sup> (PM only), Thursday 2<sup>nd</sup> & Friday 3<sup>rd</sup> July

## Online Teaching:

Monday 29<sup>th</sup> & Tuesday 30<sup>th</sup> June

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## Formative Assessment Details

A Reflective logbook to document your learnings from various practical activities and the subsequent calculations/designs and results.

More details will be given during the event by your Academic Strand Lead.

## Hand-in Method

Digital

## **Assessment deadline**

Friday 10<sup>th</sup> July