



# Mastering Daily Navigation

## 1. Introduction

Combine the essential aspects of navigation that every officer of the watch should know with practical onboard scenarios. Focus on refreshing the knowledge necessary to ensure safe navigation of the vessel and give every officer the ability to identify and accurately judge the situation. While the rapid advancement of the navigational equipment continuously improves the overall safety of navigation, bridge officers

face a new kind of challenge. The latest technological shifts often lead to over-reliance on machines and the classical navigation moves out of focus. Combined with the complexity of the equipment interface, it is becoming increasingly clear that watchkeeping officers must be able to practice classical navigation concepts in conjunction with modern-day technology.



### Characteristics

Course Duration: 2 hours estimated  
Course Access: 3 months  
Course Language: English



### Flexible Learning

This course is available online, any time of the day and at your own convenience.



### Certificate Validity

The validity of the certificate issued upon the successful completion of this course is indefinite.



### Need Support?

We are here to assist you throughout the course.

## 2. Target Audience

This course is ideal for all ranks of bridge watchmen including:

### Cadets

Who wish to connect their theoretical knowledge with real-life scenarios

### Officers

Who want to refresh what they learned when they acquired their CoC

### Captains

Who would like to have a fresh view on how to combine traditional navigational tools with modern technology.

## 3. Prerequisites

- 1. Required:** Basic nautical knowledge
- 2. Recommended:** understanding of terrestrial and electronic navigation, especially basic knowledge of ECDIS
- 3. Recommended:** practical experience onboard

## 4. Learning Objectives

As a refresher tool, "Mastering Daily Navigation", provides vital learning experience on navigational knowledge through practical use-cases. Moreover, the course places everything into the context of a modern bridge, in

order to offer a 360° view on daily navigation. The educational material is provided with real-life situations for a more powerful impact in the learning process.



## 5. Course Structure

Mastering Daily Navigation is broken down into three core modules with the following sub-topics:

### Module 1

#### Basic mathematics in navigation

- One by sixty rule
- Vector Calculation for Set and Drift
- Time Zones and Conversions

### Module 2

#### Lines and Coordinates on the Earth's surface

- Great Circle and Rhumb Line
- Difference of Latitude and Longitude
- Magnetic North and True North
- Chart Projections and Chart Scales
- Buoys and Beacons
- Cardinal Marks

### Module 3

#### ECDIS Mindset

- Dangers of Chart Scaling and SCAMIN
- Isolated Danger Marks
- Manual Chart Updates vs User Chart Objects

## 6. Learning Outcomes



### Basics of Passage Planning

The basics of passage planning will enable you to correctly evaluate tidal information, judge where no-go areas are required and create them accordingly. It will also allow you to make good use of clearing lines in confined waters, as well as use existing leading lights for quick and safe position cross check.



### Confined Waters Pilotage

The module "Digital Passage Planning", will teach you the need-to-know details about the preparation of such a plan, a comparison between classic paper charts and the ECDIS, as well as guide you on how to correctly include a vessel's turn radius in the planning phase.



### Basics of Passage Planning

Completing this model will familiarise you with advanced predictor functions on the ECDIS, to increase turn safety, parallel index line procedures and the usage of anchor watch tools.

## 9. Product Data Sheet: Safe Navigation in Confined Waters

|                               |  |   |
|-------------------------------|--|---|
| <b>Modules</b>                | Module 1: Basic mathematics in navigation<br>Module 2: Lines and Coordinates on the Earth's surface<br>Module 3: ECDIS Mindset   |   |
| <b>Duration</b>               | 3 months   |   |
| <b>Timeframe</b>              | Approx. 2 hours  |   |
| <b>Language</b>               | English  |   |
| <b>Assessment</b>             | TestMe<br>Daily Attempts: 3<br>Min % of progress on GuideMe to access TestMe: 70%<br>Min % of passing the TestMe: 90%<br>Total test time: 45min  |   |
| <b>Price (Excl. VAT)</b>      | 60,00 €  |   |
| <b>Approval</b>               | -  |   |
| <b>Features</b>               | GuideMe, TestMe  |   |
| <b>Certificate</b>            | Yes (Indefinite)   |   |
| <b>Prerequisites</b>          | Basic nautical knowledge is the only prerequisite for this course  |   |
| <b>Educational Objectives</b> | Refresher of knowledge needed in everyday navigation.  |   |
| <b>Target audience</b>        | OOW (Officers of the Watch)  |   |
| <b>Strong Authentication</b>  | No   |   |
| <b>Technical Requirements</b> | <p><b>Browser:</b> Chrome, Firefox, Internet Explorer, Safari, Edge.</p> <p><b>Operating Systems:</b><br/>         Windows 8 or higher with latest updates installed<br/><br/>         MacOS 10.12 Sierra or higher with latest updates installed<br/><br/>         Apple iOS 11 or higher with latest updates installed</p> | <p><b>Internet Connectivity:</b> We recommend the use of a wired internet connection when taking this course. Connection via mobile internet is also possible; however, it is considered unstable and might cause the failure of your exam.</p> |