



## DIGITAL SOLUTIONS

# NAUTICUS SHAFT FATIGUE WITH ICE CLASS

Course code: NA-14

Duration: 1 day

Prerequisite:

Some understanding of shaft fatigue analysis and ice class requirements of the propulsion system.

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## DESCRIPTION

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The course covers DNV GL's detailed shaft design method and strength capacity requirements on shafting according to Finnish-Swedish Ice Class and IACS Polar Ice Class.

The following topics are covered:

- DNV GL's simplified and detailed shaft design method
- Ice class strength requirements on shafting
- Estimate ice impacting torque and its response on the shafting
- Blade failure load check
- Cumulative fatigue strength analysis
- Parameter studies for stress concentration factors

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## LEARNING OBJECTIVES

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The main objective is to learn DNV GL's simplified and detailed shaft design method and code check of ice class strength requirements on the shafting by using Nauticus Machinery Shaft Fatigue software.

Through presentations and hands-on training you will learn how to use Nauticus Machinery Shaft Fatigue and how to check the additional ice class strength effectively.

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## TARGET GROUP

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Naval architects, designers, ship yards and approval engineers with no or limited experience using Nauticus Machinery and limited understanding of ice class rules.