Course Specifications
From the academic year 2015-2016 up to and including the

General Arrangement, Structural Arrangements and Construction of Marine Structures (E055030)

Course size (nominal values; actual values may depend on programme)

<table>
<thead>
<tr>
<th>Credits</th>
<th>Study time</th>
<th>Contact hrs</th>
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<tbody>
<tr>
<td>6.0</td>
<td>180 h</td>
<td>60.0 h</td>
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Course offerings and teaching methods in academic year 2018-2019

A (semester 2)  Dutch  project  30.0 h

B (semester 2)  English  project  30.0 h

Lecturers in academic year 2018-2019

Lataire, Evert  TW15  lecturer-in-charge

Offered in the following programmes in 2018-2019

<table>
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<tr>
<th>Credits</th>
<th>offering</th>
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<tr>
<td>6</td>
<td>B</td>
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<td>6</td>
<td>A</td>
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<td>6</td>
<td>A</td>
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Teaching languages

Dutch, English

Keywords

Ships, offshore structures, shipbuilding, freeboard assessment, tonnage measurement

Position of the course

Further imparting of the basic technical know-how concerning marine structures, required for engineering staff in maritime organisations such as ship owners, harbour services, dredging companies and classification societies.

Contents

- Scantlings according to the rules of the classification societies: structural details for thin-walled structures subject to fatigue loads, longitudinal strength; influence of superstructures on longitudinal strength, midship section design according to the rules of the classification societies
- Shipyard practice: an outline
- Ship equipment: an outline
- Freeboard assessment and tonnage measurement
- A methodology for general design
- Special features of the general and structural design of specialized vessels: Tankers, bulk carriers, container ships, dredgers, tugs, fishing vessels,

Initial competences

Introduction to marine technology, Mechanics of materials, Mechanics of structures,
Turbo machinery, Piston machinery

Final competences

1. Master the terminology in relation to maritime constructions, structure and exploitation.
2. Description and naming of the relevant parts of maritime constructions.
3. To be able to explain the relationship between the load, the response and the strength of maritime constructions.
4. Gaining insights in the different failure mechanisms as a result of the load on a maritime construction.
5. Understand the calculation methodology for the design of basic parts and elements of maritime constructions.
6. To be able to explain the mathematical and scientifical basis in relation to used formulae in the design of a maritime construction.
7. Possess basic knowledge, required for the design, construction, control or exploitation of maritime constructions.
8. Assessment and estimation of the strength of parts and elements of a maritime construction.
9. Apply direct calculation, based on material strength, and the use of class rules for the design of maritime constructions.

Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Guided self-study, lecture, project

Learning materials and price

Syllabus, price 16 EUR

References

• Scheepskennis (K. van Dokkum, Dokmar, Delfzijl 2001)
• Principles of Naval Architecture (SNAME, Jersey City, laatste editie)

Course content-related study coaching

Evaluation methods

day-of-term evaluation and continuous assessment

Examination methods in case of periodic evaluation during the first examination period

Oral examination

Examination methods in case of periodic evaluation during the second examination period

Oral examination

Examination methods in case of permanent evaluation

Report

Possibilities of retake in case of permanent evaluation

examination during the second examination period is possible in modified form

Extra information on the examination methods

During examination period: oral closed-book exam. During semester: graded project reports.

Calculation of the examination mark

Specific conditions: Not periodical evaluation: 33%