inf551 - Maritime Systems

Module label: Maritime Systems
Module code: inf551
Credit points: 6.0 KP
Workload: 180 h

Used in course of study:
- Master's Programme Business Informatics > Bereichswahlmodule
- Master's Programme Computing Science > Angewandte Informatik
- Master's Programme Engineering of Socio-Technical Systems > Embedded Brain Computer Interaction
- Master's Programme Engineering of Socio-Technical Systems > Human-Computer Interaction
- Master's Programme Engineering of Socio-Technical Systems > Systems Engineering

Contact person:
Module responsibility:
- Axel Hahn
- Die im Modul Lehrenden

Authorized examiners:
- Axel Hahn
- Die im Modul Lehrenden

Entry requirements:
The module deals with the economic aspects and synergy effects of maritime sub-areas. In addition to the basic knowledge of the maritime sub-areas, current approaches from research are taught. The basic ship parameters are examined with regard to their economic efficiency, stability calculations and ship dynamics are derived and effects of the ship hull, propellers and systems on the economic efficiency of a ship are considered. The focus here is on understanding economic thinking and the interaction of the sub-areas. Furthermore, future-oriented solutions and trends will be discussed.

Professional competence:
The students:
- name the basics of planning and control of operational logistics in a shipyard
- name the basics of planning of economic design
- recognise the application possibilities of simulation in design, construction and dynamics
- identify the basic maritime sub-areas and their synergies

Methodological competence:
The students:
- Link relations with tree structures
- Illustrate the questions and concepts of the design process

Social competence:
The students:
- Present computational problem solving to groups
- Discuss their outcomes appropriately
- Implement solutions of given problems in teams
- Accept criticism of their peer group as valuable contributions

Self-competence:
The students:
- reflect their self-image and their actions of their results

Module contents:

Reader's advisory:

Links:
http://www.wi-ol.de

Languages of instruction: German, English

Duration (semesters): 1 Semester
Module frequency: annually in winterterm
Module capacity: unlimited
Module level: AS (Akzentsetzung / Accentuation)
Modulart: Wahlmodul / Opportunity
Lern-Lehrform / Type of program: lecture and exercise
Vorkenntnisse / Previous knowledge: transport systems, analysis, differential equations, linear algebra, mechanics

Examination:
Time of examination: at the end of the lecture period
Type of examination: practical exercises and oral examination
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**Total time of attendance for the module**

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